

FREEDOM AND PROCESS

Using Process Accounts From Dewey and Whitehead to Shed Light on the
Contemporary Free Will Debate

by

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Abstract:

Both Hilary Bok, in “Freedom and Practical Reason,” and Robert Kane, in “Responsibility, Luck, and Chance: Reflections on Free Will and Indeterminism,” make at least implicit use of process-based accounts of deliberation to establish their positions. But Bok is a compatibilist while Kane is a libertarian—the usefulness of the notion of process to opposing sides of the contemporary free will debate suggests that it might be this notion that is doing the work for Bok and Kane rather than elements specific to their separate doctrines. At the very least it suggests that an exploration of process will offer a better understanding of the interplay between compatibilism and libertarianism in the free will debate.

In this thesis, I discuss the process-based accounts of John Dewey and A. N. Whitehead—primarily from Dewey’s *Human Nature and Conduct* and Whitehead’s *Process and Reality*—in an effort to bring out features of such accounts that are relevant to the issues of free will and human action. Following focused discussions of Dewey and Whitehead I explore how their specific accounts bear upon the positions of Bok and Kane in their aforementioned articles, and conclude that Dewey and Whitehead would reject both the compatibilist and libertarian positions, taking up something of a middle ground between the two views. I then end the thesis by exploring how a more general process account of human action bears upon Bok and Kane, concluding that it is possible to reconcile their views with such a general account with only some reinterpretation and restriction of their positions. In general, I conclude that process-based accounts of human action favour neither compatibilist nor libertarian positions, but rather a mixture or middle ground between the two.

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Chapter I: Introduction

The contemporary free will debate is mostly made up of attempts to save free will from the apparent threat of determinism, a thesis which asserts that every event is determined by a combination of the previous state of the universe and the laws of physics. The debate is centred largely on the opposition between compatibilists, who argue that free will can exist in a deterministic universe, and libertarians, who argue that at least some exception to determinism is required for free will to exist. Despite this opposition, both sides have the same general goal in mind: to establish a basis for a belief in free will, which may in turn provide a basis for holding people responsible for their actions. The generally accepted view is that free will is required for responsibility—if an agent performs an act freely it seems obvious that the agent would be wholly responsible for that act, whereas the agent would not be responsible were that act performed under coercion or some other restriction. One way this is often put is that an agent is only truly responsible for performing an act if they could have done otherwise. This “could have done otherwise” is precisely what compatibilists and libertarians are attempting to establish. The former say that agents could have done otherwise than they actually did, at least in a certain sense, even in a wholly deterministic universe. On the other hand, the latter say that such a universe precludes the possibility of agents doing otherwise than they did in precisely the sense that matters most and that if determinism is not completely false then at least some exception to it is needed for free will to exist.

Two recent contributions to the free will debate were made by Hilary Bok and Robert Kane. Bok, a compatibilist, argues in “Freedom and Practical Reason” that given the very nature of deliberation—which she calls “practical reasoning”—

information about the truth or falsity of determinism as well as, if determinism is true, information about what it is we are determined to do cannot play any part in our deliberations. Even if I were to keep with me an incredibly powerful little computer that was able to perfectly predict all my actions, which Bok refers to as a Pocket Oracle, any information it would give me could not be used in my attempts to decide what to do. Only three possibilities for how I would react to the information would come up: first, I might automatically do something different, out of sheer contrariness or perhaps just a desire to not be so predictable, in which case the Pocket Oracle would be unable to make a prediction because in doing so it would render that prediction false. No matter what prediction it makes about what I will do, I would then choose to take account of the information it gives me by doing something different—the Oracle would be stuck in a paradox and unable to make a true prediction. Second, I might just automatically do whatever it is the Pocket Oracle tells me I will do, in which case it will be stuck in a slightly different paradox where no matter what it tells me I will do just that, so it will be unable to make a prediction without first knowing which prediction it will make. In both of these first two cases, the Pocket Oracle is unable to make a true prediction because the contents of its prediction will affect what I will do—that is, I will take the information it gives me into consideration in my deliberation. (Bok 146) The third case is the one in which the Pocket Oracle's prediction does not play any part in my deliberation. This case has three sub-cases, depending on the exact reasons why the Oracle's prediction do not affect my deliberation: it could be because some state of affairs makes my course of action completely impossible for me to decide upon for myself—for instance, should I jump off the roof of a forty-storey building, the Pocket Oracle would have no

difficulty in predicting that my next action would be to hit the pavement below and die of my injuries, because no matter what I decide to do during the fall that is what will happen. It could also be because of some immovable will on my part—if I completely disregard what the Oracle tells me, its information will obviously have no effect on what I decide to do. Finally, if I am subjected to some overpowering temptation, such as in the case of alcoholism, the Pocket Oracle would be able to predict that no matter what it tells me I will give in to that temptation. (Bok 147-148)

All three of these sub-cases have one thing in common: unlike in the cases where I automatically do or don't do what the Oracle tells me, any predictions made by the Pocket Oracle are completely independent of what I eventually decide to do. The paradoxes that arise in the first two cases due to the dependence of the outcome of my deliberation upon the prediction of the Oracle do not arise in the variations of the third case, and the Pocket Oracle is able to make true predictions. But if true predictions of what I am determined to do can only be made when those predictions do not have any effect upon my deliberation, that is, upon my attempts to decide what to do, then clearly the information contained in such predictions is irrelevant to my deliberation. Even if determinism is true, and all my actions are determined, any information about what I am determined to do is useless to my deliberation, and thus my free will is fully compatible with determinism.

On the libertarian side of the debate, Kane argues in "Responsibility, Luck, and Chance: Reflections on Free Will and Determinism" that the exception to determinism that libertarians are looking for can be found in connected recurrent networks set up in the brain during intense deliberation. These kinds of networks, Kane argues, can result in genuine indeterminacy while still avoiding the criticism that

this indeterminacy is mere chance (Kane 307), thus being an improvement upon libertarian accounts based on quantum effects which fall into the same “mere chance” criticism as the famous Epicurean swerve of atoms. (Kane 301-302) The model of deliberation that Kane proposes is roughly the following: in instances of intense deliberation, when two or more competing outcomes are greatly desired, connected recurrent networks are set up in the brain. When one of these networks reaches its activation threshold, the deliberation is over and the outcome represented by that network is chosen. Since connected recurrent networks appear to be able to generate real indeterminacy, at least according to some neurological and computer science research, the outcome of the deliberation will be indeterminate, and yet all of the possible outcomes are desired. For instance, if I had to decide between helping a stranger and advancing my own agenda, the recurrent networks set up in my brain would make it indeterminate which choice I would make, and yet both choices are desirable to me—I want to do both. Kane argues that this is what makes the indeterminacy of his proposed model more than mere chance. No matter the outcome of my deliberation, it will be what I wanted to do, and therefore my responsibility.

The striking thing about these two accounts of free will is that despite their many differences they have something in common: they both at least implicitly use a process-based view of deliberation. This is most obvious in Kane’s case, where his reliance on recurrent neural networks in his model of decision making explicitly requires a process view, as without process there could be no recurrence in these networks. If decision making were only a momentary thing, there would be no room for any kind of recurrence, so Kane’s model must be based on a view of deliberation as a process.

Bok's reliance upon process for her account is slightly more difficult to see. Her account would seem to be just as compatible with the view that decision making is a momentary phenomenon as with the view that it is a process, as what she is focussing on is the kind of information that can be available to decision making. Whether or not the decision making itself is momentary or a process seems to be largely unconnected to her primary arguments. Yet Bok still implicitly relies upon process to provide the background of her account. While Bok focuses on what might be called the moment of judgment in what she calls practical reasoning, at the very least there needs to be some previous deliberative process involved in making her distinction between practical and theoretical reasoning. Without some public, likely social, process to make this distinction available, this distinction between matters of "what should I do?" (practical reasoning) and "what is the world like?" (theoretical reasoning) might go unnoticed, or, if certain branches of social constructivism are right, perhaps the distinction would not even exist. To Bok's credit, she seems to be aware of the importance of a process view of deliberation, her use of terms like "deliberative process" indicating that she recognizes it at least in the background even if she does not view the moment of judgment as a process. It is simply that her focus is upon that moment of judgment rather than any background process required to get there, so explicit discussion of process is not required for her argument.

But this mutual reliance upon a process view of deliberation by both a compatibilist and a libertarian raises an interesting possibility: if such a process view is useful to both sides of the free will debate, perhaps it is the process view itself that is doing the work in their accounts rather than any specifically compatibilist or libertarian elements. If both sides claim some degree of success, perhaps that success

is due to what they have in common rather than what separates them. At the very least, based on the accounts of Bok and Kane a process view of deliberation would seem to be necessary, if not sufficient, for a successful account of free will and responsibility. As important as it is, then, some exploration of process in how it relates to deliberation, free will, and responsibility would be in order. With this in mind, I will turn to two philosophers for whom process figured largely in their thought—John Dewey and A. N. Whitehead—for insights into what the specifics of a process view of deliberation might be before turning back to consider the free will debate anew in the light of these insights.

First, however, a general definition of process would be helpful. The online entry for process in the Oxford English Dictionary gives this as the most common use: “A continuous and regular action or succession of actions occurring or performed in a definite manner, and having a particular result or outcome; a sustained operation or series of operations.” This highlights several important features of a process: it is “continuous,” that is there exists some kind of continuity throughout the process; it can be an action or a “succession of actions,” each new action in the process succeeding upon the last; these actions are “performed in a definite manner,” such as being done in a particular order or meeting some other definite criteria; and there is “a particular result” of the process, this result presumably being repeatable by multiple iterations of the same process. To give an example of a simple process, consider the neutralization of an acid by a base: when the two substances are mixed, the chemical reaction occurs continuously until the acid has been completely neutralized—assuming that exactly the right amount of base has been used, of course—although the rate at which the chemical reaction occurs might change over time; when broken

down the process of neutralization consists of a large number of successive actions, these being each and every individual chemical reaction at the molecular level; the reaction occurs in a “definite manner” in that it obeys definite physical laws and displays certain regularities—a chemist would likely be able to calculate the rate at which the chemical reaction will take place, how much acid would be neutralized after a given period of time, and so on; finally, the “particular result” of the chemical reaction would be, as with all acid-base reactions, a mixture of water and a chemical salt such as sodium chloride (as in the case of mixing hydrochloric acid and baking soda). An even simpler example of a process would be a series of mathematical operations, such as adding one to a number and then dividing by two: there is continuity in the process in that the result of the first action (adding one) becomes the starting point for the next (dividing by two); the two actions that make up the process are clearly successive, one being performed after the other; the process occurs in a strict order, the addition of one always going before the division by two; and while the exact result of the process will vary with the numbers taken as the starting point—e.g. adding one to the number three and then dividing by two gives two, while performing the same operations on the number five gives three—the process will always give a single particular result given a particular starting point.

This is, of course, only a general definition of process. It is quite possible that Dewey and Whitehead will adopt different definitions, or at least add to this general one. It seems likely, though, that at least the basic notions of continuity, succession, definite order or manner of occurrence, and particular results will apply in the definitions of process used by both Dewey and Whitehead.

Chapter II: Dewey

Since a look at process is the primary aim of this paper, I will begin my discussion of Dewey by looking at what his definition of process is likely to be. I say “likely to be” because—at least in *Human Nature and Conduct*—Dewey does not explicitly give a definition of process. Thus I will have to try to tease such a definition out of the rest of Dewey’s views. Fortunately, there does not seem to be any reason to reject the general, dictionary definition I quoted earlier. Dewey does not explicitly give a definition of process, similar to the general definition or otherwise, because looking into the exact nature of processes is not his goal. Rather, his goal is to provide a description of human action as resulting from psychological, biological, and other naturalistic processes. He describes human action as a result of specific processes involving things like impulses, habits, desires, deliberation, inquiry, and intelligence, but this does nothing to contradict the general definition of process. It is simply a particular example of a process rather than something requiring a completely different general definition.

Now to move on to the specifics of Dewey’s view. Human action for Dewey is primarily based on two factors: impulse and habit. Impulse provides the motive force to action while habit provides the specific form of the action. In other words, habit determines the action into which the motive force of impulse is channeled. Impulse also has the possibility of modifying action, being a means by which habit may be changed. In terms of their sources, impulse is a native, in-born feature in human beings while habit is acquired through interaction with the physical and social environment; however, this does not mean that impulse is either more important or

more fundamental to Dewey's account of human action than habit. In fact, quite the opposite may be the case, as Dewey points out:

“In conduct the acquired is the primitive. Impulses although first in time are never primary in fact; they are secondary and dependent. The seeming paradox in statement covers a familiar fact. In the life of an individual, instinctive activity comes first. But an individual begins life as a baby, and babies are dependent beings. Their activities could continue at most for only a few hours were it not for the presence and aid of adults with their formed habits.” (*Human Nature and Conduct* 89)

Although all individuals start out with impulse alone and no formed habits, they would not survive were it not for the habits of those around them. In this way, habit is primary in human action—it allows for the very possibility of human action, as without it there would quickly cease to be any humans at all. Furthermore, and perhaps equally important, habit also gives meaning to action. Without the social environment of surrounding adults and their habits, even the purely impulse-driven actions of an infant who miraculously survives would be “mere sound and fury.” (*HN&C* 90) However, on the other hand, habit by itself with no impulse to drive it would result in complete inactivity. All the habit in the world would not be able to produce action without the motive force of impulse. So both impulse and habit together are necessary for human action on Dewey's view.

