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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

# A WHITEHEADIAN CRITIQUE OF JAEGWON KIM'S ANALYSIS OF THE MIND-BODY PROBLEM

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

BY

E. SCOTT JONES
Norman, Oklahoma
2001

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A WHITEHEADIAN CRITIQUE OF JAEGWON KIM'S
ANALYSIS OF THE MIND-BODY PROBLEM

A Dissertation APPROVED FOR THE
DEPARTMENT OF PHILOSOPHY

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# ACKNOWLEDGEMENTS

I would first like to thank the various members of the philosophy department of the University of Oklahoma. When I came to OU, it was not with the intention of staying and completing my program there. However, I quickly came to enjoy the program and the people in it and am quite thankful for the opportunities provided the last five years. I also wasn't sure what topic I would research. Had it not been for the support of fellow Whiteheadians Kevin Durand, Jeff McBride, and Anita Chancey (whom I have missed), this project never would have been completed. Therefore, I would like to thank them for the many conversations spent ironing out technical questions of process philosophy and for the times spent simply enjoying each others company and conversation.

This dissertation is not simply a dissertation in process philosophy, but covers serious issues in the philosophy of mind. In the spring of 1997 Kevin wanted me to take the intersession Chomsky class that Ray Elugardo was teaching. I said at the time that philosophy of mind was one of the areas in which I was *least* interested. But I took the course, largely because at that time I was hurrying to complete the program. That and two subsequent courses in mind with Ray introduced me to the questions explored in this paper. I thank Ray for his clear comments, sharp critiques, and encouraging smile.

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Other members of the department have been important as well. Hugh Benson has often been ready to help when I had a question concerning the program or the job market. I want to thank Susan Nostrand and Shelley Konieczny for mailing my application packets, dealing with paperwork, making copies, asking questions, planning picnics, and who knows what other actions of support. The other faculty and students in the department have played a role in conversation, teaching, and even relaxation in the lounge.

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Various friends have supplied the support and needed diversions of entertainment over the last five years. This list would be too enormous to enumerate.

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Finally, this document is dedicated to the memory of two family members. First is my father, Randall Jones, who serves as an educator and a model. And I dedicate this to my grandmother Christine Jones. Grandma had a great love for reading and learning.

Had she lived in a later generation she would have been able to explore these desires to such depths she never got to experience. It was my grandma's wish that her estate go to support an education for my sister and me. Grandma, that was achieved. Thank you.

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# ABBREVIATIONS

The following abbreviations will be used in the citations of this paper.

AI--Alfred North Whitehead. Adventures of Ideas. 1st. Ed. 1933. New York: The Free Press, 1967.

AM--Bertrand Russell. The Analysis of Matter. 1st. edition, 1927. New York: Dover Publications, 1954.

AOT--Charles Sanders Peirce. "The Architecture of Theories." In Philosophical Writings of Peirce. Ed. by Justus Buchler. New York: Dover Publications, Inc., 1955.

CM--David Chalmers. The Conscious Mind: In Search of a Fundamental Theory. New York: Oxford University Press, 1996.

CN--Alfred North Whitehead. The Concept of Nature. Cambridge: Cambridge University
Press, 1920.

DCE--William James. "Does 'Consciousness' Exist?" In William James Writings 1902-1910. Ed. by Bruce Kuklick. New York: The Library of America, 1987.

DNE--Charles Sanders Peirce. "The Doctrine of Necessity Examined." In Philosophical Writings of Peirce. Ed. by Justus Buchler. New York: Dover Publications, Inc., 1955.

EAE--Donald Davidson. Essays on Actions and Events. Oxford: Clarendon Press, 1980.

ECHU--David Hume. Enquiries Concerning Human Understanding and Concerning the Principles of Morals. Ed. by L. A. Selby-Bigge. 3rd. Edition, Ed. by P. H. Nidditch. Oxford: Clarendon Press, 1975.

FR--Alfred North Whitehead. The Function of Reason. 1st. Edition 1929. Boston: Beacon Press, 1958.

HWP--Bertrand Russell. A History of Western Philosophy. 1st ed. 1945. New York: Book of the Month Club, 1995.

LN--Noam Chomsky. Language and Nature. Oxford: Oxford University Press, 1995.

LT--Noam Chomsky. Language and Thought. Wakefield, RI: Moyer Bell, 1993.

MASM--Noam Chomsky. Modular Approaches to the Study of the Mind. San Diego: San Diego State University Press, 1980.

MOT--William James. The Meaning of Truth. In William James Writings 1902-1910. Ed. by Bruce Kuklick. New York: The Library of America, 1987.

MPW--Jaegwon Kim. Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation. Cambridge, MA: The MIT Press, 1998.

MT--Alfred North Whitehead. Modes of Thought. New York: Macmillan Publishing Company, Inc., 1938.

PFM--Immanuel Kant. Prolegomena to Any Future Metaphysics that Can Qualify as a Science. Trans. by Paul Carus. Tenth printing. Chicago: Open Court Publishing Company, 1902, 1993.

PM--Jaegwon Kim. Philosophy of Mind. Boulder, CO: Westview Press, 1996.

PP--Bertrand Russell. The Problems of Philosophy. London: The Home University Library of Modern Knowledge of the Oxford University Press, 1912, 1957.

PR--Alfred North Whitehead. Process and Reality. Corrected Edition, Ed. by David Ray Griffin and Donald W. Sherburne. 1st. Edition 1929. New York: The Free Press, 1978.

PRAC--Immaneul Kant. Critique of Practical Reason. Trans. by T. K. Abbot. Amherst, NY: Prometheus Books,1996.

PRAG--William James. Pragmatism. In William James Writings 1902-1910. Ed. by Bruce Kuklick. New York: The Library of America, 1987.

PSY--William James. Psychology. First edition, 1892. Cleveland: The World Publishing Company, 1948.

PURE--Immanuel Kant. Critique of Pure Reason. Trans. by Norman Kemp Smith. New York: St. Martin's Press, 1965.

RM--Alfred North Whitehead. Religion in the Making. First Fordham Edition, 1946.New York: Fordham University Press, 1996.

THN--David Hume. A Treatise of Human Nature. Ed. by L. A. Selby-Bigge. 2nd. Edition, Ed. by P. H. Nidditch. Oxford: Clarendon Press, 1978.

S--Alfred North Whitehead. Symbolism: Its Meaning and Effect. 1st. Edition 1927. New York: Fordham University Press, 1985.

SM--Jaegwon Kim. Supervenience and Mind: Selected Philosophical Essays. Cambridge: Cambridge University Press, 1993.

SMW--Alfred North Whitehead. Science and the Modern World. New York: The Macmillan Company, 1925.

WPE--William James. "A World of Pure Experience." In William James: Writings 1902-1910. New York: The Library of America, 1987.

# ABSTRACT

At the end of *Supervenience and Mind*, Jaegwon Kim is left with a dilemma: he cannot save both mental causation and consciousness--in order to save one, he must sacrifice the other. This is a troubling conclusion. Kim is committed to mental realism, which asserts that mentality involves both causation and consciousness. So Kim himself finds the conclusion troubling. His arguments are a successful refutation of the popular position of nonreductive physicalism. I agree with the success of this refutation but want to reject his concluding dilemma.

In this dissertation I bring some of Kim's presuppositions to light with the intent of analyzing them. I analyze from the standpoint of the metaphysics of Alfred North Whitehead and find the way out of Kim's dilemma.

The first section of the dissertation examines Kim's views on the nature of physical reality, causation, physical causal closure, and experience. For example, I find that Kim's views of experience are limited by his inheritance from classical empiricism. Instead, a radical empiricism in the tradition of James and Whitehead is the proper philosophical position. Because Kim lacks this radical empiricism, he locates the source of his mental realism not in direct experience, as I do, but in *practical reason*. During my critique it becomes clear that Kim's mental realism functions as one of many *a priori* commitments. Because his mental realism is not a matter of direct experience but is an *a priori* commitment, Kim does not have the means of avoiding his own dilemma.

By contrast, when we adopt the Whiteheadian stance that basic experience reveals connections in the world, we can develop proper notions of causation, physicality, and mentality that are logically consistent, coherent, adequate to the data, and applicable to the broad range of our lives. Experience itself becomes the source for our doctrines of both subjectivity (in its higher form--consciousness) and causation. What results is a panexperientialist physicalism that rejects the basic dichotomy between mind and body that underlies Kim's analysis and avoids his dilemma by claiming that the mental and physical are two aspects or descriptions of the same event.

# INTRODUCTION

We have found, then, that what we *decide* to do is whatever *action* among those *up to us* we *deliberate* about and *desire* to *do*. Hence also, *decision* will be *deliberative desire* to *do* an *action* that is *up to us*; for when we have *judged* [that it is right] as a result of *deliberation*, our *desire* to *do* it expresses our *wish*.

Aristotle, *Nichomachean Ethics*, Bk. III,
ln. 1113a10-13[1] (emphases mine)

Our *beliefs* guide our *desires* and shape our *actions*.

Charles Sanders Peirce, "The Fixation of Belief"[2]
(emphases mine)

On a grander scale, it is human *knowledge* and *desire* that built the pyramids of Egypt and the Great Wall of China; produced the glorious music, literature, and other artworks of our forebears; built our great cities; detonated nuclear bombs; and caused holes in the ozone layer. Our mental events are intricately woven into the complex mosaic of causal relations of our world. At least that is the way things seem.

Jaegwon Kim, *Philosophy of Mind*[3]
(emphases mine)

As a young man, Julius Caesar learned about the accomplishments of Alexander the Great. He learned of Alexander's military abilities, how he had conquered most of the known world, and how he had extended his influence all the way to India. Caesar developed an admiration for Alexander, and, in turn, Caesar endeavoured to be like his model. There is a story that at the age of thirty, Caesar was in Spain and happened across

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[1]Aristotle, Nichomachean Ethics, trans. by Terence Irwin (Indianapolis: Hackett Publishing Company, 1985), 64.

[2]Charles Sanders Peirce, "The Fixation of Belief," in Philosophical Writings of Peirce, ed. by Justus Buchler (New York: Dover Publications, Inc., 1955), 9-10.