What has been said so far is, of course, only a very general overview. To get a better understanding of Dewey's account of human action, as well as the place of process within it, more extensive investigations of impulse and habit are required. In contrast to the ordering of topics in *Human Nature and Conduct*, which began with habit, I shall start with impulse, which is perhaps the simpler of the two. At the least, it is the closest to several other influential accounts of motivation and so may appear

more familiar—however, Dewey’s view of impulse must be carefully distinguished from these other accounts.

As mentioned before, impulse provides the motive force for action. It is thus closely linked with desire, which Dewey describes as “the forward urge of living creatures.” (*HN&C* 249) Beyond this fact, though, impulse and desire diverge, as Dewey goes on to describe the source of desire:

“When the push and drive of life meets no obstacle, there is nothing which we call desire. There is just life-activity. But obstructions present themselves, and activity is dispersed and divided. Desire is the outcome. It is activity surging forward to break through what dams it up.” (*HN&C* 249)

Rather than the motive force behind all action, or life-activity, desire only arises when action is obstructed. Impulse, on the other hand, is present regardless, or else there would be no life-activity to speak of; impulse drives life-activity, whereas desire only appears when some life-activity meets some obstacle. If I have an impulse that I satisfy by engaging in some particular action and I am able to engage in that action with no difficulty, no desire will arise. However, if some obstacle frustrates my ability to perform that action, desire for that which would free me from that obstacle and perform the action appears. To give a concrete example, an impulse may motivate me to eat, and so in order to satisfy this impulse and engage in this activity I reach for some food. As long as the food I seek is within my grasp there will be no desire—the food-seeking, grasping, and eating will simply be life-activity. But if food is not within my grasp and my activity is frustrated I will begin to desire the food I cannot reach as that which will allow me to engage in the activity my impulse drives me towards. The food is thus the object of my desire; Dewey describes the object, or “end-in-view” of desire as “that object which were it present would link

into an organized whole activities which are now partial and competing.” (*HN&C* 250) In my example above, food would, if present, allow the disrupted life-activity of eating to continue. Instead of the “partial and competing” activities of my futile attempts to grasp food that is out of my reach—which are simply a waste of energy—the presence of food would link up my efforts into the life-activity of eating.

By contrast, impulse is present as a motive force even in unobstructed activity. Indeed, without impulse to get activity going in the first place there would be no desire, as there would be no activity that might be obstructed. Impulse is also distinct from desire in that it does not take an object. Impulse on its own is just the bare drive of an organism’s biological processes; only with the introduction of habit is it consistently directed towards some object or aim, and this would then be the object or aim of the activity rather than the impulse on its own.

As well, while we are usually aware of our desires, we are not always aware of our impulses. Impulses may be so deeply engrained in us that we are largely unaware of them—in this feature impulse is similar to instinct. Impulse also shares with instinct its organic origins in the biological processes of the organism. However, while impulse may helpfully be interpreted as instinct, there are two features that many psychological theories attribute to instinct that Dewey explicitly rejects: namely, the notions that there is some instinct or set of instincts that is somehow fundamental and that there are separately definable, general instincts that are expressed by particular activities.

The first of these two notions is rejected in response to the psychological theories of those like Freud, Jung, and those who followed them, as well as things like Nietzsche’s attribution of all human action to the will to power. Sexual love, the will

to power, the will to dominate others, self-interest, and altruism are all rejected by Dewey as possible candidates for a fundamental instinct which drives all human action—indeed, Dewey rejects the very idea that a single instinct or even a set group of instincts could ever hold such authority. He even rejects the idea that there could be a definitive listing of instincts at all: while he allows that “the countless diversity of habits...springs from practically the same capital-stock of native instincts,” (*HN&C* 92) Dewey is also careful to note that “there are as many specific reactions to differing stimulating conditions as there is time for, and our lists [of primary instincts] are only classifications for a purpose.” (*HN&C* 132) Thus he rejects all psychological theories that attempt to explain human action in terms of some primary instinct or set of instincts as making the dual mistakes of rash over-simplification and taking distinctions and classifications as “marking things in themselves” rather than such classifications being simply acts that “like other intelligent acts are performed for a purpose, and the accomplishment of purpose is their only justification.” (*HN&C* 131) While Dewey’s theory allows that particular instincts may be more strongly expressed in certain individuals than others, that would be only a feature of those certain individuals. For human action in general there cannot be any primary instincts—such as sexual desire or self-interest—that form the fundamental driving force behind all action, and inasmuch as instinct and impulse can be taken to mean the same thing Dewey’s view of impulse follows the same principle.

Dewey rejects the second feature commonly attributed to instinct, namely that there are distinct, separate, and general instincts that are expressed by particular actions, for reasons similar to those for his rejection of the notion of primary instincts. It is commonly supposed that phenomena like sex, hunger, fear and so on are “lump

forces.” (*HN&C* 150) They are seen as separately existing instincts that find expression in particular actions; for instance, the instinct for sex is expressed in the search for a mate, hunger is expressed by searching for and consuming food, and fear is expressed by a “fight or flight” response. However, this view makes the same mistakes as the idea that there are primary instincts which I described above: it is guilty of making rash over-simplifications, ignoring the subtly different mixtures of instinct that might occur in specific instances of hunger, for example, differentiating hunger for a full meal from that for a mere snack, or hunger for a piece of fruit from a craving for sweets; it also makes the mistake of taking classifications to reveal real demarcations between things in themselves rather than being simple means of organization in order to simplify thought about objects. Thus not only does this view over-simplify the relationship between instincts and action, by taking all actions having to do with the search for and consumption of food to be associated with a single instinct called “hunger,” for example; this view also assumes that in labeling some instinct as an instance of “hunger,” we are marking that instinct’s real membership in some real, distinguishable class—or in other words, that the generalized instinct “hunger” really exists, and that this or that particular instinct is an instance of it. But instincts—as well as impulses, again insofar as the two coincide—are organic reactions of an organism to its environment, and since both the organism and the environment are “never twice alike” (*HN&C* 150-151) no particular instances of what we might call hunger, or fear, or desire for sex can ever be exactly the same. Calling both hunger for fruit and craving for sweets by the same name “hunger,” while useful for the purposes of organizing our thoughts about the subject, does not indicate that they are exactly the same. As Dewey says, using the example of fear:

“Fear of the dark is different from fear of publicity, fear of the dentist from fear of ghosts, fear of conspicuous success from fear of humiliation, fear of a bat from fear of a bear. Cowardice, embarrassment, caution and reverence may all be regarded as forms of fear. They all have certain physical organic acts in common—those of organic shrinkage, gestures of hesitation and retreat. But each is qualitatively unique. Each is what it is in virtue of its total interactions or correlations with other acts and with the environing medium, with consequences.” (*HN&C* 154-155)

So particular instances of what we call fear are not manifestations of some wider instinct, “fear,” that exists in our minds and assimilates all the various fears into a single mental force. Generalized names for instincts such as “fear,” “hunger,” and so on are simply the classifying names given to groups of individual, organic reactions to specific environmental conditions. These reactions, while they may share certain features in common, are still “qualitatively unique” in the ways in which they relate to other instincts and the environment.

So now Dewey’s view of impulse is in somewhat clearer view. For Dewey, impulse is the result of the organic, biological processes of an organism, such as metabolism, the workings of the nervous system, and so on. It provides the motive force to action, but is more primitive than desire: while desire only arises when action is somehow obstructed, impulse is required in order to have any action, or attempt at action, at all. It might be helpfully interpreted as something like instinct, although Dewey rejects the tendency of psychological theories towards treating some instincts as primary, as well as the idea that actions are expressions of generalized instincts like “fear” and “hunger” that exist as definable mental forces. Insofar as instinct and impulse coincide, the rejection of these two notions applies equally to impulse.

However, without some kind of guiding structure impulse is simply the bare biological drive of an organism—actions based on impulse alone are undirected and blind. Also, as mentioned above, the impulse of a newborn human is not enough to allow continued activity for more than a very short period of time; not only this, but even if a newborn were to somehow survive, without the formed habits of surrounding adults its actions would be meaningless, “mere sound and fury.” Habit, then, is what is needed to complete Dewey’s picture of human action.

First, it is important to point out that by “habit” Dewey means:

“that kind of human activity which is influenced by prior activity and in that sense acquired; which contains within itself a certain ordering or systematization of minor elements of action; which is projective, dynamic in quality, ready for overt manifestation; and which is operative in some subdued subordinate form even when not obviously dominating activity.” (*HN&C* 40-41)

This is perhaps not quite the usual use of the word, but as Dewey points out, “habit even in its ordinary usage comes nearer to denoting these facts than any other word.” (*HN&C* 41) Thus it is useful to think of habit first in terms of this ordinary usage: particular actions can be habits of mine, I can have good and bad habits, my habits continue to work in the background even when they are not directly operative (for instance, the bad habit of smoking is still a habit even when the smoker is not currently engaging in the activity) and so on. However, Dewey applies the word rather more widely than the ordinary usage; he applies it to any regular pattern of behaviour. For instance, I might have a particular fear response that I regularly exhibit. Dewey would call this a habit, even though in the ordinary usage of the word we most likely would not. However, given Dewey’s definition of what he means by habit, it is clear that this regular response of mine does count as one: it is influenced by prior activity, if only in that it has not yet been “trained” out of me by negative

consequences; it definitely contains an ordering or systematization of minor elements of my action—that is, the various minor actions that make up my response are always the same; it is projective and ready for overt manifestation, since it will overtly manifest given any suitably fearful stimulus; and it does operate in a subdued form even when not overtly manifesting—that is, even when I am not currently afraid, the fact that I react in this certain way when I am afraid is still operative, “behind the scenes” as it were. Of course, this is only a brief illustration of what is meant by habit. Further exploration of the elements of habit is required.

Saying that habit is influenced by prior activity and thus acquired is simply to say that it is learned—or at least not “un-learned”—behaviour. Habits are formed by an educative process that starts in infancy. An infant begins life with no formed habits and only bare impulse, so its activity is at first undirected. However, that infant does not—indeed, cannot—exist apart from some kind of physical and social environment, and this environment imposes positive and negative consequences for its actions upon the child. These consequences give the child reason to either repeat or avoid its actions, and so they are no longer undirected; in repeating actions that had positive consequences and avoiding actions that had negative consequences, the child has now begun to form directing habits regarding those actions, even though they were originally purely driven by impulse. This educative process usually works to reproduce roughly the same habits possessed by the surrounding adults in the child, since those adults are the greatest source of social consequences and are more likely to give preference to actions similar to their habits. This is especially true of moral codes and etiquette; habits that are possessed by adults and viewed as “polite” or “good” by the culture at large are more likely to be praised in children (i.e. have

positive consequences), while those viewed as “rude” or “bad” are more likely to be punished. This forms a cycle whereby the values of the culture in which they are raised are impressed upon children by the surrounding adults, reproducing the habits of the adults in the children who then grow up to be adults themselves and repeat the same process with their own children. This ensures that roughly the same culture and set of habits will then be passed down through generations of a society.

However, this educative process does not end with childhood. Although the habits formed in childhood often govern adult life, habits can also be changed through the same kind of educative process that originally formed them. Should a habit that served an individual well all through their life thus far suddenly result in negative consequences in a new situation, that habit will be put into question and may be changed to better suit this new situation. For instance, I might have developed the habit of simply eating whatever is immediately available when I am hungry rather than planning out a full, balanced meal. Suppose that this habit has served me reasonably well so far; it satisfies my hunger, thus accomplishing what it aims to do, and has not resulted in any particularly negative consequences. But now suppose that I begin to feel unwell—I become tired easily, I am sick more often, and so on—and I somehow manage to trace this back to my poor diet. This negative consequence to my habit will likely cause me to question the appropriateness of that habit, and possibly change it in order to avoid this negative consequence in the future, perhaps by making it my new habit to plan out at least one full meal every day. Thus an old habit can be changed even in adulthood. Granted, the older and more worn a habit is, the more difficult it will likely be to change—this is a widely recognized fact—but

the possibility for change instigated by this educative process still exists in even the oldest of habits.

The next feature of habit, as Dewey defines it, is that it contains a certain ordering of activities. That is, habit organizes activity into regular patterns—in my diet example above, my habit of eating whatever is immediately available organizes my activity, or at least my eating activity, into a regular pattern of intermittent and indiscriminate grazing rather than full meals at set times. Thus habit gives form to action provoked by impulse; while it is impulse that drives me to the activity of eating, to continue my example, it is habit that determines the specific form of that activity. It is habit that structures my eating into the form of intermittent grazing; should I change my habit, the new form it gives to my activity might be to regularly eat full, organized meals, but despite this new form the impulse would remain the same. It is possible for any number of activities to be the habitual outlet for one impulse (although perhaps not in a single individual)—an impulse that in one person leads to intermittent grazing on whatever food is available might lead to preparing and eating a full meal in another, or meditation meant to clear the mind of hunger in yet another. The impulse may be the same, or at least very similar, but the differing habits of the individuals in question channel that impulse into very different activities.