[3]Jaegwon Kim, Philosophy of Mind (Boulder, CO: Westview Press, 1996), 125.

a statue of Alexander. Caesar began to weep. He wept because he, Caesar, had not conquered the world by the age of thirty as Alexander had done.

Caesar had thoughts, beliefs, and desires, and these influenced his actions. Why did he weep? Maybe he cried because he feared that he would never achieve his dreams. Surely he wept because he had not reached his goals in the time that he had wanted to. Historians can debate the reasons, just as they can debate any of Caesar's motivations for any of his actions. Why can we, as humans, engage in these debates about historical figures and about ourselves? Because we have a basic belief that aspects of our mental life have influence over our physical life.

Thoughts, dreams, wishes, desires, judgements, emotions, sensations, and other aspects of mentality all enter into the network of our lives and seem to impact the world around us. Grand, wonderful things such as Beethoven's *Ninth* and Chartres Cathedral seem to be the outcomes of wonderful minds. Mundane things like writing this page or running to get one's lunch seem to have the same type of story behind them. Caesar's world-changing actions seem to stem from his mind. And, needless to say, ethical considerations, such as Aristotle's press us to recognize the role that mentality plays in human responsibility and goodness. As the three quotes above illustrate--mind is vital to our understanding of ourselves.

As we all know, however, the role of the mental has been called into question by our philosophical heritage. I am a realist about the mental. I do not want to eliminate it or reduce it. So, I am challenged to explain its reality and its affect on the world.

Surveying the current literature, one finds that it is difficult, if not impossible to hold this view and maintain any philosophical integrity. In fact, one could end up sounding dogmatic about a position with little support.

I do think that a defense of the mental can be made, but we must entertain the possibility that the methods and presuppositions of much contemporary philosophy of mind are flawed. The current major competing perspectives in the philosophy of mind are outgrowths of the analytic philosophy that has dominated Anglo-American philosophy through much of the twentieth-century. Early in this century, it was only one of a number of competing voices, among them British idealism, American pragmatism, and the emerging process philosophy.

My dissatisfaction with contemporary approaches to the philosophy of mind, are part of a larger dissatisfaction with much of twentieth-century, analytic philosophy. I propose that a different philosophical methodology, with different presuppositions, would have more explanatory adequacy. This overall life project will be focused in the following way in this dissertation. I want to look particularly at the philosophy of mind, and even more specifically, the mind-body problem. I will take the work of Jaegwon Kim as the best presentation of the outcome of the presuppositions and methodologies of the analytic tradition, as it relates to the philosophy of mind. Then, I will show how with a different methodology and different presuppositions, the problems of the philosophy of mind can be handled more successfully. Specifically, using the work of Alfred North Whitehead in the presentation and explication of this solution.

The series of papers that follows is broken into two broad sections. The first section presents the problem, and the second provides the proposed solution. Chapter One first addresses the meta-philosophical issue of what an appropriate philosophical method is. I adopt the view that philosophy is an attempt to construct a set of beliefs for the individual and the community based upon experience, which set of beliefs is consistent, coherent, applicable to its subject matter, and adequate in interpreting the data. Using these criteria, explicated in the first chapter, I ultimately judge that Whitehead's philosophy is superior to Kim's.

Chapters Two through Five explore Kim's positions. Chapter Two presents Kim's philosophy of mind as it leads to his dilemma that one cannot save both consciousness and mental causal efficacy. In doing so I defend Kim's attacks against Donald Davidson's Anomalous Monism, which would seem to be his most serious challenger. Chapters Three, Four, and Five then examine various presuppositions on the part of Kim.

The third chapter discusses the nature of physical reality. Kim writes in *Supervenience and Mind* that he does not need to develop a concept of the physical. I am critical of this position, because the nature of the physical is an open question. By fruitfully explore various options, one is made aware that there are views of physical reality that avoid Kim's dilemma.

Chapter Four concerns causation. Kim's view of causation is basically Humean. Humean theories have some fundamental problems that are both ontological and phenomenological. These are explored in this chapter. Related to Kim's view of causation

is his commitment to physical causal closure for the world. This *a priori* commitment enters into direct conflict with his own mental realism. With some help from a Peircean analysis, I demonstrate that his *a priori* commitment not only leads to his dilemma but is also wrong in the first place.

In the fifth chapter I turn to the most fundamental issue--the nature of experience. Though Kim never explicitly develops his views concerning experience, I cull them from his writings and find his place in the lineage descended from classical empiricism. It is also telling that he considers his mental realism to be a matter of practical reason, not experience. Thus, for Kim, mental realism is an *a priori* commitment and not a matter of direct experience.

Chapters Six through Nine are the Whiteheadian evaluation of these problems with the goal of constructing a different philosophy of mind and body that avoids Kim's dilemma. Chapter Six addresses experience by defending the radical empiricism of William James and its development by Alfred North Whitehead. Whitehead claimed that experience comes in two modes--presentational immediacy and causal efficacy. Whitehead takes our experience of causal efficacy to be basic in our experience of the world, thus he has many objections to Humean views of causation.

In Chapter Seven I explore those objections and Whitehead's own view of causation, which involves his original concept of *prehension*. Whitehead also makes it quite clear that any discussion of causation involves a discussion of time. Whitehead was a relativist concerning time, being influenced by Leibniz, the Romantic poets, and

contemporary physics.

The eighth chapter discusses Whitehead's philosophy of bodies. He was a sharp critic of the mind-body problem as it was created by Cartesian metaphysics. Cartesian notions of body are involved in abstractions and, thus, commit Whitehead's Fallacy of Misplaced Concreteness. Whitehead was critical of philosophers for abstracting from concrete reality and then treating their abstractions as if they were concrete. Whitehead also has interesting things to say about societies, types of bodies, and living bodies.

The final chapter develops his views of mentality. I defend a *panexperientialist physicalism* that resists any bifurcation of nature by seeing fundamental actuality as basically dipolar--able to be viewed both physically and mentally. This notion of fundamental reality avoids Kim's dilemma by seeing subjective experience and causal efficacy as inherently related to one another.

These Whiteheadian conclusions stem from a philosophical methodology that takes direct experience seriously. We are not trapped into a dilemma by a set of *a priori* commitments. I therefore recommend a Whiteheadian analysis to my readers.

E. Scott Jones
2 October 2000
Shawnee, OK

# CHAPTER ONE

## PHILOSOPHICAL METHODOLOGY

It is one of my contentions that a satisfactory solution to the mind-body problem can be discovered if the basic philosophical methodology that one espouses is different from that often taken in the philosophy of mind. This chapter is not designed to settle that problem. Instead, here I will sketch in broad outlines what an appropriate philosophical methodology is. In doing so, I will attempt to establish criteria that even Jaegwon Kim can accept. Therefore, there will be methodological questions left unresolved that demonstrate the differences, for example, between Kim and Whitehead.

In doing philosophy, we, as philosophers, ought to concern ourselves with what philosophy is--what task we are about. Of concern to me are questions such as "What is philosophy?," "What is the value of philosophy?," "What is one's philosophical method?," "How does one balance intuition, reason, emotion, science, literature, and the other competing spheres of human individual and cultural life?," "What does one take as fundamental?," "What are we trying to explain?"

In broad outline, I think that philosophy is an attempt to construct a set of beliefs for the individual and the community based upon experience, which set of beliefs is consistent, coherent, applicable to its subject matter, and adequate in interpreting the data. In the following, let me take these points and explicate them, especially showing how they are developed by other philosophers. Finally, I will show how there are still

questions left open, particularly about the nature of experience, that will need to be explored further.

Bertrand Russell develops a view of philosophy as formulating a coherent set of beliefs but functioning as a critic of beliefs. He was quite articulate in developing this view,especially in *The Problems of Philosophy*. Because his answer to the question "What is philosophy?" harmonizes with my own feelings on the subject, let me take a moment to state Russell's methodology and illustrate it with the example of his teaching concerning induction. After his discussion of philosophy as critique aimed at developing a set of beliefs I will explore what norms one ought to follow to succeed at that methodology.

## Constructing a Set of Beliefs: Russell's Methodology

Bertrand Russell thinks that philosophy critically examines the principles of science and daily life, searching for inconsistencies and building a coherent belief structure.[1] Since we are building theories or worldviews or belief structures when we philosophize, they must be built out of something. So, I am concerned with what is basic or fundamental in a theory.

Russell thinks that we should start with our present experience. All our knowledge, he thinks, is derived from our present experiences.[2] We infer various

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[1]Bertrand Russell, The Problems of Philosophy (London: The Home University Library of Modern Knowledge of the Oxford University Press, 1912, 1957), 149.

[2]Ibid., 7.

abstractions from our immediate experience.[3] Famously, he uses the example of the table in his office to present his views. The "real table," he thinks, is unknown to us in our immediate experience--we infer its existence. Our immediate experience is composed of what he calls "sense-data." What we really see is the table from a certain perspective, under a certain light, and with various other environmental disturbances. Let me state that at this time, I am not so much concerned with the details of his theory as I am with his method.

Thus, Russell takes experience, in the form of sense-data, to be the basic and certain elements from which one begins her philosophical enterprise. Let me make one note before proceeding. Russell is concerned, much like Descartes, with finding a certain beginning for our knowledge. Certainty is found in our experience -- in our direct perceptual knowledge. He writes, "Whatever we are acquainted with must be something; we may draw wrong inferences from our acquaintance, but the acquaintance itself cannot be deceptive."[4] He admits that the existence of the physical world, for example, cannot be proven, but he also finds no reason to doubt that there is a physical world.[5] His main reason for rejecting a dream hypothesis or other skeptical scenarios is that common sense rejects such conclusions.[6] He also proposes a pragmatic reason for denying a dream

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[3]Ibid., 11.

[4]Ibid., 119.

[5]Ibid., 17.

[6]Ibid., 20.

hypothesis--our common-sense theory is the simpler, "viewed as a means of accounting for the facts of our own life."[7]

For Russell, then, certainty is not initially a matter of proof. Rather, we can be certain of our immediate experiences, which give us knowledge of our own existence and of the world around us. Though the inferences we draw might be false, the actual experience is indubitable. In fact, Russell writes that "subjective things are the most certain."[8] Philosophy, then, is an attempt to find the best theory to account for our immediate experience.