The third and fourth parts of Dewey's definition of habit are closely related, so I will deal with them together. According to Dewey, habits are both "ready for overt manifestation" and "operative in some subdued subordinate form even when not obviously dominating activity." What this amounts to is that habits do not just disappear when their respective stimuli are not present. Rather, they are still at work, in a "subdued subordinate form," until their stimuli appear again, at which point they

fully manifest and dominate activity. In the terms of my diet example, my habit of eating whatever is readily available whenever I am hungry still exists even at times when I am not hungry. It is a tendency or disposition that is always ready to manifest itself when the appropriate stimulus, in this case a hunger impulse, appears. Since it is always active in at least a subdued form, my habit can interact with my other habits as well, either reinforcing or conflicting with each other. This possibility of conflict between habits can contribute to the educative process through which I might be able to change my poor eating habit; the most likely candidate for the other side in this conflict of habits would be a habit I might have of trying to keep myself as healthy as possible, which even though not necessarily always dominating my activity would always at least be operating in the background. Until the discovery that my eating habits are the cause of my recent illness, these two habits would not have been in conflict, but now that I see my eating habits as being detrimental to my health they are quite clearly in conflict with my habit of keeping myself healthy. This kind of conflict would not be possible if habits simply disappeared when they were not currently in action.

Habit, then, is that which determines the form of the action which is motivated by impulse. It contains the organizing principle that structures activity, derived and learned from past activity by an educative process involving the positive and negative consequences of that past activity. It is also always active, even if only in a subordinate position, both ready to fully manifest once the appropriate stimulus is encountered and able to interact with other habits that may or may not be fully manifested themselves. This contributes to the educative process as it continues past childhood, when an individual is in possession of fully formed habits; that is, this

constant activity, even subordinately, allows habits to interact and come into conflict with each other, adding this conflict between habits to the negative consequences that might prompt a revision of habits.

Human action, on Dewey's view, is the result of a combination of impulse and habit. However, both impulse and habit are derived from processes: impulse comes from the organic, biological processes of the organism and habit is acquired through an educative process. Therefore, actions are the results of processes for Dewey. They are also the components of further processes, as they may form part of an educative process leading to the formation of a new habit or the alteration of an old one, and they may also change the environment in a way that affects further actions. To give a concrete example, if I am walking down a road and come to a fork in the path, I can either go left or right. The action I take is the result of impulse, which is derived from biological processes, and habit, which is acquired through a long educative process. This educative process includes all my previous actions—thus my current action draws its form and meaning from habit that is informed by my entire history. And the action I take now of going either left or right will of course affect my actions in the future, either through the small addition it makes to the educative process that forms and revises my habits or by the simple fact that going down one path or the other will lead me to different situations and therefore different possibilities for future action. My history affects my current choice in this way as well: the fact that I am presented with these particular possibilities for action right now is dependent upon my previous actions. If I had not chosen to go down the right path at the last fork in the road, I would not have been presented with the exact situation I face right now. My history affects my current activity both through the

habits I have formed and through the exact situation I am now in due to that history, and my current activity affects all my future activities in the same ways. It is all part of the same process.

It is important to note that Dewey is not interested in the question of whether or not our histories *determine* our current activities. The important thing for Dewey is that human action can only be meaningful when our histories are accounted for; that is, when we consider action within the context of an ongoing process. Considered in abstraction from facts about our histories, the process involved in forming habits, and the biological processes that generate impulse, actions become arbitrary and meaningless. Suppose that I go left at the fork in the road. If this action is looked at without taking account of any of my history or my current action's place in a larger process, it loses all meaning. Perhaps I am on my way to a particular place which I can only get to by taking the left path. Perhaps I have heard that thieves await me on the right path. Perhaps I come from a culture in which going right at a fork in the road is seen as unlucky. Perhaps it is simply my habit to choose the left path when faced with a fork in the road. Any of these possibilities could give meaning to my action as heading along my planned route, staying away from thieves on the road, avoiding bad luck, or manifesting a habit. However, these details all involve some aspect of my history and consideration of my present action as part of a process; that I am on a journey of which this action is a part, that I am the kind of person who wishes to avoid thieves or am engaged in some activity that makes such avoidance preferred, and so on for all the other examples. If my action is considered apart from these historical and process-oriented details it loses any meaning that they might give and I am left with the seemingly arbitrary action of going left instead of right at the

fork in the road. Whether or not these historical and process-oriented details determine my action in some way is beside the point; what matters for Dewey is that my action cannot be seen as meaningful in abstraction from such details.

The mention of going either left or right at a fork in the road brings us nicely to the topic of deliberation—that is, of deciding upon what action to take. Dewey’s account of deliberation is somewhat unusual; while deliberation is primarily conscious, consciousness is not a component of the impulse-habit status quo of human action. In terms of the fork in the road example, if we are in the habit of walking along the road we do not ever think about what we are doing while things continue normally. However, this does not mean that Dewey conceives of human beings as thoughtless automatons simply going about our programmed business. He says that habits can be altered, and stresses the importance of intelligence in properly directing such alterations, as well as the initial formation of habits. The way in for consciousness in Dewey’s account is when the impulse-habit status quo is disrupted—in other words, when things stop continuing normally and some obstruction presents itself. In the road example, consciousness comes into play when we come across the fork in the road or some other obstacle that prevents us from simply walking as we were before. The usual interplay of impulse and habit becomes frustrated, and we must deliberate about how to resolve this frustration and continue our activity. Consciousness, rather than some pre-existing faculty in the mind of the organism, is simply the state of the organism when its continued activity is complicated in some way, and deliberation is the activity in which the organism engages in order to resolve this complication.

Consciousness is thus rather like Dewey's account of desire: just as desire only arises when the activity of the organism is obstructed, consciousness only arises when some problem faces the usual synthesis of activity out of impulse and habit. However, while desire arises from activity that is directly frustrated, consciousness arises from complications within the very process of synthesizing activity itself. These complications might take the form of some competing impulse interfering with other impulses, conflicts between habits, or environmental obstructions. They make it difficult to straightforwardly continue prior activity; it could be as simple as a fork in the road forcing me to decide which path I will take in order to continue walking, but until this complication is resolved I cannot continue my activity.

For its part, deliberation is the activity the organism carries out in order to resolve the complication that instigated the conscious state, as I mentioned above. More specifically, it is an experimental process in which old habits and impulses are examined and revised in order to find a solution to any conflict between habits or competing impulses, or to find some way to overcome any environmental obstructions there might be. Deliberation also often includes inquiry both into other options for action and in order to gain a deeper understanding of the situation—such inquiry is explicitly experimental, necessarily involving a kind of “try it and see” approach, even if only imaginatively (as in a thought experiment). Inquiry is most effective when intelligently directed, as intelligent, systematic inquiry is more likely to lead to success than simply hoping to come upon the right answer by chance—at the least it is more reliable. This is especially true in cases where the comfortable, well-worn familiarities of old habits must be abandoned in favour of new options in order to solve a problem, where inquiry that is not intelligently directed can be

appropriately compared to stumbling about in the dark. In this way inquiry may result in new possibilities for action being brought to the attention of the deliberator, introducing a certain amount of novelty to the deliberative process. Deliberation is thus a process of balancing off impulse and habit, making concessions, trying different possibilities, and investigating the situation, and may be formative of new habits. However, although this process is creative, it does not completely ignore old habits; the experimental process of deliberation is undertaken in light of previously existing habit, even when it is habit that the process is examining and potentially revising. In the fork in the road example, upon encountering the fork in the road I am presented with some complication of my continued action—it might be interpreted as an environmental obstruction, competing impulses (“go left” vs. “go right”), or perhaps a mixture of the two. This complication arouses my consciousness, and I then set about deliberating about which path I should take. Taking my formed habit into account, even if my action ends up altering some habit of mine, I determine a course of action that resolves the complication—I choose to take the left path, for instance. I am then able to straightforwardly continue my previous action (walking along the road).

To present a case in which some new habit is formed, I will return to my earlier example of my poor diet. I first realize that there is some problem with my activities when I begin feeling unwell. I become conscious of the problematic situation, and I examine my activities, habits, and impulses to try to discover the problem. Perhaps through finding some information on the connection between health and diet, or perhaps simply through introspection, I determine that my poor diet is the cause of my health problems. Supposing that I have the habit of trying to

keep myself in the best health I can, it is clear that this habit conflicts with my habit of simply eating whatever is immediately available whenever I am hungry, as I now realize that this habit of eating is detrimental to my health. This might also be interpreted as simply wanting to avoid the newly discovered negative consequences of my habit. In any case, I then begin deliberating as to how best to resolve this problem, a process which may result in me changing my eating habits for the better. By changing my diet and continuing my activities in accordance with that change, I will have formed a new habit, or at least revised an old one. Of course, I may fail to stick to my new diet, in which case I will simply be continuing with the old habit; it is also possible that the solution to the problem that my deliberation arrives at is to change the kinds of food that I have readily available rather than changing my eating habits directly. In either of these cases I will not have formed a new habit, although the problem may still be more or less resolved.

So on Dewey's account of human action, consciousness and deliberation only come into play when some problem arises in the usual process of synthesizing action from impulse and habit. Consciousness is the state the organism enters when it feels or otherwise encounters this problem, not a pre-existing faculty of the mind, and deliberation is the experimental activity by which an organism in a conscious state arrives at a solution to the problem it is faced with. This solution might be to form a new habit or revise an old one, to balance off competing impulses in some way, or to engage in some novel action that will overcome an environmental obstruction and that may or may not result in the formation of a new habit. The solution that deliberation arrives at is also informed by the pre-existing habits of the individual,

and does not take place in abstraction from them, even when one or more of those habits might be changed.

Discussion of consciousness, deliberation, and the potential for changing habits brings us nicely to the topic of freedom. If negative freedom, or freedom from restriction, is what is desired for action, then Dewey's account poses a problem; namely, that previously acquired habits exert a great deal of influence on action. This influence might be seen as to some extent determining action, and this determination is a restriction, insofar as it closes off certain alternative courses of action. For example, my previously acquired eating habits determine the actions I take to address hunger to some extent, for instance by directing me to eat whatever is immediately available. This habit thus restricts my actions by effectively closing off many of my alternatives, such as preparing a full meal or going to a restaurant—though they are viable options for dealing with hunger, I do not do these things because they are not my habit. Of course, habits can be changed by both the educative process and conscious deliberation. However, as I noted in my discussion of conscious deliberation, we cannot be free from the restrictions of habit even as we change our habits, since our deliberation will always be informed by our habits and any changes we make to them will always therefore be made in accordance with our complex of habits as a whole. If I change my eating habits, that change will be made in accordance with some other of my habits, such as my habit of endeavouring to keep myself healthy. Even if I am successful in this change of my habit, I will not therefore be free from the restriction of habit in general.

Furthermore, I likely cannot be free even from the particular habit I am changing; although I may be holding it up in for review in deliberation, it is still a part

of my complex of habits and so will still be operative. This is in line with Dewey's given definition of habit, but also addresses the possibility of changing all of one's habits at once (remote though it may be). If I am freed from the restriction a habit imposes on my actions while I am deliberating about changing that habit, then presumably if I were to deliberate about changing all of my habits I could then be free from the restriction of habit in general, at least for the period of my deliberation. However, deliberation is an activity, and in order to be meaningful an activity requires the direction of habit. Thus, in order to be recognizable as the activity of deliberation at all, at least some habit needs to apply to that deliberation. Even deliberating about our entire complex of habits cannot free us from the restrictions they impose on our action. As an aside, deliberating about our entire complex of habits in freedom from those same habits might be close to what Nietzsche meant by "re-evaluating values"—if this is true, then on Dewey's view such radical re-evaluation would be impossible.

Nor can we be free from the influence of impulse on our action. While it may be true that the physiological origins of impulses mean that they subject me to certain restrictions inherent in the biological facts about my body, such as my inability to digest rock, recall that in Dewey's account impulse provides the motive force for action. The simple fact that my body neither requires nor is capable of ingesting rock for sustenance does mean that there will never be among my impulses one that urges me to eat a stone (except perhaps in a pathological case), but to say that freedom from impulse would make me free to eat all the stones I wanted would be incorrect, since the elimination of impulse, the motive force for action, would result in no action whatsoever. Lacking the drive to act at all is far more restricting than lacking the drive to some particular action, like eating a stone, so eliminating impulse would not

result in greater freedom. In order for there to be action at all, let alone free action, impulse must be present in Dewey's view, even with all the restrictions it may bring with it.