Our immediate experiences give rise to instinctive beliefs, those that we do not question (unless we are engaged in philosophical skepticism).[9] All our knowledge is built out of these instinctive beliefs, many beliefs becoming connected to these instinctive ones by habit or association.[10] Russell thinks that philosophy must organize our beliefs and analyze them. He writes, "Philosophy should show us the hierarchy of our instinctive beliefs, beginning with those we hold most strongly, and presenting each as much isolated and as free from irrelevant additions as possible."[11] The final goal of the method, he thinks, is to "form a harmonious system."

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[7]Ibid., 22-3.

[8]Ibid., 18.

[9]Ibid., 24.

[10]Ibid., 25.

[11]Ibid.

For example, consider the principle of induction. Russell claims that no appeal to experience can disprove the principle. Reality often fails to conform to our expectations. One might take these instances as counterexpamles, though Russell thinks that that would be a mistake. That we do fail at times does not diminish the probability of truth with which the inductive principle is concerned. At the same time, however, no appeal to experience can prove the principle because we would clearly be begging the question.[12] Are we to deduce the principle, then, from something more certain? Russell thinks that this is impossible. The principle of induction cannot be derived from some further, self-evident principle.[13]

In effect, the Russellian analysis of induction is very similar to Hume's. He admits the limitations and uncertainty of induction. Yet, he also admits the practical self-evidence of induction. What we see is the Russellian method at work. A particular philosophical question arises, so we turn to our immediate experience to see if it can be proved or disproved. The principle of induction, however, can be neither proved nor disproved. We could be a skeptic, then, and reject the principle of induction. However, Russell, like Hume, warns that we would be denying an indispensible element in our experience. We may not be able to appeal to experience without begging the question, but we can also see that we take great advantage of the principle of induction in interpreting our experiences. Russell seems to be saying that common-sense tells us that the principle

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[12]Ibid., 68.

[13]Ibid., 112.

of induction has as much certainty as we are going to get.

Russell's theory of descriptions serves as a good example of another aspect of Russell's method. The theory of descriptions is purely philosophical and clearly fits Russell's view that philosophy involves certain intrinsic goods with no practical benefits to the individual or society. Meinong's view that statements such as "The present king of France has a beard" refer to real objects. Russell's own work in *Principles of Mathematics* had asserted that all objects of discourse have some being. This view was clearly wrong and entailed a position like Meinong's. Motivated to explain how we can talk and think about unreal propositions, Russell developed his theory of descriptions. Descriptions do not describe an object but are incomplete symbols that are interpreted as involving propositional functions and variables. For example, "the author of *Waverly*" does not directly describe an individual, namely Sir Walter Scott. Rather, the description, as applied to Scott, is true as long as the following are not true: 1) *Waverly* was never written; 2) a group of people wrote the book; or 3) the author of *Waverly* was not Scott. Descriptions, then, refer to propositional contexts and not to entities. As I said, this theory exemplifies how a rather abstract issue, with no apparent practical application or appeal to sensory input, can motivate a philosopher.[14]

Self-evidence, Russell writes, is a matter of degree. Some things have more

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[14]Morris Weitz, "Analysis, Philosophical," in The Encyclopedia of Philosophy Volume One, ed. by Paul Edwards (New York: The Macmillan Company and The Free Press, 1967), 98-9.

certainty for us than other things. He thinks that the truths of perception and the principles of logic are most fundamental--they have the clearest sense of self-evidence. Truths of immediate memory come closely second. The principle of induction, though certain, is less so than principles such as the law of non-contradiction. Memories are evident, but become less so as they become "remoter and fainter." The laws of logic and mathematics become less evident as they become more complicated. Finally, some judgements of ethical or aesthetic value have self-evidence.[15]

Given this hierarchy, our beliefs and general philosophical issues must be examined in an attempt to build a coherent system. He writes, "A body of individually probable opinions, if they are mutually coherent, become more probable than any one of them would be individually."[16] In a sense, this method is used by both theology and science. Apparently counter-intuitive claims are made--the doctrine of the trinity, quantum indeterminacy--but are accepted when it is shown how they best explain the data and can fit into a coherent system of beliefs.

For Russell, then, a philosophical theory must be supportable by the data--our immediate experience and the instinctive beliefs derived from it--and must fit within a coherent body of opinions. Because of this method, we may not be able to answer all the questions of metaphysics.[17] What are we to do, then?

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[15]Ibid., 117.

[16]Ibid., 140.

[17]Ibid., 141.

He writes that even if philosophy cannot answer all of the questions that we might want answered, it has the power of asking the questions that "increase the interest of the world, and show the strangeness and wonder lying just below the surface even in the commonest things of daily life."[18]

Russell himself raises the question of the value of philosophy. What, one might wonder, does it contribute to those who do not study philosophy? He gives a puzzling answer. He thinks that it affects others indirectly by affecting the lives of those who study it. He thinks that the value of philosophy must be sought in the effect it has on those who study it.[19]

I do not find this answer very satisfying. Yes, I think that philosophy has a great deal of value in the effect it has on its practitioners. However, I think he too easily dismisses the effects that philosophical work and philosophical thought can directly have on society.[20] I think one can reject this puzzling claim of Russell's and still be impressed with how he answers the question.

He also says that one value of philosophy is in its uncertainty.[21] Why? Because

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[18]Ibid., 16.

[19]Ibid., 153.

[20]In the History he thinks that philosophy and culture are intimately connected. I think that not only do the lives of the great thinkers affect civilization, but their works and ideas have direct influence as well.

[21]Ibid., 156.

philosophy "is able to suggest many possibilities which enlarge our thoughts and free them from the tyranny of custom. . . . it keeps alive our sense of wonder by showing familiar things in an unfamiliar aspect."[22] So, the value of philosophy is in the journey. He rightly points out that when philosophers *answer* questions (in the sense of providing some largely stable solution to basic problems), then those questions become the subject of a science.[23] One example he cites is the question of the nature of the heavens, which is now covered by the field of astronomy. The fact that philosophy keeps the largely unresolved issues also means that it remains the quest of exploring the speculative questions. Philosophy frees us from our instinctive beliefs and, through contemplation, opens our life to new joys and new ideas.[24] Here lies philosophy's greatest value:

> Thus contemplation enlarges not only the objects of our thoughts, but also the objects of our actions and our affections: it makes us citizens of the universe, not only of one walled city at war with all the rest. In this citizenship of the universe consists man's true freedom, and his liberation from the thaldrom of narrow hopes and fears.[25]

I particularly appreciate this picture of the aim of philosophy. It insists that the philosophy in which we are engaged should matter, that it should do something for the student and for civilization as a whole. This liberation occurs by developing for the individual and the community a set of beliefs that is coherent and supported by the data of

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[22]Ibid., 157.

[23]Ibid., 155.

[24]Ibid., 157-8.

[25]Ibid., 161.

our experience.

Russell presents us a basic model for what occurs in forming philosophical theories and the basic criteria that are applied to them. Philosophy is to raise us from naive beliefs by a method of criticism. In order to understand this critical role more carefully, I propose that there are four standards to philosophical theorizing: consistency, coherence, applicability, and adequacy. The four norms are nicely developed by University of Georgia professor Frederick Ferre.[26]

## Consistency, Coherence, Applicability, and Adequacy

Ferre characterizes theory-making as follows:

> Making a theory is a kind of thinking. As such, it is an activity of beings endowed with mental powers of memory and imagination sufficient to form concepts--which rise at first out of recurrent features recognized within the jumble of immediate experience--and to manipulate them so as to interpret some subject identified as problematic.[27]

Similar to Russell, Ferre writes that philosophical theories, particularly metaphysical theories, arise to account for some part of our experience. As such, they draw from the data presented in experience and are an interpretation of experience.

Theories do have to meet some criteria. Ferre lists four that he thinks everyone will agree are the basic epistemic norms of rational thought. He writes, ". . . what

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[26]The criteria are originally Whitehead's,but are explicated in detail by Ferre.

[27]Frederick Ferre, Being and Value: Toward a Constructive Postmodern Metaphysics (Albany: State University of New York Press, 1996), 2.

'thinking' could be, without incorporating those four basic epistemic norms, baffles me."[28] He does admit that he does not want to be dogmatic about these four particular criteria, that they are open to revision or new proposals. The four criteria are consistency, coherence, applicability, and adequacy.

Consistency, he defines as "the capacity to mean something rather than nothing."[29] The minimal standard a theory must pass is not advocating a contradiction. For example, a theory should not call an object "red" and "not-red" in the same respects and at the same time. Such a theory cancels itself out and is meaningless. He calls consistency a "negative condition" that must be supplemented by a positive condition that is more demanding.

This positive condition he labels "coherence." A coherent theory is one where "the conceptual elements of our theory must positively hang together so that we can move smoothly without gaps from one element to another."[30] A coherent theory interprets a problem and provides a sense of understanding. Though Ferre does not mention it, I assume that Ockham's insistence on parsimony would fall within the characterization of coherence.

These two criteria he labels as "internal," because they concern the conceptual relations among the components of a theory. The other two standards are external

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[28]Ibid., 15.

[29]Ibid., 2.

[30]Ibid.

because they are concerned with the outward relations of the theory to the subject matter.[31] The first of these is applicability. Applicability is fundamental but minimal, according to Ferre. He simply means that a theory should not be used to explain something it is not suited to explain. He uses the following example. One would not use a theory about the refraction of light to discuss divorce rates among children of clergy. Applicability, though a simple test, is highly important.[32]

I take the criterion of applicability to be broader than Ferre does. He says that it is minimal, while I think it might be the most maximal of the four. I do agree that the minimal requirment he is insisting on is an appropriate one for philosophical theories. However, I want to go farther and say that the better theory will be one that can be applied to a greater range of our life experiences. By this statement, I do not mean that it must be adequate in interpreting the data, which is the next point. No, I think that philosophical theories are best that have an application to life as it is lived. The implications are clearest in ethical and political theory, though my own view is that these rest upon metaphysical and epistemological views that themselves might apply to life in varied ways. On this point of difference with Ferre I reveal the influence of William James on my own thinking.