So we cannot get absolute freedom from restriction out of Dewey's account; thus we cannot get what many would call true free will. However, it is important to note that Dewey classifies "freedom *from*" (i.e. freedom from restriction or negative freedom) as a "heritage of the metaphysical doctrine of free-will," (*HN&C* 305) and he has no interest in addressing such metaphysical questions. He repeatedly dismisses the notion of metaphysical free will, making the point that "what men have esteemed and fought for in the name of liberty is varied and complex—but certainly it has never been a metaphysical freedom of will," (*HN&C* 303) as well as saying that "insistence upon a metaphysical freedom of will is generally at its most strident pitch with those who despise knowledge of matters-of-fact." (*HN&C* 305)

As well as the importance of metaphysical free will, Dewey also dismisses the clear-cut opposition between freedom and restriction (or determination, or organization, insofar as these impose restrictions) set up by the notion of negative freedom:

"I have no desire to add another to the cheap and easy solutions which exist of the seeming conflict between freedom and organization. It is reasonably obvious that organization may become a hindrance to freedom; it does not take us far to say that the trouble lies not in organization but in over-organization. At the same time, it must be admitted that there is no effective or objective freedom without organization." (*HN&C* 306)

He does admit that "organization" is in some sense opposed to freedom, in agreement with the notion of negative freedom, but Dewey also stresses that organization is required in order for freedom to be possible. Without the organizing influences of

impulse and habit on action there would be no freedom, in spite of the restrictions that impulse and habit bring with them, because it would be impossible to act in any meaningful way at all. While freedom does require a negative component in order to counteract the hindering effects of organization upon action, it also requires some component that allows action to occur in the first place. This latter component is often called positive freedom or “freedom *to*.” Dewey sometimes refers to it as “efficiency in execution,” and according to him it can only be provided by organization. The organizing influences of impulse and habit, in providing both the drive and form for action, are what allow activity to occur—they constitute “freedom *to*.” Naturally, in the case of a poorly formed habit that does not give the intended result, this “freedom *to*” can be frustrated. However, such cases can be corrected by appropriate use of knowledge and deliberation to reform habit in order to attain the desired result and so restore the positive freedom afforded by the habit.

Dewey’s view of freedom can thus be seen as a mixture of positive and negative freedom: it consists of both “efficiency in execution” or “freedom *to*” and freedom from restrictions, perhaps not in equal measure but certainly in balance with each other. In order to get true freedom, in Dewey’s view, both of these aspects are required—neither one by itself results in freedom. In fact, it might be said that neither can even exist without the other, so the distinction between positive and negative freedom might even be seen to disappear. I cannot be said to have the executive efficiency to perform some particular action if I am not also free from restrictions that might prevent me from doing so. Neither can I be said to be free of restrictions if I lack the executive efficiency to perform an action. The presence of restrictions constitutes a lack of executive efficiency, and vice versa. I am equally

restricted from crossing the street whether I am obstructed by some physical barricade or am simply unable to walk. As well, the executive efficiency afforded by a habit might eventually become a restriction upon my action simply because that habit orders my actions to such an extent that I become unable to behave any differently without the intervention of deliberation. In Dewey's words: "Habits become negative limits because they are first positive agencies." (*HN&C* 175) In these ways the positive and negative aspects of freedom are intimately connected in Dewey's view.

As the previous discussion of Dewey's view of freedom indicates, Dewey is uninterested in metaphysical questions, at least in his account of human action presented in *Human Nature and Conduct*. Instead of speculating as to the fundamental nature of the world and action, Dewey is primarily interested in concrete matters of fact. He is interested in specifically human actions that take place in specifically human social settings rather than in action in general; while the notion of impulse and habit might be generalized to creatures aside from humans, Dewey does not engage in any lengthy discussion of such a generalization, only briefly mentioning that a similar interplay of impulse and habit may apply to animals with appropriate alterations to the complexity of habits. Throughout *Human Nature and Conduct* Dewey remains resolutely focussed on precisely that—his emphasis is always on the concrete and human rather than the metaphysical. This focus on the concrete shows through in Dewey's account of process as well: the origins of impulse and habit are in processes; the interplay of impulse and habit is a process; activity is a process; the human self is not a ready-made thing but in a constant process of change; and so on. But although he describes all these things as processes, Dewey does not address

questions like “What does it mean for something to be a process?” and “How do processes occur?” These questions are metaphysical in nature, and so are left to the side in *Human Nature and Conduct*. To deal with questions like these, I will now turn to a philosopher who does focus on the metaphysical questions regarding processes: A. N. Whitehead, in his *Process and Reality*.

Chapter III: Whitehead

I will begin my discussion of Whitehead in the same way I began my discussion of Dewey: by looking at his definition of process. As with Dewey, Whitehead does not give an explicit definition of process—rather, he focuses on the task of establishing processes, as opposed to substances and properties, as metaphysically fundamental. This means that while he goes to great lengths to describe the constituents of his process metaphysics and their interactions, he leaves process itself without an explicit definition. However, again like Dewey, there seem to be no contradictions between Whitehead’s views and a general, dictionary definition of process like the one to be found in the Oxford English Dictionary. The novelty in Whitehead’s position is in how he takes processes to be metaphysically fundamental, not in any requirement of a different definition of process.

Whitehead’s main goal in *Process and Reality* is to introduce what he calls the philosophy of organism as an overarching metaphysical doctrine. One of the most important aspects of this doctrine, and certainly the most relevant to the current discussion, is that it rejects the usual ‘subject-predicate’ or ‘substance-quality’ ontology in favour of viewing processes as the fundamental constituents of reality. In Whitehead’s words:

“[the philosophy of organism] differs by abandonment of the subject-predicate forms of thought, so far as concerns the presupposition that this form is a direct embodiment of the most ultimate characterization of fact. The result is that the ‘substance-quality’ concept is avoided; and that morphological description is replaced by description of dynamic process.” (*Process and Reality* 7)

Whitehead calls these fundamental processes “actual entities,” and he speaks of them in much the same way a quantum physicist might speak of quanta (or “packets”) of energy. All actual entities are connected by a web of “prehensions”. Whitehead uses the term “prehensions” to cover virtually all kinds of effects that actual entities might have upon one another: the force of gravity of one actual entity, A, acting on another, B, is one kind of prehension that B has of A; even something as simple as one entity bumping against another would be a prehension. However, it is important to note that prehensions only ever work in one direction—thus, in the case of a force of gravity between two entities, A and B, there would actually be two prehensions: A’s prehension of B and B’s prehension of A. In general, any way in which one actual entity affects another is a prehension of the one by the other; it is a way in which the first makes its presence felt to the second. This felt presence forms part of the past of the entity having the prehension—an entity can onlyprehend its past, as its contemporaries and future have not yet had time to have an effect upon it. Similarly, if one entity is prehendeditself by other entities, those other entities are in the first entity’s future—two entities are only contemporary if neither has any prehension of the other.

There can even be indirect prehensions, where one actual entity “passes on” its prehension of another entity to a third. For example, if A, B, and C are actual entities, and B has prehensions of A and C has prehensions of B, it is likely that at least one of B’s prehensions of A (i.e. one of the effects that A has on B) will be passed on in some way in which B affects C. Put another way, the way that A affects B will

influence the way B affects C, and thus A will have an indirect influence on C. In this case, C has an indirect prehension of A. With this structure in place, it is easy to see how even the most remote actual entities are connected to all other actual entities by a web of prehensions, both direct and indirect: to be connected to one actual entity is to be at least indirectly connected to them all.

In fact, it is this web of connections that largely dictates what an actual entity is and, since it is a process, will become. Whitehead says:

“an actual entity has a threefold character: (i) it has the character ‘given’ for it by the past; (ii) it has the subjective character aimed at in its process of concrescence; (iii) it has the superjective character, which is the pragmatic value of its specific satisfaction qualifying the transcendent creativity.” (*P&R* 87)

All three of these aspects of actual entities are related to their connections to all other actual entities through prehensions. First, the past “given” to an actual entity is available only through the information it gains from its prehensions. Second, the “process of concrescence,” the process that essentially constitutes the actual entity’s existence, is the process by which all the prehensions the entity has of others are unified and reconciled; it is this unification that Whitehead means when he speaks of “concrescence”. Finally, the “superjective character” of the actual entity—its “pragmatic value”—is the effect that it has on the other actual entities simply in virtue of becoming whatever it is that it eventually becomes (its “satisfaction”). To give an example, consider a situation in which an actual entity feels two equal but opposite forces acting on it. What is “given” to the entity is the fact of the forces themselves, which are prehensions of other actual entities (or groups of them)—this is the actual entity’s “past character”. The “process of concrescence” would be the unification and reconciliation of these two prehensions, which in this case can be suitably represented

by simple vector addition of forces: a force in one direction plus an equal force in the opposite direction equals zero, or rather no net force. Thus the competing prehensions that the actual entity has of its surroundings in the form of these two forces are unified into a single net effect. The “satisfaction” of the entity in this simple case is to simply stay exactly in place without moving at all, the forces acting on it effectively cancelling each other out, and its “superjective character” is any further effects that the actual entity might have on its surroundings—that is, the prehensions that other actual entities might have of it. For instance, by not moving at all the actual entity might block the path of another actual entity, or remain in range of it to affect it in some other way. In this way an actual entity is both affected by and affects the actual entities around it, and indeed *all* actual entities, through this web of prehensions.

Aside from the “threefold character” of actual entities, but closely related to it, Whitehead also names four stages that constitute actual entities: datum, process, satisfaction, and decision. (*P&R* 149-150) The “datum” is the information received by the entity—its “past character,” in terms of the three characters mentioned above. The “process” is the concrescence of the entity’s prehensions, again as described above. However, while in Whitehead’s scheme of the three characters of actual entities the satisfaction of an entity is not treated separately from its process of concrescence, in this scheme of the four constitutive stages of an entity “process” and “satisfaction” are treated as two different stages. The “satisfaction” of the actual entity—in other words, the attainment of the “subjective character aimed at in its process of concrescence” (*P&R* 87)—is a stage separate from that process of concrescence itself. Both “process” and “satisfaction” are related to an actual entity’s subjective character, just as the “datum” stage is related to its past character. Finally,

the “decision” relates to an actual entity’s “superjective” character—what it means for the larger picture, or how it affects other actual entities.

Note that the “datum” and “decision” stages are closely linked, in that the decision of one actual entity will likely form part of the datum of at least one other. Whitehead even goes so far as to call them the “two decisions”: the datum “is ‘decided’ by the settled world,” and “is the ‘decision received,’” while the decision “is the ‘decision transmitted.’” (*P&R* 150) This ensures a high degree of continuity between successive actual entities, as no matter what changes are brought about during the “process” stage an entity will always take the “decisions” of the entities before it as its starting point while its own “decision” will contribute to the starting points of the entities that follow.

One possible point of confusion is whether actual entities or processes themselves are metaphysically fundamental—that is, is it the case that actual entities simply are processes, or are they only based on and constituted by processes? Whitehead himself seems to be rather ambiguous on this point: while he often refers to actual entities as simply being processes and not based on them, his four constituent stages of actual entities seem to separate process out as a separate stage in the constitution of the entity. Furthermore, these four stages could be interpreted as stages in a process, thus making a somehow more basic process (the “process” stage) a component of the larger process. This threatens an infinite regress, where every process will have some more basic process as a component, which will in turn have an even more basic process as a component, and so on. Such a regress may not be vicious, however—at the very least, process will be metaphysically fundamental, as Whitehead is attempting to establish, even with such a regress, as each more basic,

fundamental level will just be another process. Another possibility is that the name Whitehead has given to the “process” stage of an actual entity is simply misleading: only at the level of actual entities and above do we get processes proper, while the “process” stage of an actual entity is simply the active stage of the process that makes up the entity and not a full process in itself. On this view, an actual entity simply is its process of concrescence, with the “process” stage of the entity being the phase of that process of concrescence in which the actual unification and reconciliation of the entity’s prehensions occurs—not a process in and of itself, but only a step in a process, albeit an active step. There are problems with this solution as well, though, as it might not make much sense to say that something is active without being a process. However, I think it is safe to leave these problems aside. Although it is important to note the ambiguity in what Whitehead says between taking actual entities to simply be their processes of concrescence and taking them to be based on such processes, choosing one of these options over the other does not seem necessary to the present discussion. Whether or not there are further, even more basic and fundamental processes that underlie the processes of concrescence that make up actual entities, while metaphysically interesting, does not seem to be terribly relevant to questions of human action, which will all be taking place several levels above actual entities. Neither does this question seem to be relevant to matters of process as it applies to such higher levels of organization, being specific to the level of actual entities and below (if such more fundamental levels exist at all). This being the case, I will continue on under the assumption that actual entities simply are their processes of concrescence—that is, that the two are effectively identical—and also that Whitehead’s four stages that constitute actual entities do apply to those actual entities

and thus the processes of concrescence with which they are identical as well, without considering the possibility of further, even more fundamental processes.

All this is, of course, a somewhat simplified version of Whitehead's metaphysical doctrine. He goes into far greater detail about the various aspects of actual entities and prehensions; he also includes in his ontology a class of existents that he calls "eternal objects," which function somewhat like Platonic forms, and of which actual entities also have prehensions that their process of concrescence must take into account, and which are involved in the transmission of information from actual entities to their successors. However, the base constituents of at least physical reality—and certainly human beings—are still actual entities, and since it is in human beings and their actions that we are ultimately interested here I think it is prudent to focus exclusively on actual entities. For the purposes of the present discussion, eternal objects are just another class of things that contribute to the characters of actual entities, like an appendix to what I have already said—the basic origin and nature of actual entities that I have established above still stands.