According to Ferre, the more demanding external condition is adequacy, which calls for evidential completeness. On the internal side, coherence aims for no gaps in a

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[31]Ibid.

[32]Ibid., 3.

theory. On the external side, adequacy aims for no gaps in the evidence which the theory is designed to interpret. He does admit that adequacy is an ideal that no theory can completely meet, but for which every theory ought to aim.[33] Complete coherence is also an ideal. We judge theories as better that are more coherent and more adequate.[34]

Interestingly, the external and the internal requirements are in tension. One is more likely to build a coherent theory if one dismisses some of the evidence. Also, if one takes in all the evidence available, a theory might be adequate, but could miss coherency. Ferre illustrates by using the example of a homicide investigation. If the detectives eliminate some of the evidence, they may be able to develop a strong case against the suspect. The standard of adequacy, and justice too, would resist such a development. The police could also err by collecting all data with no standard of relevance. Thus, they could end up trying to explain phenomena that have no bearing on the actual case.[35] Of course, the task of finding only and all the relevant data is a difficult task. I am reminded of Sherlock Holmes, and, in particular, the strange case of the dog *not* barking in the night.

Ferre uses one further example to demonstrate how his criteria are normal standards of human theorizing. Say you meet someone for the first time and are trying to figure out what type of person she is. You acquire a small amount of evidence about the person, but the evidence is varied. So, you place more importance on certain aspects than

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[33]Ibid., 9.

[34]Ibid., 3.

[35]Ibid., 3.

on others and attempt to develop a coherent and consistent view of the person. Clearly, you are unable to fashion any type of complete theory of the person. It would be wrong to consider your theory as complete. Over time, new evidence might challenge your theory. In order to have a better view of the person, you would have to incorporate these new data into your structure, even if your theory became less coherent than the simple one you may have originally developed.[36]

These examples illustrate the role that these criteria play in the formulation of theories. Ferre considers these standards important in everyday theorizing and, even more so, in philosophy. Taking philosophy, as Russell does, as the enterprise of constructing a set of beliefs for interpreting the world, these criteria of Ferre's do seem to be the appropriate standards. These epistemic norms seem to be fundamental. Any attempt to prove that these ought to be our epistemic norms would involve use of these standards.

Of course, there could still be questions as to what counts as coherence or adequacy. For example, an empiricist will have a different idea as to what are the data of which the theory must take account than a rationalist would. Questions about what data count as evidence in theorizing are methodological and metaphysical. Russell and Ferre, as empiricists, both take experience to be fundamental, as does Kim.

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[36]Ibid., 3-4.

## Kim's Methodology

Jaegwon Kim does not explicitly propose a philosophical methodology. Instead, one has to look for methodological claims implied by his various ideas. Quickly, one realizes that Kim intends to develop a theory that accounts for the facts, and, though he does not explicitly discuss coherency and consistency, it is also obvious that these are among his norms.

As an example of his reasoning, I turn to the introductory chapter of *Philosophy of Mind*. Except for a few notable exceptions, he says that most theorists are committed to the following three principles:

> Principle I: Mind-Body Supervenience: "The mental supervenes on the physical in that any two things (objects, events, organisms, persons, etc.) exactly alike in all physical properties cannot differ in respect of mental properties. That is, physical indiscernibility entails psychological indiscernibility."[37]
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> Principle II: The Anti-Cartesian Principle: "There can be no purely mental beings (for example, Cartesian souls). That is, nothing can have a mental property without having some physical property and hence without being a physical thing."[38]
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> Principle III: Mind-Body Dependence: "What mental properties a given thing has depends on, and is determined by, what physical properties it has. That is to say, the psychological character of a thing is wholly determined by its physical character."[39]

It is not important at this time to explain or analyze these principles. What I want to demonstrate is how they exemplify his methodology.

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[37]Jaegwon Kim, Philosophy of Mind (Boulder, CO: Westview Press, 1996), 10.

[38]Ibid., 11.

[39]Ibid.

After presenting these principles he writes:

> . . . the chief aim of constructing theories in the philosophy of mind is often taken to be the formulation of a theory about the nature of mental properties that would explain why these principles hold as well as explaining and making sense of certain facts about mentality and its relationship to the physical.[40]

This aim implies a methodology.

We can learn a few things about his method. First, a theory must coherently explain facts about mentality, in particular the Three Principles listed above. Though he does not use the term coherence, it is implied by what he does say and, also, by the rest of the text as he develops a theory of the mental that does cohere with these principles presented in the introduction. I think we can safely assume that consistency, the weaker side of coherency, is also one of his standards.

Also notice that the theory must be applicable to the subject matter--it is a theory about mentality used to explain the mental. Further, it must also be adequate. The theory needs to account for the evidence that supports these three principles and, also, the other facts about mentality, such as phenomenal experiences. In fact, at the end of the text, he concedes that no adequate theory of the mind is forthcoming, in that whatever theory one adopts, one leaves out an important piece of the evidence--in this case, either subjectivity or the causal effectiveness of the mental.[41]

The facts that our theory needs to account for in order to be adequate come from

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[40]Ibid., 13.

[41]Ibid., 237.

ordinary experience and from science.[42] Kim holds that philosophy must take science seriously as our best knowledge about the world.[43] Like Russell, Kim considers science to be an important source for philosophical data.

While science is an important source of knowledge, according to Kim, he seems to have some questions about metaphysics, particularly ontology. In the preface to *Supervenience and Mind* he writes:

> However, I am now inclined to think that ontological schemes are by and large optional, and that the main considerations that should govern choice of an ontology are those of utility, simplicity, elegance, and the like. Concerning such questions as whether there 'really are' events (over and beyond substances and their properties), whether substances are 'ontologically prior to' events or vice versa, what the 'metaphysical nature' of events is, along with many other similar questions about facts, properties, continuants, time-slices, and so forth, it just seems wrong-headed to think that there are 'true' answers, answers that are true because they correctly depict some pre-existing metaphysical order of the world. I think that the heart of ontological inquiry lies in construction rather than description. That is, the primary job of ontology should be to work out and purvey ontological options, alternative schemes that will suit our varied activities and aims in science and philosophy. . . . I should add, though, that I do not hold this view about metaphysics in general, or even about all ontological issues."[44]

Kim admits that there are issues about which he is not sure what position to take. That acknowledged, I am still puzzled by the quoted passage. Which metaphysical positions describe truth, and which ones construct a theory for utility?

Despite the confusion, there are a few things we learn about Kim' methodology

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[42]Ibid., 12.

[43]Kim, Supervenience and Mind: Selected Philosophical Essays (Cambridge: Cambridge University Press, 1993), xv.

[44]Ibid., ix-x.

from this passage. He values a choice among theories, and that choice is governed by a set of values that includes utility, simplicity, and elegance. These criteria seem to fit into the four we have already established. A theory needs to be useful in interpreting reality, or, otherwise, adequate to the data. The explanation given also should be coherent and consistent without any gaps. There is, surely, some aesthetic value to that idea that Kim expresses here as elegance. And, presumably, when trying to fashion a theory that interprets and explains the relevant data, we are searching for the best theory, which is often the simplest. As I said above, I take parsimony to be one element of the coherence criterion (and one of the more ideal aspects as well).

Finally, my paper is itself an exercise in Kim's idea that ontology ought to explore various options. In essence, he establishes that we should choose the theory that best meets the goals of philosophy and science. My paper will present what it thinks is the best choice that meets these very criteria.

## Remaining Questions

In broad outline, I have sketched a philosophical methodology that holds philosophy to be an attempt to construct a set of beliefs for the individual and the community based upon experience, which set of beliefs is consistent, coherent, applicable to its subject matter, and adequate in interpreting the data. Russell's philosophy is an example of such a view in action and demonstrates the criteria advocated by Ferre. Kim's philosophy also seems to meet these broad guidelines, though with some questions left

over. For example, what role does science play? Russell has less faith in science than Kim does, and we will need to examine Kim's reliance on science, especially since he calls it our best knowledge of the world. One outcome of his scientific views, is his belief in a physicalism defined by the three principles listed above.

There is one very important question that remains. All three philosophers talk about philosophy as interpreting and explaining experience. Russell thinks that we should start with our present experience, from which all our knowledge is derived. We, then, infer various abstractions from these immediate experiences. Ferre writes that metaphysics "should and must" rest upon an empirical standard of applicability.[45] He says that there is no alternative, that even "rationalist" philosophers have taken experience as a starting point, even if they considered it a faulty apparatus or merely Seeming and not Truth, as Parmenides does.[46] Kim is also an empiricist and in the lineage of classical empiricism. This particular version of empiricism invites criticism that will be worked out in Chapters Five and Six.

The word "experience" can be used in such a variety of contexts. Even "empiricism" has meant different things to different people. For example, Hume and James clearly do not view the nature of experience in the same way. James holds that the relations between things are experienceable. Hume argues that the relations are supplied by the habit of the human perceiver. We must keep in mind that there are disagreements

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[45]Ferre, 7.

[46]Ibid., 8.

about the nature of experience and that "the appeal to experience is always an appeal to some particular understanding or interpretation of experience."[47]

One question that we still need to address is "What is the nature of experience?" Herein lies a fundamental difference between Kim and Whitehead. The latter tends toward the radical empiricism of James, while the former leans more toward the classical empiricism of Hume. Asked, "What is the nature of experience?", we have a metaphysical question. However, approached as "What counts as evidence?", it is a methodological concern. For empiricists, both questions expose fundamental aspects of a person's theory. For any adequate metaphysical theory, including one about the relationship between mind and body, we will have to answer these important and fundamental questions and judge the answers within the broad methodological outlines sketched in this chapter.

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[47]Nancy Frankenberry, Religion and Radical Empiricism (Albany: State University of New York Press, 1987), 38.

# CHAPTER TWO

## KIM'S POSITION

The main goal of Kim's *Supervenience and Mind* is to debunk *the* popular position in the philosophy of mind--nonreductive physicalism. Kim contends that a physicalist cannot avoid reductionism, if she wants to solve the mind-body problem. He thinks that the physicalist has three choices--reductionism, eliminativism, or rejecting physicalism and becoming a dualist.[1] Kim's approach is to set out the basic theses of the nonreductive physicalist and then demonstrate the implications. The implications force a dilemma--either you save the subjectivity of consciousness *or* mental causation, but not both.

We have a choice, he says. One, we can save mental causation by embracing the realization model of the mental to the physical. As this is finally worked out in his later book *Mind in a Physical World*, intentional mental properties are seen as functional properties and are then reduced, via a revised sense of reduction, to the physical. Or, we can insist on the distinctiveness of the mental, especially for qualia, which leads to epiphenomenalism, and thereby surrender the causal powers of the mind.[2] Should one think either side is attractive, he goes on:

> If you choose the former, you may lose what makes the mental distinctively mental; and what good is it, one might ask, if you save mental causation but end up losing mentality in the process? (The Vietnam metaphor of saving a village by destroying it comes to mind.) If you choose the latter, again you may lose the

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[1]Jaegwon Kim, Supervenience and Mind: Selected Philosophical Essays (Cambridge: CambridgeUniversity Press, 1993), 267.

[2]Ibid, 366.

> mental, for what good is something that is causally impotent? Why should we bother to save belief and desire, or qualia, if their presence or absence makes no difference to anything else and we can't use them to explain anything? Being real and having causal powers go hand in hand. We therefore seem to be up against a dead end. Perhaps, that is what's really intractable about the problem of the mind.[3]

What is it that is distinctive about the mental that we do not want to lose? Kim is a *mental realist*. Mental realism commits him to the following, which stand as reasons for wanting to save the distinctiveness of the mental:

1) Human agency. He holds that our beliefs, desires, etc., have causal effects in the world. Human agency is the means by which we live in the world.

2) Human knowledge. Our knowledge is based upon causal relations via perception with the outside world. Also, memory is an intricate causal process of interacting experiences. And reasoning is a matter of causally inducing or deducing additional knowledge from our current store of knowledge.

3) Psychology as a science. If psychology is going to be a meaningful science, then psychological states needs to have some causal efficacy.[4]

The first two definitely seem to be broad human concerns. The third is not as broad a concern, but it is definitely Kim's and would be shared by many physicalists. Let me now take the time carefully to sketch how he arrives at the dilemma introduced above.

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[3]Ibid., 367.

[4]Kim, Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation (Cambridge, MA: The MIT Press, 1998), 31.

## Presuppositions of Nonreductive Physicalism

According to Kim, all physicalists share three basic premises. They are:

> **Mind-Body Supervenience**: "The mental supervenes on the physical in that any two things (objects, events, organisms, persons, etc.) exactly alike in all physical properties cannot differ in respect of mental properties. That is, physical indiscernibility entails psychological indiscernibility."[5]
>
> **The Anti-Cartesian Principle**: "There can be no purely mental beings (for example, Cartesian souls). That is, nothing can have a mental property without having some physical property and hence without being a physical thing."[6]
>
> **Mind-Body Dependence**: "What mental properties a given thing has depends on, and is determined by, what physical properties it has. That is to say, the psychological character of a thing is wholly determined by it physical character."[7]

Different types of physicalists might interpret these premises differently. For instance, the supervenience thesis leaves open the questions of whether or not the mental is reduced and, if reduced, how it is reduced. The main implication of that thesis is that if two physical states are indistinguishable, then the mental properties that supervene on them are also indistinguishable. The final thesis, that of dependency, emphasizes that the physical has ontological priority over the mental, so the mental ought to be explainable in terms of the physical. Kim explains that the difference between the Supervenience and

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[5]Kim, Philosophy of Mind (Boulder, CO: Westview Press, 1996), 10.

[6]Ibid., 11.

[7]Ibid.

Dependence Theses is that the latter explicitly claims that the physical has ontological priority and that physical properties will be used to explain the mental. The Dependence Thesis is crucial to physicalism. It will become quite important in the discussion of Donald Davidson's anomalous monism and Kim's criticisms of it--Kim believes that Davidson fails to account for dependence. Kim labels the basic theory following from these three premises "minimal physicalism," and says that the major task in philosophy of mind is to explain mental properties within this framework.

Nonreductive physicalism is a specific physicalist approach to the philosophy of mind. It attempts to solve the mind-body problem by accepting the ontological priority of the physical while taking account of mental properties, explaining them in terms of some form of supervenience that is not a reduction. Kim identifies four premises of non-reductive physicalism. These are:

> Thesis One: (Physical Monism): "All concrete particulars are physical."
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> Thesis Two: (Antireductionism): " Mental properties are not reducible to physical properties."
>
> Thesis Three: (The Physical Realization Thesis): "All mental properties are physically realized; that is, whenever an organism or system instantiates a mental property *M*, it has some physical property *P* such that *P* realizes *M* in organisms of its kind."
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> Thesis Four: (Mental Realism): "Mental properties are real properties of objects and events; they are not merely useful aids in making predictions or fictitious manners of speech."[8]

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[8]Kim, SM, 44.

Because nonreductive physicalists are *physicalists*, they are committed to theses one and three.[9] These two theses rule out both substance and property dualisms. Because nonreductive physicalists aren't eliminativists and want to maintain that mental experiences are authentic, they are committed to theses two and four. However, these two disparate commitments create a strong tension. It is exactly these two commitments that cannot be met. Once one constructs the picture of mind-body that results from these four theses, one can see the difficulty.

According to Kim, these four theses lead to the following picture of mental causation. There is some mental property M that is realized by some physical state P. M is causally efficacious for P*. So, if P is sufficient for M, then P is sufficient for P*. It is obvious that this picture of mental causation creates problems for the nonreductive physicalist that will be explored in the next section. Let me take a moment, first, to demonstrate why she is committed to this picture of mental causation.

Alexander's dictum plays a crucial role in understanding nonreductive physicalism. Arguing againt epiphenomenalism, Samuel Alexander penned his famous dictum that to be real is to have causal powers (the view that actuality must be causally efficacious is as ancient as Aristotle at least, but the dictum has taken on Alexander's name). The nonreductive physicalists are also avoiding epiphenomenalism, and in doing so, they make

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[9]It has been pointed out to me that surely the nonreductive physicalist would want to clarify that all concrete particulars are micro-physical and that mental properties are micro-physically realized. I do not believe that this change affects the substance or impact of Kim's arguments.

causal claims for the mental. Thesis Four (mental realism) asserts that mentality has an actual role to play in the world. What the nonreductive physicalists are seeking is mentality that is distinctive, efficacious, and yet dependent upon the physical.

Now, Kim considers what causal powers a particular M might have. Let us say that M is the cause of M*, another mental event. Kim wants to demonstrate that nonreductive physicalism is committed to downward causation. Here is how. Take M*. According to Thesis Three, it must be realized by a particular physical event, let us call it P*. Kim uses "realization" as a neutral term at this point in the argument. His discussion of various theories of supervenience will be treated below. I take "realization" to mean that this particular M would not be actual without the actualization of this particular P. Returning to our example, M* is actualized only upon the actualization of P*.

Let us now ask the question, why is this particular instance of M* actual? There are two answers--M and P*. We have claimed that M is a sufficient efficient cause for M*. Yet, we have also claimed that P* is sufficient to explain the actualization of M* independent of any causal history. P* could be responsible for M*'s actualization even if there were no antecendent causal chain for either event. We seem to be trapped into choosing either overdetermination or epiphenomenalism for the mental properties. However, it only seems that way. Kim rightly concludes that the best way out of the dilemma is to claim that M is the efficient cause of P*. Thereby, M is still the cause of M*, but indirectly by performing the role of efficient cause of P*. Thus, downward causation seems to be the best way to understand mental causation for the nonreductive

physicalist.

But, we now have a further problem. M is itself, according to Thesis Three, realized by some physical property--let's call it P. Therefore, P is sufficient for M. If P is sufficient for M, then P becomes efficient for P* and M*.[10]

## The Difficulties of Nonreductive Physicalism

Perceptively, Kim asks why we shouldn't take P as the cause of P*.[11] Indeed, why shouldn't we on this picture? There are two problems for the nonreductive physicalist. If she takes both M and P to be a cause of P*, then P* is causally overdetermined. M cannot be a part of P, because they are distinct according to Thesis Four. Since P is sufficient for P*, then there is no need for M. Is M epiphenomenal, then? Kim labels this problem the *Exclusion Problem*, for there needs to be a reason for not excluding mental properties if one is committed to mental causal efficacy. The struggle for the nonreductive physicalist is to find a supervenience relation that meets the two criteria of the Mind-Body Dependence Thesis (MBD) and mental realism, which includes mental causal efficacy.

If the nonreductive physicalist wants to avoid causal overdetermination and epiphenomenalism, then she can claim that M has some causal powers that P does not have. However, in making such a claim the nonreductive physicalist violates one of the

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[10]To see Kim's discussion of these points see Ibid., 344-57.

[11]Ibid., 353-54.

three premises of all physicalists--the Mind-Body Dependence Thesis. It claims that any causal property of M would be dependent upon some physical property of P. Thus, any causal property possessed by M that is not dependent upon some physical property would commit one to denying the causal closure of the physical. In other words, there would be causes of physical events that are not themselves physical or dependent upon physical properties. This implication is troubling because one would have to admit that "there can in principle be no complete physical theory of physical phenomena."[12] At some point physics would fail to be "pure" and would have to invoke "vital principles, entelechies, psychic energies, elan vital, or whatnot."[13] Any physicalist should be troubled by the threat that a complete physical theory cannot,in principle, be formulated.

Kim concludes that the nonreductivist would then seem compelled to identify the causal powers of the mental with the powers of the physical states in order to avoid overdetermination and the loss of closure. The result that Kim sees is that reduction is what is left. If P is a sufficient cause for P* and M provides no causal efficacy not dependent upon some realization in P, then the simplest solution appears to be that of reducing M to P (note that epiphenomenalism remains a choice but is not the simplest).

The final essay of *Supervenience and Mind* discusses two possible avenues of escape. First of all, Kim considers whether supervenience can save the nonreductivist. He concludes that it cannot. If M supervenes on P, P is still sufficient for M and, thus, is

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[12]Ibid., 356.