However, as I briefly mentioned earlier, Whitehead speaks of actual entities as a physicist might speak of quanta of energy. They are the fundamental constituents of reality in his metaphysics, and while he says nothing definite about their exact size—and, indeed, it may not even make sense to speak of their size—it is clear that they exist at the microcosmic level, much like a sub-atomic particle would. They are not a part of our everyday experience, just as electrons are not; the macrocosmic objects we see and interact with on a daily basis are huge conglomerations of actual entities in much the same way that they are conglomerations of elementary particles. In order to move from considering actual entities to considering everyday objects, including the

makeup and activities of the human body, the various kinds of conglomerations of actual entities must be explored.

The simplest type of these conglomerations is what Whitehead refers to as a nexus. A nexus is nothing more than a collection of actual entities that are connected through prehensions. Every member of a nexus is connected to all the other members via at least indirect prehensions—by this definition, the entire universe would count as a single nexus for Whitehead, indicating how very general the idea of a nexus is. The next type of conglomeration of actual entities is a special case of a nexus which Whitehead refers to as a society. While Whitehead uses the word to refer to more than just human society, what differentiates a society from a mere nexus is something that is very nicely displayed by human society: that is, a society possesses a “social order” by which the members of that society enforce their similarity on each other, thus perpetuating the society even as individual members drop out or join anew. This social order will even maintain the society across successive “generations” of actual entities. In much the same way that human parents raise their children to be members of the human society to which they belong, members of a society, through social order, will ensure that actual entities that join the society will possess whichever characteristic (or set of characteristics) that defines the society. In Whitehead’s words: “The members of the society are alike because, by reason of their common character, they impose on other members of the society the conditions which lead to that likeness.” (*P&R* 89) However, societies cannot be considered in isolation; surrounding actual entities, i.e. the environment, will contribute to the character of the members of a society as well. In a viable society this contribution will be in line with the social order (or vice versa), but it still plays an important role in that it at least

partially dictates what characteristics the social order will favour. Whitehead refers to this as the “social background” (*P&R* 90).

The last two major types of conglomerations of actual entities are special cases of societies. First, there are societies with “personal” or “serial” order, which are societies that are extended only through time—that is, they are societies that only have one member at a time, although those individual members do still impose on each other the similarity that defines their society. Each successive member of a society with personal order inherits a great deal from its predecessor. Finally, on the opposite end of the spectrum of complexity, there are structured societies, which are highly complex societies of other subordinate societies, each of which play a part in the larger structured society.

Societies, including even the most complex of structured societies, can be seen as undergoing processes in some of the same ways as actual entities. A society will always be informed to some degree by its environment (its social background), and it will also affect its environment in turn, as well as other societies. Most societies will also be in a state of constant flux, as old members leave and new members join the society for whatever reasons, such as when old cells die and make way for new ones in an animal’s body. For this reason, as well as the fact that they are ultimately made up of process-based actual entities, societies are also best understood in terms of processes rather than the “morphological descriptions” of a subject-predicate ontology. That is to say, societies, like actual entities, are best understood not as “ready-made” objects that have properties, but rather as dynamic processes, continuously changing and becoming something new. However, the similarity between the processes of societies and those of actual entities should not be taken too far—they are similar in

that both are processes, but the process by which an actual entity determines its final character possesses elements that do not appear in social processes. Most important of these would be the subjective aims of the actual entity and the satisfaction of the process. It is not clear that societies have subjective aims other than the separate aims of their member entities, and neither is it clear that societies reach a satisfaction in Whitehead's sense. These points are debatable, of course, but Whitehead does not accept that the processes of societies can exhibit these elements—he may accept that there are analogues between social processes and actual entities, but they are not metaphysically the same.

So this should give us some understanding of Whitehead's process-based metaphysical doctrine, but as I briefly mentioned above the real point of this investigation is to see how his philosophy of organism bears upon human beings and human action. The human body is, perhaps, the easiest place to start: like the other macrocosmic objects we experience in everyday life, the human body is a society. Specifically, it is a structured society of a particularly high order—the human body is a society of organs, which are societies of tissues, which are societies of cells, and so on down the line until we reach actual entities, possibly at the sub-atomic level although Whitehead leaves this question open. Moving on to the human mind, it is tempting to treat it in a similar way, as a society (albeit a mental one rather than a physical one) of various different drives, instincts, and other psychological factors, and this is correct for at least some of the workings of the mind. Whitehead also speaks of the mental aspect of actual entities being just as fundamental as their physical aspect: “Each actuality is essentially bipolar, physical and mental,” (*P&R* 108). Whitehead even goes so far as to compare the connection between the physical

and mental to that between matter and energy as revealed by the theory of relativity in physics—that is, that the distinction between the two is inconsequential in terms of the theory, if not necessarily in practice (*P&R* 109). Thus it is tempting to see the mind as simply the mental aspect of the concrescence of the physical human body. However, this would not be correct—the mental pole of an actual entity is that which includes its subjective aims and prehensions of eternal objects (as opposed to prehensions of other physical actual entities), and does not apply to societies such as the human body. Instead, Whitehead accounts for the human mind by positing that at any given moment there is a “presiding personality” that calls the shots, so to speak, for the rest of the body. While this presiding personality does take the other parts of the mind into account, being “the final node, or intersection, of a complex structure of many enduring objects,” (*P&R* 109) Whitehead is also careful to note that it is a society with personal order, and therefore would only have one member at any one time. He says: “...that complex character in virtue of which a man is considered to be the same enduring person from birth to death. ...Such a society is said to possess ‘personal order.’” (*P&R* 90) Although there is certainly a “background” at work in the mind that could be seen as a wider society of mental occasions or entities, the mind, or at least its “presiding personality” is still somehow singular. To further compound confusion, Whitehead also says that this presiding personality is not bound to any of the actual entities that make up the body over any other, or at least not for very long: “This route of presiding occasions probably wanders from part to part of the brain, dissociated from the physical material atoms.” (*P&R* 109) He also says that presiding personality is tenuous, that “there are limits to such unified control,” (*P&R* 107) and

that “central personal dominance is only partial, and in pathological cases is apt to vanish.” (*P&R* 109)

So the picture of the mind that we get from Whitehead is something rather like this: while there is a wider society of mental occasions to form a mental background, the most important part of the mind is a “presiding personality” or “presiding occasion” which takes the other “occasions” into account but still represents a unified control. The presiding personality is a society with personal order. Furthermore, it is likely unconnected to any particular physical part of the body, and the unified control it affords is only partial at best. Obviously, this understanding of the mind has many lacunas in it—it lacks explanations of what makes an “occasion” the “presiding occasion,” how the presiding personality acts as the “node” or “intersection” of the entities that make up the body, and many other questions. However, I think that such questions, while certainly interesting, are relatively unimportant to the task at hand. Rather, it seems to me that we should put our focus squarely on the notion that this presiding personality is a society possessed of a personal order. The fact that successive presiding personalities are in society with one another means that there is a high degree of continuity between them—even more than would be explained by the usual connections between actual entities. Aside from the continuity that results from the effects of earlier actual entities providing the starting points of later ones, since the presiding personalities of an individual form a society there is also a stronger form of continuity between them in the form of the likeness enforced by the other members of the society—the inheritance that each successive presiding occasion takes from its predecessor. While identity, in the strict logical sense, may be too strong a term to describe this likeness, there is some “sameness” between successive presiding

personalities nevertheless. In important ways, defined by the social order that exists between them, these successive personalities are the same. Thus some degree of identity is maintained even while the presiding personality “wanders from part to part of the brain,” the centre of control passing from one “occasion” to another. The social order of the presiding personality ensures that the current presiding occasion will always be importantly similar to past presiding occasions.

Of course, this is not to say that the “background” of the mind is unimportant. Recall that the presiding personality is referred to by Whitehead as a “node” or “intersection” of the entities that make up the body: the presiding personality will always take into account the relevant occasions of the brain or body at large. By affecting these background occasions it is possible to affect the presiding personality. It is the progress of the background that comes to the fore in the developmental account of the mind that Whitehead gives in his essays on education. He says that “the interior spiritual life of man is a web of many strands.” (*The Aims of Education* 27) At greater length: “...the development of mentality exhibits itself as a rhythm involving an interweaving of cycles, the whole process being dominated by a greater cycle of the same general character as its minor eddies.” (*AoE* 27) However, although the current presiding occasion is informed by the occasions that make up the background of the mind, it is still dominant, and still coheres with preceding and succeeding presiding occasions to make up the society of the presiding personality. This binds together the “web of many strands” so that—barring pathological cases where the unified control of the presiding personality fails—it never disintegrates into a mere collection of its components.

It is this that allows us to say that a human being is metaphysically the same over time in Whitehead's account. Despite the fact that the human body is a collection of many physical entities and the human mind is made up of many mental "strands," and despite the physical and mental changes that occur during the course of a lifetime, a person is still unified both by the society of his or her parts on the physical level and by the central control of the presiding personality, which is itself a society with personal order, on the mental level. This unification is the result of the metaphysical process of concrescence for Whitehead, so treating an individual as being the same through time is not simply an approximation used in practice as a kind of shorthand for a being that is metaphysically only a collection of parts. The unification of actual entities into societies is metaphysical in nature, so although there is nothing existing beyond the entities themselves in Whitehead's doctrine the treatment of societies as enduring despite changes to their membership is metaphysically justified, even in the extreme case of societies with personal order. An enduring individual is so metaphysically, not just for practical purposes, and this applies to human beings as well.

This basic view of Whitehead's process-based metaphysics, like Dewey's account of human action, seems to pose a problem for freedom, or at least the negative variety of freedom. That is, since every actual entity takes prehensions of settled facts about its surroundings as its starting point, or datum, an entity's environment will always restrict what it can be—actual entities can never be totally free from restriction.

Whitehead puts it in this way:

"The character of an actual entity is finally governed by its datum; whatever be the freedom of feeling arising in the concrescence, there can be no transgression of the limitations of capacity inherent in the datum. The datum both limits and supplies." (*P&R* 110)

However, as the last line of this quotation suggests, the datum cannot be done away with. While an actual entity's datum limits what it can be, it also supplies the entity with the very means to be what it can be. An actual entity is largely made up of a process of concrescence which unifies and reconciles its prehensions of other entities until it reaches some satisfaction, and it is the datum that supplies these prehensions. Without its datum an actual entity would be without prehensions of its surroundings. The process of concrescence that constitutes that entity would therefore never get started, and the actual entity would never exist. Disconnecting an actual entity from its datum would not enable the entity to be free by abolishing that which limits it; rather, it would abolish the very existence of that actual entity. An actual entity's datum may limit it, but this limitation is necessary if the entity is to exist at all.

Thus with Whitehead we find ourselves in a similar situation to that of Dewey with regards to freedom: that which allows actual entities to exist also limits what they can be, just as that which allows meaningful action for Dewey also poses limits upon activity. However, in the case of Whitehead the problem is metaphysical in nature, being about freedom and limitation as they apply to fundamental existents rather than to human action, and the way he addresses the situation is similarly metaphysical. Rather than appealing to some positive variety of freedom afforded by organization as Dewey does, Whitehead asserts that freedom is inherent in the universe:

“It is to be noted that every actual entity...is something individual for its own sake; and thereby transcends the rest of actuality. And also it is to be noted that every actual entity...is a creature transcended by the creativity which it qualifies. A temporal occasion in respect to the second element of its character... [satisfies] Spinoza's definition of substance, that it is *causa sui*. ...The freedom inherent in the universe is constituted by this element of self-causation.” (P&R 88)

This “second element of its character” refers to the second part of the “three-fold character” of actual entities discussed earlier: “the subjective character aimed at in its process of concrescence.” (*P&R* 87) This is also hinted at in the quotation above that asserts that an actual entity can never be free from the limitation of its datum; it mentions “the freedom of feeling arising in the concrescence.” And in his description of the four stages that constitute an actual entity he states that “the datum is indeterminate as regards the final satisfaction. The ‘process’ is the addition of those elements of feeling whereby these indeterminations are dissolved into determinate linkages attaining the actual unity of an individual actual entity.” (*P&R* 150) In the same description, he also refers to the process stage as “the stage in which the creative idea works towards the definition and attainment of a determinate individuality.” (*P&R* 150)

While the datum of an actual entity imposes limits upon that entity, it is also “indeterminate as regards the final satisfaction,” allowing room for the “creative idea” at work in the process stage of the entity to have some freedom in defining that satisfaction. This “creative idea” corresponds to “the second element of its character”; that is, to the subjective character the actual entity aims at, or what the actual entity is “for itself,” in roughly Hegelian terms. Both the “creative idea” and the actual entity’s subjective aims give internal direction to its process of concrescence. This internal direction constitutes some degree of self-causation, allowing the actual entity to at least partially transcend the limitations of its datum and enjoy an element of freedom. An actual entity’s datum limits it, but it does not wholly define it. There is room for its subjective aims—what it is “for itself”—to add something novel into its own definition, and so in this regard the actual entity is free.

In applying this metaphysical freedom of an actual entity to the issue of free will, the most important consideration is that a person's presiding personality forms a society of personal order—that is, that it only has a single member entity at any one time. Rather than having to worry about matters of propagating the individual freedoms of individual actual entities in a wider society, the freedom of the presiding personality—which appears to be roughly equivalent to a person's will—is simply the metaphysical freedom of its single member entity at a given point in time. Free will is thus a simple and natural consequence of the metaphysical freedom of actual entities to determine their final characters in Whitehead's scheme.