[13]Ibid.

sufficient for P*. So, even if M is a distinct property from P, it is not clear why we would need a "supervenient cause" (M) to explain P*. Supervenience doesn't get us anywhere that we haven't already been.[14]

He also discusses a further possible solution. M is multiply realizable, which means that M is realized by P or P# or P@ or P! or P+, or any chain of P's. Each one of these physical states has its own causal powers. In any one instant M's causal efficacy can be explained by a given P, but overall, M's causal power is not identified with any particular P. Kim thinks that this realization can explain how mental properties are causally efficacious, though I'm not sure why, since some P or other is still doing the work.[15] What results is a token-token reduction (what Donald Davidson supports, as I will examine shortly).

Kim says that M is saved because it is disjunctively identified with its list of physical states, rather than being identified with any one state. We may not know what physical state is being instantiated, so we can simply discuss the causal powers of M.[16] He says that this allows us to discuss mental powers as something distinct, because there is no type-type reduction. As he points out earlier in the text, multiple-realizability does not refute reduction. It may be true that pain is not reducible to C-fiber firing, but every specific instance of pain is reducible to some specific physical state (token-token).

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[14]Ibid., 361. We will examine supervenience in more detail later in this chapter.

[15]Ibid., 363.

[16]Ibid., 364-65.

Reduction, then, is relativized.[17] Mental terms might be intelligible, but particular mental events can be reduced to particular physical events.

Let me reiterate my point that just because the term becomes intelligible, that does not mean that mental properties are causally efficacious. In each instance, a particular mental event is reduced to a particular physical event, even if the particular physical event on which the mental event depends varies from instant to instant. Plus, what is it that makes each pain event a pain? What do all of them have in common?

Kim does realize that the nonreductivist will not be happy with his conclusions, largely because subjectivity, consciousness, qualia are not explained by the image of mentality that he has presented. Even if the mental efficacy of intentional states or propositional attitudes can be explained, the mental efficacy of these non-intentional mental states cannot. It is at this point in his argument that Kim reaches the conclusion discussed above. If we are to save qualia, then we cannot have causal efficacy (for the qualia, at least). If we save causal efficacy for the mental, then we lose qualia by making them epiphenomenal. It seems that intentional states might be identified as functional properties and then reduced in this token-token reduction. However, conscious states such as qualia and personal subjectivity do not seem to be functionalizable or reducible.

If we choose to maintain the causal efficacy of the mental, then we become reductivists, since the various nonreductive options fail. If we choose to maintain the

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[17]Ibid., 315. Of course, there is still the important question of what these various states have in common with one another.

distinctiveness of the mental, Kim asserts that we must hold to some form of antiphysicalist dualism,[18] which would probably include some variety of epiphenomenalism. Kim writes, "Nonreductive physicalism, like Cartesianism, founders on the rocks of mental causation."[19]

Kim says that nonreductive physicalism has become popular for two reasons. One is the multiple realizability that Putnam presented. As we've already seen, Kim simply asserts that reduction becomes relative, that multiple realizability does not deny that particular mental states can be reduced to particular physical states.

The other view that has led to the popularity of nonreductive physicalism is Davidson's Anomalism of the Mental.[20] Kim is claiming that mental causation can be saved only with a reductivist position on the philosophy of mind. It is precisely this kind of position that Davidson attacks. Kim asserts that for his overall argument to be successful, he will have to show some problem with Davidson's work. Throughout *Supervenience and Mind*, Kim turns to Davidson's arguments at various times in order to take up arguments against them. It is not completely clear what role a refutation of Davidson's anomalous monism plays in the support for Kim's thesis. Davidson is only dealing explicitly with propositional attitudes. Can Davidson's views about the mental be broadened to include conscious states? I think that they can and that Davidson sees his

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[18]Ibid, 267.

[19]Ibid., 339.

[20]Ibid., 267.

view in this light, despite some commentators that disagree with me. In what follows I will defend this connection. Regardless of whether this connection can be demonstrated, there is still a strong disagreement between Kim and Davidson. Kim has been an important and vocal critic of anomolous monism because he believes that for propositional attitudes to have any causal efficacy, they must be reduced to the physical. Because this view is the solution offered by one horn of Kim's dilemma, his arguments against Davidson are important for the overall success of his views in the philosophy of mind.

## Davidson's Anomalous Monism

Kim claims that Davidson's anomalous monism[21] "fails to do full justice to psychophysical causation" because the mental has no role to play *qua mental*.[22] He writes that he is ambivalent about Davidson's argument and hasn't come across a fully persuasive refutation of it.[23]

In chapter eleven of *Supervenience and Mind*, entitled "Psychophysical laws," Kim develops Davidson's arguments as they appear in "Mental Events," "Psychology as Philosophy," and "The Material Mind." In this chapter, he presents what he takes Davidson's precise moves to be. He characterizes Davidson's basic point to be:

> the mental realm is characterized by certain essential features which would be seriously compromised if there were connections as strong as laws, with their

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[21]*Anomalous* in that it denies lawlike relations between mental states and between mental and physical states and a *monism* because all events are physical events.

[22]Ibid., 106.

[23]Ibid., xiii.

modal and subjunctive force, linking it with the physical realm, which has its own distinctive features incompatible with those of the mental.[24]

Though Kim can accept that there is something distinct between the mental and physical, he believes that if mental causation is to be saved, this distinction cannot separate the mental realm from the physical, leaving the mental no work to do.

## Davidson's Position

In "Mental Events" Davidson defends a view according to which the following three theses are consistent:

> **Principle of Causal Interaction:** "At least some mental events interact causally with physical events."
> **Principle of the Nomological Character of Causality:** "Where there is causality, there must be a law: events related as cause and effect fall under strict deterministic laws."
> **Anomalism of the Mental:** "There are no strict deterministic laws on the basis of which mental events can be predicted and explained."[25]

There is a *prima facie* contradiction between these three theses. How can one defend the first thesis given the conjunction of the second two?

Davidson holds the the mental is nomologically and conceptually irreducible to the physical. Why? Because of certain composite qualities of mentality. Mental states are not governed by strict causal laws. It is impossible, given a set of data about a person's current mental state, to predict future mental states. Davidson subscribes to the holism of the mental, which asserts that the entire mental life of a person is involved in mental

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[24]Ibid., 201.

[25]Donald Davidson, "Mental Events" in Essays on Actions and Events (Oxford: Clarendon Press, 1980), 207.

action. He writes:

> There is no assigning beliefs to a person one by one on the basis of his verbal behavior, his choices, or other local signs no matter how plain and evident, for we make sense of particular beliefs, with preferences, with intentions, hopes, fears, expectations, and the rest. It is not merely, as with the measurement of length, that each case tests a theory and depends upon it, but that the content of a propositional attitude derives from its place in the pattern.[26]

Mentality does not follow strict laws. However, on Davidson's view the physical world does follow strict laws. Because of this inherent incompatibility, the mental cannot be reduced to the physical. Without entering into discussions of the whole host of issues involved in Davidson's complete theory, things such as Nagel-reduction, indeterminacy of translation, externalism, the irreducibility of psychology, etc., I want to characterize the basic points of Davidson's well-known arguments. There are no psychophysical laws because of the stark differences between the mental and the physical. The physical is determined, yet we cannot predict behaviour in the mental.[27] A reduction of the mental to the physical would eliminate our ability to use normative principles of rationality in interpreting the mentality of ourselves and others. We describe the mental as conforming to constituents such as rationality, coherence, and consistency, but physical reality contains no such constituents. There can be no type-type reductions of the mental to the physical. Davidson holds that the anomalism of the mental is known by us *a priori*; thus it is a conceptual impossibility for psychophysical laws to exist.

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[26]Ibid., 221.

[27]See "Philosophy of Psychology," in Essays on Actions and Events, 230.

His further argument for monism goes as follows.

1) Mental events interact causally with physical events.

2) When events are related as cause and effect, they instantiate strict laws.

3) There are no psychophysical laws.

4) If a strict law subsumes the interaction between a mental and physical event, the law is a physical law.

5) If a physical law subsumes two events, then the events are physical.

6) Therefore, mental events are physical events.

Hence, when a mental event is causally efficacious, it is in virtue of that event's being a physical event. The event, therefore, is one that falls under both mental and physical descriptions. Described physically, it is involved in a deterministic system of strict laws. Described mentally, it takes part in the rational holism that is the mental.

Davidson holds to a further view that helps to complicate matters. He was responsible for re-introducing supervenience into discussions in the philosophy of mind. In "Mental Events" he writes,

> Although the position I desribe denies there are psychophysical laws, it is consistent with the view that mental characteristics are in some sense dependent, or supervenient, on physical characteristics. Such supervenience might be taken to mean that there cannot be two events alike in all physical respects but differing in some mental respect, or that an object cannot alter in some mental respect without altering in some physical respect.[28]

Davidson presents this supervenience thesis to explain the dependence of the mental upon

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[28]Davdison, "Mental Events," 214.

the physical that is needed for his monism. I will return to the issue of supervenience shortly.

## Are Conscious States Included?

Before moving on to Kim's discussion, I want to examine the question whether conscious states, such as sensations, qualia, or subjectivity, are included in Davidson's picture of the mental, as it is discussed in anomalous monism. I think that such states are included. To begin with, it seems quite obvious that Davidson is presenting a monism and that that monism is meant to capture aspects of the mental besides propositional attitudes. As J. J. C. Smart wrote, "If Davidson's argument does not touch these occurrent experiences, then if it is taken to be an argument for materialism in general there is a serious lacuna in it."[29] Smart does believe that Davidson means for sensations to be included, since anything that falls under a mental description is included.[30] Brian P. McLaughlin writes that "much of what [Davidson] says about such mental events [propositional attitudes] unquestionably applies to other sorts of mental events as well."[31]

Also, numerous statements of Davidson's make it clear that all aspects of

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[29]J. C. C. Smart, "Davidson's Minimal Materialism," in Essays on Davidson: Actions and Events, ed. by Bruce Vermazen and Merrill B. Hintikka (Oxford: Clarendon Press, 1985), 175.

[30]Smart criticizes Davidson for letting every event fall under a mental description. Davidson is aware of this problem, referring to it himself in "Mental Events." He says that the real difficulty would have been if any known mental event were left out.