Chapter IV: Applying the Specific Accounts

With brief overviews of Dewey and Whitehead's process-based accounts now complete, I will turn to how their views, and process-based views in general, bear upon the positions of Bok and Kane in the contemporary free will debate. At first glance, there seems to be room for both Bok and Kane to accept Dewey's social psychology and Whitehead's metaphysics, since social psychology and metaphysics are never discussed directly by either Bok or Kane. In Dewey's case, both Bok and Kane are looking at human action once deliberation is already involved, so there is no trouble in reconciling their accounts with Dewey's view that we usually act on a kind of "autopilot" governed by impulse and habit. In fact, Kane's notion of self-forming actions that then inform the way we behave in less crucial situations, while not the focus of the article of Kane's I am currently examining, seems very similar to this idea of Dewey's. In the case of Whitehead, the metaphysical views that Bok and Kane adhere to never come up explicitly in their articles, leaving room for at least a

possibility that they could adopt Whitehead's metaphysics. In general, both Dewey and Whitehead are dealing with issues well into the background of the issues that Bok and Kane address: Dewey is not discussing deliberation in particular but human action in general; and in *Process and Reality* Whitehead is discussing the fundamental nature of reality rather than human beings specifically. Even in his educational essays, Whitehead's specifically human developmental account is very general in character, establishing general patterns of human mental development rather than looking specifically at the process of deliberation. Because the issues addressed by both Dewey and Whitehead are of a far more general character than those addressed by Bok and Kane it is difficult to see if Bok and Kane accept the views of Dewey and Whitehead—if they do, that acceptance would form only the background of their own views, so the fact that matters of metaphysics and social psychology are never mentioned in their articles is not a surprise.

However, even if Bok and Kane do not accept Dewey and Whitehead's particular views, at least some process-based view is necessary to their accounts. As I have mentioned before, Kane clearly sees deliberation as a process, as the recursive networks he relies upon could not be recursive if they were not processes. And even though Bok focuses on the information that can be of use to deliberation and the moment of judgment and never explicitly says that deliberation must be a process, she will still require some kind of process running in the background to provide the information for deliberation and to act as the basis of that judgment. For instance, the gradual changes of human society would be involved in providing the social norms that qualify what counts as reasons for judgment—what counts as a good reason to act

in a certain way at one time in a society may not count as a good reason to do so at another time.

Furthermore, for both Bok and Kane deliberation seems to be analogous in many ways to Whitehead's process-based actual entities. Deliberation can be interpreted quite easily as consisting of the same four stages as actual entities: datum, which would be the information that makes up the starting point of the deliberation, including the initial character of the individual carrying out the deliberation; process, which would be the unification and reconciliation of this starting information, and might be seen as being the core of the deliberation just as the process stage is the core of actual entities; satisfaction, which would be the judgment that is made as a result of the deliberation; and decision, which would be the effects of the judgment on the action being issued. Under this interpretation of deliberation, Bok's focus is on the kind of information that can form the datum of deliberation, as well as on the satisfaction—the "moment of judgment"—of deliberation, while Kane's focus is firmly on the process stage. For Bok information about determinism, whether it is true or not, could never be a part of the datum of deliberation, and for Kane freedom of the libertarian kind arises due to the nature of the process stage of deliberation.

Since Whitehead's actual entities are explicitly based on processes—and in many ways simply *are* processes—the possibility of interpreting deliberation as being composed of the same four stages that constitute actual entities is a strong indication that deliberation is process-based. However, this does not guarantee that deliberation necessarily must be a process. Fortunately, this is not nearly as damaging as it may seem, for even if deliberation itself is not a process with subordinate steps it must at least be seen as a step in a larger process leading to action. The only reason Bok and

Kane—or anyone else for that matter—are interested in deliberation at all is because of its connection to and effects on human action. Without the connection to action afforded by an overarching process, deliberation would be superfluous, as it would have no effects on anything. For example, if I were falling off a building and was going to hit the ground no matter what I did, then deliberation about my situation would be superfluous. In this situation, the brute laws of physics divorces my deliberation about what to do from what will actually occur simply because it is not in my power to affect events. Of course, I might deliberate about trying to grab onto something on the way down, or about flapping my arms in a futile attempt to slow my descent, or what I will be doing in general on my way down, but deliberation about my situation at large is still superfluous. It is unconnected to any kind of efficient human action, and while it may be of some interest from the point of view of a phenomenologist attempting to describe the character of a falling person's experience it is most certainly not of any interest to an attempt to establish free will. As a further example, if I were to deliberate about something such that the outcome of my deliberation was to decide to perform some particular act, *A*, but I were to instead perform act *B* due to circumstances out of my control, such as an addiction or other compulsion, my deliberation and decision to do *A* would be disconnected from the actual action I perform. This makes my deliberation in this case effectively meaningless, or at least far less relevant to my action than whatever factors compelled me to perform an act other than the one I had decided upon. It would be a purely private phenomenon, with no effect upon the way I behave and interact with the world.

This is not to say that deliberation always involves decisions between particular acts only—deliberation might also involve decisions between general ideals

or principles, such as notions of justice or expediency, that do not directly determine any particular acts. However, although a general ideal may not directly determine any particular acts by itself, as it is after all general in character, it can determine the particular act to be performed when applied to a particular situation. If I decide to follow some ideal in some particular situation, even though the general ideal does not by itself determine any particular acts, there will be a possible act in that particular situation that will best adhere to that general ideal. For instance, if I were deliberating about how to divide up a pie between myself and my friends and I decided to follow the principle of equal treatment, the act that best adheres to that principle given the situation would obviously to divide up the pie in such a way that we each get a piece of equal size. The principle of equal treatment by itself does not determine any particular actions; only when considered in the context of a particular situation does it determine a particular action, by giving the criteria for which action would best adhere to that principle in that situation. In other words, in order to get a particular action out of a general ideal like the principle of equal treatment, we need to ask “What amounts to equal treatment *in this situation?*” So, even though deliberation might be about general ideals to adhere to rather than particular acts, a decision to follow some general ideal will always amount to a decision to perform the particular act that best adheres to that ideal in that situation. Even deliberation about generalities will result in particular acts.

Furthermore, if deliberation about general ideals is disconnected from the act performed it will become just as meaningless and irrelevant as deliberation about particular acts is when similarly disconnected. If I decide to follow some ideal, for instance a principle of justice rather than expediency, but the actual act that I perform

is not the one I deem to best adhere to that principle, my choice of justice over expediency is meaningless. To continue the example of dividing up a pie, if I decide to follow the principle of equal treatment, the obvious thing to do, as I said above, would be to simply cut the pie into however many equal-sized pieces. If, however, I instead divide the pie up differently, such as by scaling the size of the pieces I give to each of my friends by how tall they are, even though the outcome of my deliberation was to follow the principle of equal treatment, my decision to treat my friends equally would be meaningless—I might as well have not bothered deliberating at all.

I think it should be noted that all this focus on the importance of the connection between deliberation and action is not meant to devalue deliberation. It is only meant to point out that it is from its effects on action that deliberation derives its value—deliberation that has no effect on action is worthless, in much the same way that action without deliberation can be unintelligent and dangerous. This is also not a statement of a consequentialist moral theory. Not only is the moral value of actions not what is at issue, consequences themselves have not even been mentioned here. All that is at issue is the connection between deliberation and the action itself, not the indirect connection between deliberation and the potentially unforeseen consequences of that action.

Aside from being connected to action, deliberation also needs to be connected to pre-existing conditions in order to count as deliberation about any specific thing—if my deliberation about a certain situation is not at least partly informed by the conditions of the situation itself, it is arguable that I am not actually deliberating about that particular situation at all. If I were to deliberate about a financial decision, for instance, without paying attention to any of the conditions relevant to that decision—

such as my personal finances, suggestions from financial advisors, past experience, etc.—all context of the decision is lost. If I make no reference to any of these relevant conditions in order to make my decision, it would cease to be a financial decision at all and would instead be a decision only about whether or not to perform the particular action that *would* represent a financial move if the proper context was actually attached. I would be deliberating only about the signing of some pieces of paper, for example, instead of deliberating about the change to my finances that such an action represents, and even then some context would be needed to provide meaning to “signing,” “paper,” and so on. It would be extremely difficult to say exactly what someone deliberating without any reference to pre-existing conditions and context is actually deliberating about, or even if they are deliberating at all rather than acting entirely at random. Furthermore, I think it would be uncontroversial to say that even if deliberation that does not take relevant pre-existing conditions into account does still count as deliberation about something, it is definitely an example of improper—if not downright insane—deliberation.

So in order to have proper deliberation about a particular situation, that deliberation needs to have at least some connection to pre-existing conditions; and in order for that deliberation to be meaningful and of any interest to an account of free will, it needs to be connected to human action. In short, deliberation needs to be both affected by pre-existing conditions and effective upon human action—a step in the process that leads to action—if it is to relate at all to a discussion of free will. Thus it seems plausible to say that a process-based view of human action, if not deliberation itself, is necessary for accounts attempting to establish free will, at least insofar as these accounts rely on deliberation to do so. Since Bok and Kane both use

deliberation in this way, both of their accounts must have a process-based view of human action at their cores if they are to succeed.

So it seems that a process-based view of human action is necessary to establish free will in the kinds of accounts given by Bok and Kane. However, could a process-based view of human action not also be *sufficient* to establish freedom of the will on its own? Dewey and Whitehead both seem to think so. Dewey is explicitly uninterested in “metaphysical” free will and the supposed opposition between restrictive organization and freedom. He admits that organization, and not only just over-organization, can be restrictive, but since some degree of organization is necessary for action to occur at all on his view this does not pose a problem. A far greater problem would result from removing the organization, because then no action, let alone any free action, would be possible. This necessary loss of some degree of freedom is downplayed by Dewey—the “metaphysical” freedom that is lost is not the important kind of freedom that people desire and would fight for, he claims. It is perhaps interesting that this echoes the compatibilist slogan of “freedom worth wanting.” In any case, Dewey believes that his account is sufficient to establish a worthwhile freedom.

Whitehead also thinks his process-based account allows for freedom, but his view of freedom, like the rest of his account, is more metaphysical than Dewey’s. He believes his process metaphysics includes a metaphysical freedom that, while not restricted to freedom of the will, certainly includes it. The metaphysical freedom that is enjoyed by actual entities allows for freedom at higher and higher levels of organization—if all their component parts are free, then it is plausible to say that societies of entities will also possess an analogous freedom. Also, specific to freedom

of the will, since human beings are generally governed by their presiding personalities, which have personal order and so have only one member at any one time, the metaphysical freedom that applies to that single member of an individual's presiding personality has an even greater—or at least a more direct—effect than it might in a society without a presiding personality. This freedom of the presiding personality might be equated with freedom of the will, as the current member of an individual's presiding personality could be seen as at least representing that individual's will at that particular moment in time. However, despite asserting that actual entities are metaphysically free, Whitehead makes no elaborate attempts to establish this freedom as Bok and Kane do in their accounts. Whitehead takes this metaphysical freedom as simply a fundamental part of the universe. In spite of his statements regarding the restriction placed upon an actual entity by its datum, Whitehead also says that actual entities are fundamentally, metaphysically free. And unlike Dewey, who at least explicitly notes the tension that exists between restriction and freedom before dismissing the problem, Whitehead does not even address that tension, at least not in *Process and Reality*. He seems to take it for granted that a metaphysics based on process would allow for metaphysical freedom. As an aside, Whitehead might interpret the indeterminacy that apparently results from the kinds of recursive neural networks described by Kane as an example of the metaphysical freedom he thinks is inherent in the universe, but he apparently felt no need to support his assertions with such examples if any existed at the time of his writing. Whitehead would also likely agree with the libertarian position that the universe is not fully deterministic.

In both Dewey and Whitehead, complete freedom from restriction is rejected. For Dewey, organization is necessary for any kind of meaningful human action to

occur, restrictive though it may be. For Whitehead, an entity can never be free of the restrictions imposed on it by its datum even though some measure of freedom is introduced by the process stage of the entity; although the datum of an entity limits what that entity can become, without the starting point it provides an entity could not even exist. Both Dewey and Whitehead then accept some restriction as necessary for free action to occur, Dewey at the social and psychological levels and Whitehead at the metaphysical level. This amounts to a rejection of doctrines of absolute negative freedom—instead of freedom from restriction, the positive freedom of efficiency in action takes pride of place. This is especially so for Dewey, but it applies to Whitehead as well, although he puts it in terms of what an actual entity becomes. For Whitehead, the restriction of an actual entity's datum is interpreted as limiting what that entity can become, but despite this limitation an actual entity does still have some freedom in what it will become—presumably within the limits imposed by its datum, but freedom nonetheless. An actual entity's freedom in precisely what it becomes is roughly equivalent to Dewey's efficiency in action, and thus an instance of positive freedom.