[31]Brian P. McLaughlin, "Anomalous Monism and the Irreducibility of the Mental," in Actions and Events: Perspectives on the Philosophy of Donald Davidson, ed. by Ernest LePore and Brian P. McLaughlin, (Oxford: Basil Blackwell, Inc., 1985), 337.

mentality are to be included. For example, the following from "Mental Events":

> Though perception and action provide the most obvious cases where mental and physical events interact causally, I think reasons could be given for the view that *all mental events* ultimately, perhaps through causal relations with other mental events, have causal intercourse with physical events. [emphasis mine][32]

He also discusses pain in making his argument in "The Material Mind,"[33] and in responding to Smart.[34] There he writes that because pain is "inseparable" from beliefs, desires, etc., it falls within his views concerning the mind. Even pain states cannot be "reconciled with the existence of precise correlations . . . with objectively identifiable physical states."[35]

Therefore, it is quite clear that conscious states are to be included in Davidson's anomolous monism. This fact will be helpful in developing Kim's dilemma and in presenting an important criticism of Kim in Chapter Five.

## Kim's Criticisms

Kim asks us to imagine a world of Davidsonian events. All the events are physical. Some of the events are also mental. All of these events are structured according to causal relations expressed as laws. Kim then asks us to consider what role the mental plays in

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[32]Davidson, "Mental Events," 208.

[33]Davidson, "The Material Mind," in EAE, 248.

[34]Davidson, "Reply to J. C. C. Smart," in Essays on Davidson, 246.

[35]Ibid.

such a world. "The answer: None whatever."[36]

Kim's point is that the mental could be randomized over the physical in any possible way and it would have no effect upon the physical events or their causal structure. For example, if there is no law that binds pain with C-fiber firing, then in one person pain could be a C-fiber firing and in another some action in the pituitary gland. Even in a specific person, pain could have different physical bases at different times. These implications are highly troubling, in that they do not coincide with some clear intuitions and scientific data concerning our understanding of physiology. Most importantly, this implication violates the Mind-Body Dependence Thesis, one of the basic criteria of any physicalist theory.

What are we to conclude then? Kim writes:

> On anomalous monism, that an event falls under a given mental kind is a causally irrelevant fact; it is also something that is entirely inexplicable in causal terms. Given all this, it's difficult to see what point there is in recognizing mentality as a feature of the world. I believe that if we push anomalous monism this way, we will find that it is a doctrine virtually indistinguishable from outright eliminativism.[37]

Remember Kim's exclusion problem. If any physical event P is causally sufficient to actualize another physical event P*, then there seems to be no causal role for M to play in actualizing P*. Though Davidson wants to keep mental efficacy, mentality has no efficacy *qua mental*. Remember Kim's commitment to mental realism and its tenet of human agency. That is called into question if every mental event is ontologically reduced

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[36]Kim, SM, 269.

[37]Ibid., 270.

to a physical event (the token-token reduction of Davidson) with the physical event playing the causal role within a strict, deterministic web of laws.

Despite his ontological reduction, Davidson asserts the distinctiveness of the mental. Kim points out that Davidson does not take the eliminativist road that Quine takes. Yet, in doing so, Kim says, Davidson really rejects monism. If the mental is a distinct realm, then Davidson really ends up as a dualist, presumably of the epiphenomenal variety.[38]

Kim's point exposes a crucial flaw in Davidson's position. Davidson has struggled to find a supervenience relation that will work. On one hand, it has to be nonreductive, and, on the other, it must be a dependency relationship.[39] According to Kim, this will fail because psychophysical dependence requires psychophysical laws.[40]

Davidison's introduction of supervenience has invited a great deal of criticism from others. Simon Evnine questions why Davidson invokes the supervenience thesis in the first place. He says that it is a tightening of the dependence between mental and physical--tighter than anomolous monism without supervenience, that is. Davidson's characterization of supervenience has allowed for any physical difference to matter. Evnine's example is that two people can be physically identical except for the length of one eyelash and that that one physical difference would entail that they could be mentally

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[38]Ibid., 214.

[39]Ibid., 276.

[40]Ibid., 72.

different. He writes that in order to make sense of dependence, Davidson would need to specify what properties are relevant (a similar point is made by Harry Lewis).[41] Evnine does not think that Davidson can specify the relevant properties, for to do so would invite psychophysical laws. To say what physical states actualize what mental states would violate anomalism.[42] Davidson has responded to criticisms like these, and I will come to them shortly. But first, I want to survey Kim's work on the topic of supervenience.

## Supervenience

Kim writes:

> Acceptance or rejection of the supervenience of the mental on the physical leads to the most basic division between theories of the mind-body relation: theories that accept psychophysical supervenience are fundamentally materialist, and those that reject it are fundamentally anti-materialist.[43]

One task for Davidson, and any nonreductive physicalist, is to establish a doctrine of supervenience. As Kim has pointed out, Davidson's Anomalous Monism fails to cohere with any theory of supervenience.[44] The problem has been finding a relation that is nonreductive but is also a dependence relation. Supervenience theories, then, fail

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[41]See Harry Lewis, "Is the Mental Supervenient on the Physical?" in Essays on Davidson, 160.

[42]Simon Evnine, Donald Davidson (Stanford: Stanford University Press, 1991), 69-70.

[43]Ibid., 56.

[44]Ibid., xiii.

Davidson as being either too strong or too weak on one of the two criteria--that the supervenience relation must be *nonreductive* and *dependent*.[45]

Though Kim aims this criticism at Davidson, it is clearly directed at all *nonreductive physicalists*. Kim can draw his dilemma about nonreductive physicalism at the end of *Supervenience and Mind* largely because the nonreductive physicalist has failed to develop a nonreductive dependence relation between mind and body.

Supervenience, in relation to mind, is the claim that if any two objects are physically identical, then they must be mentally identical. Or, that there can be no mental difference without a corresponding physical difference. According to Kim, supervenience, as a concept, is part and parcel of a contemporary understanding of the world as a hierarchy of levels.[46] Sub-atomic particles might be fundamental reality, but various levels--macroscopic physicality, values, mentality--are built up out of these fundamental units. These "higher" levels and their properties supervene, then, on the more basic objects and properties.[47]

Three major types of supervenience have been promulgated: weak, strong, and global. Weak supervenience holds that if two objects are physically alike, then they must

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[45]Ibid., 276.

[46]Ibid., 221.

[47]In Supervenience and Mind, Kim identifies the source of the concept of supervenience as lying in the debates over naturalized ethics that were dominant early in this century.

necessarily be alike in all mental respects.[48] Or, to state it more formally:

> *Weak Supervenience*: Necessarily (that is, in every possible world), if any x and y [illegible] are indiscernible in $P$ ('$P$-indiscernible' for short), x and y are $M$-indiscernible.[49]

The difficulty with weak supervenience is that it is world-bound. As Kim demonstrates, it is acceptable under weak supervenience for two possible worlds to be physically indiscernible, but have different mental properties.

Suppose that I almost hit my head on Tuesday while working in the theatre (in fact, it did almost happen). On Tuesday I could have said to someone, "Imagine how much that would have hurt, if I had hit my head." In some way, we make sense of that sentence by postulating a possible world in which I did bang my head.[50] I submit that our ordinary understanding of that sentence is something as follows: there is a possible world in which I did bang my head and that would have caused sharp pain.

Weak supervenience, though, does not allow us to interpret that sentence according to our ordinary understanding. In this world, call it "$w_1$", I possess a number of physical attributes; hitting my head, call it "h", is not one of them. Our ordinary understanding postulates another world, call it "$w_2$." In $w_2$ I possess a number of physical attributes, including h. Therefore, Scott in $w_1$ and Scott in $w_2$ have a physical difference.

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[48]See SM, 57-64.

[49]"Supervenience" in A Companion to the Philosophy of Mind, ed. by Samuel Guttenplan (Cambridge, MA: Blackwell Publishers Inc., 1995), 577.

[50]At this point I do not want to consider various theories of possible worlds, counterparts, haecceities, etc. Hopefully the example will serve my purposes, though.

Weak supervenience allows for worlds with only slight physical differences to differ wildly in the mental realm. For one thing, in $w_2$, banging one's head might not be followed by pain at all, but maybe a sense of elation or a mystical experience of some divinity or a loss of feeling in one's big toe. Any mental difference is possible. There is no law of the type "If x hits x's head, then x is in pain." This implication of weak supervenience violates the Mind-Body Dependence Thesis.

In fact, the outcome of weak supervenience is even worse. In his essay for the Blackwell *Companion to the Philosophy of Mind*, Kim points out three highly troubling implications.[51] Let us examine these.

First, he writes that weak supervenience allows for a world that is physically indiscernible from ours but is lacking in mentality altogether. This implication seems to be like the zombie example that David Chalmers explores.[52] We won't examine his argument now or discuss whether it is possible, I just simply point out the similarity. If supervenience is restricted to a domain, a possible world in this case, then other domains or worlds could be different mentally. This implication of weak supervenience seems to be its refutation as a physicalist theory because the dependence thesis is violated in that mentality does not seem to depend upon physicality if such a world is possible.

Secondly, Kim says that there could be a world P-indiscernible from our own

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[51]Ibid., 577-78.

[52]David Chalmers, The Conscious Mind: In Searchh of a Fundamental Theory (New York: Oxford University Press, 1996), 94-99.

where *everything* was conscious. Though we might enjoy films where objects like candlesticks and tea kettles think and talk, it does violate some of our deepest understandings of the world. I am reminded of Russell's discussion of postulates in *Human Knowledge*. He writes there about many assumptions necessary for living in the world. For example, we assume that there are causal laws. We also assume that the simplest explanation works. This second implication of weak supervenience violates some of these basic intuitions and would entail an ontological complexity far afield of our experience. It is highly counterintuitive to suppose that it is possible for a tea kettle to be conscious (though Chalmers, again, at least considers the possibility that thermostats might be conscious).[53]

Finally, weak supervenience also allows for a world physically indiscernible from our own where unicellular organisms are conscious, but neither humans nor the higher animals are conscious. This option combines some of the counter-intuitive measures of both of the previous examples. This example is clearly implied by the world-bound thesis of weak supervenience. And, once again, it points out that weak supervenience fails as a dependency relation.