It is important to note that the positive freedom favoured by Dewey and Whitehead is not established separately from their process-based accounts. Positive freedom is simply a direct result of the process: Dewey's account enables efficiency in action without having to establish it separately; similarly, Whitehead's account posits an actual entity's freedom of becoming as a fundamental feature of the universe, not something that needs to be separately justified. For Dewey and Whitehead, freedom of the sort they are interested in comes directly from the processes that form

the core of their accounts—their process-based views are sufficient for a positive variety of freedom.

However, in rejecting complete freedom from restriction in favour of some degree of positive freedom, Dewey and Whitehead would reject the libertarian position in the contemporary free will debate. Libertarians believe that complete freedom from restriction in at least some regard is necessary in order to have truly free will or free action. They account for this complete freedom in varying ways: for Kane, this freedom from restriction is to be found in the indeterminacy that results from interconnected recursive neural networks in the brain during deliberation. This indeterminacy represents a significant break in the causal determinacy set up by the pre-existing conditions that led to deliberation—far more of a break than either Dewey or Whitehead would be willing to allow. Thus Kane runs afoul of the accounts of Dewey and Whitehead in his adherence to the libertarian idea that complete freedom from restriction is the only way for free will and free action to exist.

However, it must be noted that Dewey and Whitehead both also require at least some negative freedom in play in order to have any of their positive freedom. Dewey admits this fairly explicitly in his discussion of freedom in *Human Nature and Conduct*, where he includes both “efficiency in action” and “the absence of cramping and thwarting obstacles” as two sides of the same element of freedom (*HN&C* 303). “Cramping and thwarting obstacles”—that is, restrictions—must be absent in order for there to be efficiency in action. For example, I might be the most physically able person in the world, but if there is a fifteen-foot wall in my way I will be unable even to cross the street. With such an obstacle in my way, my personal power cannot translate into efficient action. By the same token, however, a complete lack of

obstacles and restrictions would mean nothing without at least some personal power—that is, positive freedom, or “freedom *to*”: even if there were no obstacles blocking my path, I would still not be able to cross the street if I lacked the ability to walk. For Dewey, efficiency in action and absence of restriction are two aspects of the same thing. Put another way, in order to do anything I must be both *able to do it* and *not restricted from doing it*. At least some negative freedom is needed in order to have positive freedom in Dewey’s account. Furthermore, although most human action is determined by the interplay of impulse and habit, it is not fully determined by these factors, as the inevitable contact with the surrounding world may complicate or otherwise frustrate the resulting action. This would provide the opportunity for deliberation to become involved, reviewing and potentially changing habits; this introduces at least a partial freedom from the restriction of those habits in that they can be changed. If impulse and habit fully determined action this would not be possible; human beings would behave entirely automatically, and our actions would soon become rigid and ineffective in the face of changing conditions. If we are to maintain our efficiency in action through periods of change our action must not be fully determined by the pre-existing conditions of impulse and habit; some freedom from the restrictions of these conditions must be in place.

Similarly, negative freedom is needed to some degree in Whitehead as well. The datum of an actual entity does restrict its possibilities for what it might become, yet it is also not fully determinate of precisely what the entity *will* become. It is “indeterminate as regards the final satisfaction.” (*P&R* 150) This “indeterminacy” is then filled in by the creative process stage of the actual entity, finally determining the satisfaction of the entity. The general picture, then, is like this: the entity’s datum

imposes limits on what it might become, but not yet to the point of eliminating all but one possibility. Even taking restrictions of the datum into account, there will still be many possibilities for what the entity will become. The process stage is then largely the working out of which possibility for becoming the entity will actually follow. This stage possesses some negative freedom, even though it is only within the confines defined by the entity's datum. Although the datum narrows the field of possibilities open to an actual entity, the entity is still free from restriction in its "choosing" from amongst the possibilities in that narrowed field.

The term "underdetermined" might be the best way to describe how Dewey and Whitehead see human action. Human action is determined to some extent by pre-existing conditions—impulse and habit for Dewey, the datum of the relevant actual entity for Whitehead—but it is not fully determined by these factors. There is still room within the limits set by these conditions for variety and novelty, so to some extent human action is also undetermined. It is both determined and undetermined at once, but only partially so for each. The determination that exists only goes so far to defining human action, leaving the rest of the definition up to indeterminate factors—human action is "underdetermined" by pre-existing factors.

So it seems that Dewey and Whitehead would also reject the compatibilist position, which is either to completely accept determinism but insist that free will is possible regardless or, as is the case with Bok, to assert that the truth or falsehood of determinism is irrelevant to matters of free will. For both Dewey and Whitehead, it would be impossible to have true free will or free action if everything was fully determined, although some determination is necessary to have action at all. Not only is complete determinism rejected, the weaker compatibilist assertion that determinism

is irrelevant to freedom is also rejected, as some degree of both determinism and indeterminism is required by freedom and thus not irrelevant. Thus Bok also runs afoul of Dewey and Whitehead's accounts—neither the compatibilist nor the libertarian gains favour from either.

However, it must be noted that Dewey's rejection of determinism applies only at the social and psychological levels. He leaves the question of whether or not *metaphysical* determinism is true open, saying:

“A hypothetical answer is enough. *If* the world is already done and done for, if its character is entirely achieved so that its behavior is like that of a man lost in routine, then the only freedom for which a man can hope is one of efficiency in overt action. But *if* change is genuine, if accounts are still in process of making, and if objective uncertainty is the stimulus to reflection, then variation in action, novelty and experiment, have a true meaning.” (HN&C 310)

So at the metaphysical level Dewey seems very much to be a compatibilist in that he thinks that freedom, albeit of a restricted sort, is possible in a deterministic world. However, shortly after this quote he then says “upon an empirical view, uncertainty, doubt, hesitation, contingency and novelty, genuine change which is not mere disguised repetition, are facts,” and “to say that these things exist only in human experience not in the world, and exist there only because of our ‘finitude’ is dangerously like paying ourselves with words.” (HN&C 310) More directly, he says “variability, initiative, innovation, departure from routine, experimentation are empirically the manifestation of a genuine *nisus* in things.” (HN&C 310) Dewey asserts the empirical fact of indeterminacy—that is, the fact of its existence from the human perspective—in spite of leaving open the question of metaphysical determinacy. He also rejects perhaps the easiest rationale for saying the universe is deterministic in spite of our experience of indeterminacy, although he never goes so

far as to push his views of indeterminacy past the empirical level and into the metaphysical, thus answering the question of metaphysical determinacy. He simply suggests that the indeterminacy experienced by human beings *may* apply to the world on the metaphysical level, and that saying the only reason humans experience indeterminacy is because they are finite is no defense against this—the question is still very much open to debate. However, while Dewey may be open to compatibilism at the metaphysical level, he remains against it at the social and psychological levels—freedom cannot exist with complete determinism, and neither is determinism irrelevant to matters of freedom.

Chapter V: Applying a General Process Account and Conclusions

So much for how Dewey and Whitehead's specific views bear upon Bok and Kane's accounts. Both Dewey and Whitehead adopt something of a middle ground between Bok's compatibilist account and Kane's libertarian account, accepting and rejecting aspects of both. However, a generalized process account of human action might not do this; it might be elements specific to Dewey and Whitehead that result in this "middle ground" view. To see if this is the case, I will consider Bok and Kane in light of a far more general view of process, including only those elements that seem to be integral to the idea of process itself and excluding the elements that appear to be specific to either Dewey or Whitehead. Thus, I will be excluding Dewey's theory of impulse and habit as the basis of human action, as well as Whitehead's assertion that freedom is a fundamental part of the universe. If freedom is to be established, it will be so only on the basis of the elements integral to the basic idea of process. The specifics of Whitehead's theory of prehensions will also be omitted from my

generalized view of process; however, this theory, at least as I have outlined it above, is general enough that I think the basic idea of existents affecting other existents (whatever those existents might be) that lies at the heart of the theory of prehensions will apply to a general process view. At the least, I suspect that it is uncontroversial to say that existing things have affects upon each other—simple physics is largely a study of forces and effects that occur between existing things.

Doing my best to exclude elements specific to the process-based views of Dewey and Whitehead, and taking at least the main points of the dictionary definition of process, my general account of process is as follows: a process is a series of steps or operations that occur in a certain order, and any activity that can be described as such counts as a process; at least within a particular process itself, the steps of that process must be connected to each other by a continuity of effects—a step that has no bearing on preceding or succeeding steps of the process is not truly a part of the process; each step of a process is therefore subject to restrictions and limitations imposed by the effects of previous steps; however, each step must also be independent from the other steps of the process, at least to some extent—if a step was fully determined by earlier steps it would simply be a part of those earlier steps, and there would be no reason to count it as a separate step at all. A kind of connected independence is then the core idea of this general view of process. This may seem to be something of a paradox, but a look at a series of simple mathematical operations will help to dispel this apparent contradiction. Consider the process of adding one to a number and then dividing the result by two: it is clearly a series of operations that occur in a certain order, and therefore counts as a process; there are no steps in this (admittedly very simple) process that lack connection to their preceding and

succeeding steps; and each step is subject to the restrictions of previous steps in that previous steps determine the precise number that is to be subjected to the operation of the current step. This establishes the connectedness of the process. However, the steps are also independent of each other: the operation of adding one is not carried out any differently because it will be followed by division by two, and that operation of division is unaffected by the fact that it was preceded by addition by one. While the second step, dividing by two, is affected by the first step in that the first determines the exact number that will be divided by two, the way in which that division is carried out is *not* affected by the earlier step. In this way the second step is both connected to and independent from the first step.

In the specific case of deliberation, considered as a step in a process that results in human action, deliberation must be connected to previous steps in that it must take into account information that comes from those previous steps. These previous steps might take the form of sensory observation, memories of past deliberation, or anything else that would be relevant (exactly what counts as previous steps in the process would be dependent upon a more specific account of the process that leads to action). Similarly, the current deliberation must be connected to the action that will result from it. As I have said, any deliberation that does not affect the succeeding action is superfluous—in terms of my generalized view of process, this kind of ineffective deliberation would not even count as a part of the process leading to action. However, despite these strong connections to preceding and succeeding steps, deliberation is also independent in the same way that one mathematical operation in a series of operations is so: while previous steps will supply the raw materials, so to speak, that the operation of deliberation will work upon, and thus

affect the precise outcome of that deliberation, how the deliberation itself proceeds will not be affected in any other way by the other steps of the process. Deliberation can then be seen as an expression of the character or will of the individual that is deliberating—while the precise content of their deliberation is determined by the preceding steps of the process, the method of deliberation is not. Naturally, a person’s character or will can be greatly affected by previous processes—the action that resulted from an earlier process might have resulted in a change to some aspect of the individual’s character—but within a single process a person’s character is essentially set. Any change that might occur as a result of that single process would not affect that process itself, although it would affect later ones.

This generalized view of process opposes Kane’s account in much the same way that Dewey and Whitehead’s views did: as a libertarian, Kane believes that some break in causation is necessary for freedom to exist, and such a significant break could not exist within the connections of a process. Then, given that I have established that a process-based view of human action is necessary to accounts of free will involving deliberation, as Kane’s does, there is a contradiction in Kane’s account. However, it must be said that this uses a fairly strong interpretation of Kane; a weaker interpretation of Kane’s libertarian account that does not violate the requirements of processes given in my generalized view of process may be possible. For example, Kane might be interpreted as saying that the only “causal break” involved is the indeterminacy between choosing one possibility over another, the extent of those possibilities still being determined by the effects of previous steps of the process leading towards action. That is to say, the previous steps underdetermine the outcome of the process, and the only indeterminacy involved is that which chooses the course

of action that will actually be followed from an already narrowed field of choices. This would maintain the connections between the steps needed for a process; rather than a full causal break in the process, there would only be an indeterminate step in that process. To give another simple mathematical example, a process with an indeterminate step that still maintains the connections between the steps would be something like the following: multiply a number by two, flip a coin and add one to the result of the last operation if the coin comes up heads but subtract one if the coin comes up tails, then divide the result by three. The middle step, the one involving the flipping of a coin, is obviously indeterminate in its outcome. However, it still maintains its connections to the other two steps: it still takes its starting point from the result of the first step, and it still provides the starting point for the final step. Also note that the only possible results of the indeterminate step, while being indeterminate, are also restricted to results that would be applicable to the final step—if the indeterminate step had said that the number should be replaced with a portrait of the Queen of England if the coin comes up tails rather than just subtracting one, it would have been possible for it to result in something that could not apply to the final step, thus breaking the connection between the two. It need not be such a ridiculous example, either—any result from the indeterminate step that could not be applicable to the next step would break the connection between the two steps. This kind of indeterminacy cannot be allowed in a process, as it does not maintain the connections between the steps of the process. Similarly, indeterminacy that breaks the connection between the indeterminate step and its predecessors also cannot be allowed: if the coin toss to determine which operation would be performed upon the previous result were replaced with a random number generator that took no cues from previous steps

the connection to past stages of the process would be severed. In fact, the previous stages might as well not even have occurred, so complete is the break that this random number generator would result in—it is like starting a wholly new process. So a process can contain indeterminate steps, but only so long as the connections between the various steps are maintained despite the indeterminacy. Note that the weaker interpretation of Kane's account would maintain these connections in the process leading to action; the indeterminate step (deliberation) is carried out using the results of previous steps (the two options being considered) as a starting point, thus maintaining the connection to previous steps, and also provides the starting point (the decision arrived at) for any subsequent steps that lead to action. This means that the weaker interpretation of Kane's account, saying only that the previous steps in the process leading to action only narrow the possibilities, underdetermining the outcome, would fit with the generalized view of process.

There is some support for this interpretation of Kane's account in his example of a woman forced to choose between making it to an important meeting on time and helping a stranger (Kane 307). Kane limits the choices to two in order to keep the example simple, but this only makes explicit something which would be occurring anyway: whenever we are faced with choices, we will always narrow down our possibilities in this way. We will not always narrow the choices down to just two, but some options will always be rejected in favour of a much narrower field of possibilities. For instance, the woman in the situation in Kane's example would likely be faced with options other than simply "help the stranger" and "ignore the stranger and make it to the meeting"—surely "do nothing at all," thus failing both to help the stranger and make it to the meeting on time, is also an option—but these options will

have been rejected as possible courses of action. This rejection will take place as part of the process leading to action, of which deliberation is a part; perhaps not within the deliberation itself, but certainly at some point either before or during the deliberation. This amounts to the selection of the two options—“help the stranger” and “ignore the stranger and make it to the meeting”—as the options for deliberation to choose between.

Deliberation asks “which of these options should I choose?” but we can just as easily ask “why those two options—why not different ones?” The answer must be that those are the options favoured by the process leading up to and including the deliberation. Even if the outcome of deliberation between these two options is indeterminate, it is still determined that it is deliberation between *those two options* and not other ones—either at an earlier stage of deliberation or at an earlier stage of the larger process of which deliberation is only a part those two options were selected by the simple expedient of having eliminated all other options. In Kane’s example, although the result of the woman’s deliberation between either helping the stranger or making it to her meeting on time may be indeterminate it is still a determinate fact that she had narrowed her choices down to just those two options. With that determinacy in place, the connections between the various stages of the process leading to her action are maintained—there is no hard break in causality to interrupt the process by keeping preceding steps from affecting succeeding ones.

However, there may be some difficulty with this interpretation of Kane. A major point he makes in “Responsibility, Luck, and Chance” is that despite the indeterminacy involved in his account of deliberation we are still responsible for our actions. He achieves this by saying that, in cases like his example of the woman

forced to choose between helping a stranger and making it to an important meeting on time, even though our deliberation is indeterminate we still desire both outcomes. Thus, whatever we end up doing, we will always end up doing what we wanted to do (Kane 315). This is a particularly strong argument, apparently designed to allow responsibility to survive despite indeterminacy of the “full causal break” variety. If Kane’s position was only that the choice between two desirable options is an indeterminate step in a larger process, with all the connections of that process maintained, it is not clear that he would need to go so far to establish responsibility. He could simply say that the responsibility lies in narrowing the choices down to some particular two—for example, if I flip a coin and resolve to do *A* should the coin come up heads and *B* should it come up tails, although I am using an indeterminate method to choose exactly what I will do I am still responsible for narrowing the options to just *A* and *B*. In other words, I am responsible for choosing the options which will be indeterminately chosen from.

Of course, it is possible that Kane is saying precisely that—saying that both outcomes are desired might be only a different way of phrasing the thought that even in a case where a choice is made by indeterminate means we will still be responsible for that choice if we are responsible for defining the field of possibilities that will be chosen from. Kane’s arguments in “Responsibility, Luck, and Chance” are primarily aimed at countering the idea that indeterminacy will always result in a break in causality and therefore always disrupt responsibility. Kane may simply be phrasing his arguments to say that *even if* indeterminacy did result in a hard break in causality it would still not disrupt responsibility, or at least not in the important cases (such as Kane’s “self-forming actions”). The weaker interpretation of Kane’s position

explicitly attacks the idea that indeterminacy necessarily results in a break in causality—this may be a fair interpretation of his position, but his goal in “Responsibility, Luck, and Chance” is to defend against the charge that breaks in causality would disrupt responsibility.

Applying my generalized view of process to Bok’s account is a bit more complex. At first glance there seems to be no trouble with having a completely deterministic process—it would just be a process without any indeterminate steps of the kind I described above. The outcomes of all processes would then be fully determined by their starting points. For example, in the simple process of adding one to a number and then dividing the result by two, using the number three as a starting point will always give two as the final result. In fact, any number will always give only one result when run through this process: one will always result in one, five will always result in three, and so on. There is no room for novel results. However, despite this complete determinacy we would still have positive freedom, or efficiency in action: even if the goals I set for myself and the methods I use to achieve them are fully determined, I am still free to pursue those goals by those methods. For instance, if I am hungry I set for myself the goal of having something to eat, and might choose having a hamburger at a local fast food restaurant as the method by which I will attempt to achieve this goal. Even if my hunger, my selection of a goal, and my selection of a method to achieve this goal are all the result of fully deterministic processes—meaning that I could not help but be hungry and select this goal and this method—I am still free to attempt to achieve that goal by that method. I have the freedom *to* pursue my goal, determined though it may be; that is, I still have positive freedom.

This covers the kind of compatibilist who accepts determinism but asserts that freedom is still possible. However, Bok is not that sort of compatibilist: her position is that the truth or falsity of determinism is irrelevant to the question of freedom, or at least the kind of freedom that is important, since information about determinism cannot be used in practical deliberation. This complicates things somewhat, for although the argument that positive freedom still exists in a deterministic world still applies, there seems to be a way in which the truth or falsity of determinism is very relevant to freedom. Even if we assume that the “important” kind of freedom that Bok is talking about is positive freedom, and therefore still exists in a deterministic world, it seems that positive freedom, or efficiency in action, is threatened by indeterminacy—that is, by the falsity of determinism. This is precisely the opposite of the usual free will problem: rather than the notion that determinism, if true, would limit freedom by imposing restrictions upon the will and action, we are now faced with the idea that indeterminacy imposes limits on the efficacy of the will and action. It would do so by decreasing the control we can exercise over our actions, or by making the effects of our actions indeterminate and therefore more difficult to predict, thus limiting our efficiency in pursuing our goals. For instance, consider my earlier example where I set for myself the goal of having something to eat and choose the method of having a hamburger at a fast food restaurant as the means by which I will pursue that goal. I will likely have chosen this method based on some knowledge of its effectiveness in the past, either from experience or some other source, but if the satisfaction of my hunger by eating fast food is somehow indeterminate it is possible that this chosen method will not have the result for which I am aiming. Or perhaps, as I get in the car to drive to the restaurant, some indeterminacy inherent in the operation

of my car might cause it to fail to start, thus thwarting my pursuit of my goal. Or, even closer to home, some indeterminacy in my nervous system might cause me to behave entirely differently despite having set for myself the same goal and the same method by which to pursue it (this would likely be seen as a pathological case). In all three of these cases, my efficiency in action—my positive freedom—is restricted.

To give another example, the process of choosing a number, tossing a coin and adding one to that number if it comes up heads and subtracting one if it comes up tails, and then dividing the result by two is an indeterminate process—that is, it contains an indeterminate step. Suppose I set myself the goal (for whatever reason) of achieving a result of the number two, and choose using three as my starting point as the method by which I will pursue this. This makes sense, because if the coin comes up heads and I add one to three then divide by two, I will get two as a result. However, the process is indeterminate: the coin might come up tails, in which case using three as the starting point would give the number one as the result. Assuming that I use a perfectly fair coin, my chosen method for getting the number two out of this process has only a fifty percent success rate, statistically speaking. I could, of course, change my method to using five as my starting point, but this would not change my success rate at all—it would still be a fifty percent success rate, as I would have equal chances of getting the numbers two and three. The indeterminacy inherent in the process poses an obstacle to my success in achieving my goal. Because the results of my actions in pursuing my goal are indeterminate, I cannot be guaranteed success based only on the method I choose—using three as my starting point might work, but only if the coin toss comes up heads—which limits my efficiency in achieving my goal. In other words, indeterminacy has the effect of limiting my positive freedom.

Bok says nothing about this particular problem, at least not in “Freedom and Practical Reason,” but Kane does admit to the problem even though he believes that indeterminacy is required for freedom. He gives an example of a sniper whose attempts to achieve the goal of making his shot are hampered by indeterminate factors like a slight shake in his hand, unexpected gusts of wind, and so on (Kane 308). He argues that the sniper would be responsible for his action if he was able to make the shot in spite of these indeterminate factors, but nevertheless admits that they would pose a kind of obstacle to his success. More directly, he says later that “indeterminism, wherever it occurs, functions as a *hindrance* or *obstacle* to our purposes that must be overcome by effort.” (Kane 318)

Note, however, that this says nothing against Bok’s argument that information about the truth or falsity of determinism cannot be used to inform our deliberation. Information about the success rate of the various methods we might use to achieve our goals certainly is relevant to our deliberation, but this does not require any information about determinism. Indeterminacy is not the only way a method might vary between success and failure—the success of a particular method might be dependent upon wholly determinate conditions, so when it is enacted without those conditions being met it will result in failure (and is determined to do so). In such a case indeterminacy is not the obstacle to our success, but rather a lack of knowledge about the conditions necessary for success in a deterministic system. Information about either the success rate of a method or the conditions for a method’s success fill roughly the same roles in indeterminate and determinate worlds, respectively, at least in terms of relevance to deliberation. But while Bok’s argument about the relevance of information about determinism to deliberation still stands, the further statement that the truth or falsity of

determinism is irrelevant to matters of freedom—that is, the statement of the compatibilist position—cannot be supported. No matter how our deliberation may or may not be affected by the truth or falsity of determinism, indeterminacy would hamper our pursuit of our goals. That is, it would limit our positive freedom to pursue the goals we set for ourselves. The truth or falsity of determinism is therefore relevant to matters of freedom.

Of course, even if determinism is false, strictly speaking, that only means that at least *some* indeterminacy exists. Given the findings of thousands of years of more or less systematic empirical observation, I think it is uncontroversial to say that even if the world is not wholly deterministic it is at least deterministic enough to afford us a significant amount of positive freedom. The efficiency of our actions is not wholly banished by what indeterminacy there may be in the universe. This being the case, if what we are talking about is just what kinds of freedom we have available to us, then the strict truth or falsity of determinism is irrelevant—even if determinism is false, our observations of the world indicate that it is at least deterministic enough to afford us *some* positive freedom. However, if what we are talking about is the *amount* of freedom we have, and in particular positive freedom, then the truth or falsity of determinism is very relevant, since indeterminacy, if it exists, will limit positive freedom.

Both Bok and Kane's accounts are consistent with my generalized view of process with only some reinterpretation and restrictions. Instead of requiring a hard break in causality, Kane's position can be interpreted to be that past stages of the process leading to action only underdetermine the results of that process, with deliberation involving an indeterminate step used to select the final result. Although

threatened by the idea that indeterminacy limits positive freedom, Bok's arguments still hold when restricted to only talk about the relevance of information about determinism to our deliberation rather than also making assertions about its relevance to freedom as well, or when restricted to deal only with the kinds of freedom we have rather than the amount of that freedom. Thus, much of what Bok and Kane say remains intact after applying my generalized view of process to their positions. That application also sheds some light on exactly how their two positions might be better interpreted to maintain consistency with the process-based view of human action that I have argued is necessary for any account trying to establish free will using deliberation.

I think it is interesting to note that in order to fit with a process view both Bok and Kane's views must be softened somewhat—this seems to suggest that the process-based view needed by accounts of free will that rely upon deliberation favours neither compatibilist nor libertarian positions in the extreme, but rather those that combine aspects of both. This is especially apparent in the interaction of positive and negative freedom. For instance, Dewey voices the notion that freedom from restriction (negative freedom) is only possible with some degree of indeterminacy, efficiency in action being “the only freedom for which man can hope” in a fully determinate world (*HN&C* 311-312), and that efficiency in action (positive freedom) is only possible with some degree of organization, there being “no effective or objective freedom without organization.” (*HN&C* 306) If we take this seriously, as well as the notion that organization threatens negative freedom and indeterminacy threatens positive freedom, then it seems that positive freedom and negative freedom are not separate ideas but rather mirror images of each other. That is, increased indeterminacy results

in decreased positive but increased negative freedom, while increased organization results in decreased negative but increased positive freedom—as one loses ground, the other gains it, and I think that it is plausible to say that the gain of one is in equal measure to the loss of the other. Add to this mirrored relationship the idea that both positive and negative freedom are required to have freedom proper—again perhaps found best in Dewey, who includes both freedom from restriction and efficiency in action as parts of a single element in his three-part definition of freedom (*HN&C* 303)—and the distinction between positive and negative freedom seems to collapse, or at least the two appear to be merely two sides of the same thing.

This blurring of the border between positive and negative freedom might be the most important contribution of a process-based view of human action to the current free will debate: if the negative freedom favoured by the libertarians and the positive freedom favoured by the compatibilists are not separate ideas but rather two sides of the same thing, then much like what Kant did with empiricism and rationalism in the *Critique of Pure Reason*, it may be possible to reconcile the two sides of the free will debate with an account that draws upon both, hopefully coming to a deeper understanding of human action and freedom in the process.

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