Maybe one is willing to "bite the bullet" and accept these consequences. However, for the nonreductive physicalist intent on upholding the dependence of the mental upon the physical, weak supervenience fails. How could mind depend upon the physical if the

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[53]Ibid., 293-97.

mental properties are arbitrary?

Davidson's anomalism makes a claim similar to that of weak supervenience, that there is no law-governed dependence of mental on the physical. However, weak supervenience fails as a monism because there is no dependence relation at all between the mental and the physical. So, Davidson needs something stronger if he wants dependence. Without dependence it is unclear what causal role the mental can play. Either one generates problems of interactionism or becomes an epiphenomenalist.

Global supervenience attempts to account for these difficulties by expanding supervenience over possible worlds. Kim characterizes it as follows:

> (GS) Mental properties globally supervene on physical properties in that worlds that are physically indiscernible are also psychologically indiscernible; in fact, physically indiscernible worlds are one and the same world.[54]

Global supervenience is considered attractive because it does not rely on property-to-property connections. Instead, it is based on connections between sets of properties.[55] It would also rule out those three final, counter-intuitive consequences of weak supervenience. There couldn't be worlds physically similar with vastly different mental properties.

But, how would it fare with the example of my banging my head on Tuesday? It would fail. If there is any physical difference in the world, then there can be any variety of mental differences. In fact, as Kim points out, global supervenience does not even entail

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[54]Kim, PM, 225.

[55]Kim, SM, 85.

weak supervenience.[56] Under global supervenience, two objects could share a physical property, but not share mental properties. So, it is possible that my counterpart who bangs his head in a different world might experience no coinciding mental property or even a mental property that does not exist in this world.

Once again, we do not have dependency. Kim writes:

> Supervenient causation in my sense requires talk of specific mental properties supervening on specific physical base properties, and this is possible only if there are laws correlating psychological properties with physical properties.[57]

Strong supervenience captures this aspect. Strong supervenience is defined as follows:

> *Strong Supervenience*: For any individuals x and y, and any worlds $w_j$ and $w_k$, if x in $w_j$ is *P*-indiscernible from y in $w_k$ (that is, x has in $w_j$ exactly the same properties in *P* that y has in $w_k$), then x in $w_j$ is *M*-indiscernible from y in $w_k$.[58]

Strong supervenience insists that any physically indiscernible individuals anywhere in any possible worlds are also M-indiscernible. Weak and global supervenience fail as dependency relations, where strong supvernience does not.

Under strong supervenience, if any property M supervenes on any property P, then any individual with P has M. But, that statement entails the following:

If any individual has property P, then it necessarily has property M.

This thesis sounds and looks like a psychophysical law. It is these kinds of necessary relations that Davidson was attempting to avoid.

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[56]Ibid., 83.

[57]Ibid., 283.

[58]Kim, "Supervenience," 578.

We see, then, that the model of supervenience that supports the Dependency Thesis also entails psychophysical laws. Psychophysical laws, as Kim writes, would give any nonreductive physicalist pause.[59] Plus, we clearly see why Davidson cannot accept this model. So, for nonreductive physicalism and Davidson's anomalous monism in particular, weak and global supervenience are too weak to ensure dependence and strong supervenience is so strong that it entails necessary relations between the mental and the physical that appear to have nomological necessity.

## Davidson's Responses

Davidson has repeatedly responded to criticisms of his position on supervenience. In a reply to Harry Lewis, he clarifies what he takes "supervenience" to mean:

> All the individual entities that can be distinguished using the supervenient predicate can be distinquished using the subvenient predicates.[60]

He writes that this is an ontological reduction, but not the definitional or conceptual reduction he is arguing against.

Of the three supervenience relations discussed, this characterization of Davidson's, let's call it Davidson-supervenience, comes closest to strong supervenience. First, it does not have the counter-intuitive implications of weak supervenience. Our world, $w_1$, and the world without mentality, $w_2$, differ in their supervenient predicates. According to Davidson's theory of supervenience, then they should differ in their subvenient predicates.

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[59]Kim, SM, 283.

[60]Davidson, "Reply to Harry Lewis," in Essays on Davidson, 242.

However, as we have seen, it is consistent with weak supervenience that $w_1$ and $w_2$ be physically indiscernible. Secondly, Davidson-supervenience is not global supervenience. Global supervenience allows for a world, $w_1$, in which the following is true, If x hits x's head, then x is in pain. But it also allows for a world $w_2$, in which the following is true, If x hits x's head, then x has a mystical experience. Davidson-supervenience rules out this troubling implication of global supervenience. In $w_1$ and $w_2$ the supervenient predicates differ, but the subvenient predicates do not. Only strong supervenience captures the dependence relation of Davidson-supervenience. On strong supervenience when mental states differ, they are accompanied by a difference in the subvenient physical states.

Fortunately, Davidson has produced better arguments in defense of his views on supervenience. In "Thinking Causes" Davidson develops a set of responses to Kim's criticisms. He reasserts that his view is an ontological and not a conceptual reduction. I do not understand how ontological reduction is supposed to help mental causal efficacy. Here he again re-characterizes supervenience:

> A predicate *p* is supervenient on a set of predicates *S* if and only if *p* does not distinguish any entities that cannot be distinguished by *S*.[61]

Yet this formulation expresses the same relation as the formulation above; it is still Davidson-supervenience and is interpreted as a species of strong supervenience, given that strong supervenience is the only one that captures the dependence relation implied by

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[61]Davidson, "Thinking Causes," in Mental Causation, ed. by John Heil and Alfred Mele (Oxford:Clarendon Press, 1993), 4.

Davidson-supervenience.

Davidson replies to Kim's claim that on Davidson's account mental events are not causally efficacious. He says that there are events and that they have causes and effects. There is a class of such events that can be described both physically and mentally. Only under a physical description does an event instantiate a law. "Redescribing an event cannot change what it causes, or change the event's causal efficacy."[62]

Davidson says that supervenience does not entail psychophysical laws because a change in the physical realm does not guarantee a change in the mental realm. The implication is that the supervenient relation is not governed by bi-conditional relations. If there are necessary relations, then they are only conditional. These might be generalizations, but they are not strict, deterministic laws with predictive power. The latter are the type of psychophysical laws ruled out by Davidson.[63] Davidson even refers to these types of generalizations as "less than strict laws."[64] He goes on:

> In fact I have repeatedly said that if you want to call certain undeniably important regularities laws--the familiar regularities that link the mental with the mental (as formulated, for example in decision theory) or the mental with the physical--I have no objection; I merely say these are not, and cannot be reduced to, *strict* laws.[65] [emphasis in original]

Davidson then asserts that strict laws, allowing for no exceptions, are only found in "ideal

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[62]Ibid., 6-7.

[63]Ibid., 8.

[64]Ibid., 9.

[65]Ibid.

physics."[66] Admitting non-strict laws doesn't bother Davidson, because strict laws are what is needed for strict reduction and these kinds of bridge laws don't exist.[67]

## Kim's Rebuttal

Kim writes that what is at issue is that under AM mental properties do not have any causal efficacy as mental properties. To that end, it makes sense to ask why an event *c* is the cause of a certain event *e*. Is it in virtue of its physical or mental properties? On AM, it is the physical properties. Thus, mental properties do not have causal efficacy *qua mental*. They might be caually *relevant* but not efficacious. This distinction is quite important. Mental properties may be relevant in that the specific mental properties an event has make a difference as to which physical properties it has. What is wanted by Kim and other critics, however, is causal efficacy.[68]

Kim mainly has difficulties with the notion of strict laws. He writes that even non-strict pscyhophysical laws are problematic for AM. If there are nomic relations between mental and physical, then there would be some correlation between the domains; yet Davidson's key point is that the mental is inherently different from the physical, providing two different types of descriptions.[69]

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[66]Ibid., 11.

[67]Ibid., 15.

[68]Kim, "Can Supervenience Save Anomalous Monism?," in Mental Causation, 23.

[69]Ibid., 24-5.

Second, Davidson has also said that causal relations are instantiations of strict laws. But, if there are non-strict laws, why hold to this premise? Also, why insist on reduction only via strict laws? In fact, since Davidson holds that there are only strict laws at the level of physics, then there is no reduction whatsoever. Kim writes that a theory of reduction that entails that there is no reduction is an uninteresting sense of reduction.[70]

Plus, there is the further problem not discussed by Kim that there may not be any strict laws at all. Given quantum indeterminacy, it is possible that there are no strict, deterministic laws of nature. Many people hold to a view of laws as probabilistic or statistical. I don't want to get into the current debate over the laws of nature, but surely if strict laws are suspect and there are still non-strict psychophysical laws, then in what sense is Davidson's anomalous monism philosophically interesting?

We entered upon this discussion of supervenience to show what Kim considers to be the major flaw with Davidson's view, that you cannot have both dependency and the absence of psychophysical laws. Kim is claiming that nonreductive physicalism cannot succeed because it cannot account for both the distinctiveness of the mental and its causal efficacy.

Kim has argued that, given the three presuppositions of physicalism, the four theses of nonreductive physicalism are not consistent. The nonreductive physicalist

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[70]Ibid., 25-6. See also MPW, 93.

cannot develop a position that respects the dependence thesis and the distinctiveness of the mental required by her mental realism. Even typical responses to the reductivist position, such as Putnam' multiple-realizability and Davidon's anomalous monism, fall prey to the Exclusion Problem. It does not seem that there is a causal role for the mental if one accepts that it is dependent upon the physical. Yet, if one grasps the other horn of the dilemma, that the mental is distinct, then epiphenomenalism results and the causal efficacy of the mental is lost. And, given Alexander's dictum, it is hard to see how epiphenomenalism doesn't eventuate in a type of eliminativism.

I find Kim's arguments convincing, that we cannot save both the distinctiveness of the mental and its causal effectiveness. Given the presuppositions from which he works, this conclusion follows. In the next few chapters, I will examine some of those presuppositions and commitments. His views openly confront our basic intuitions of mental realism, and they stand against our clear experiences of mental efficacy.

# CHAPTER THREE

## THE MARK OF THE PHYSICAL

Thesis One of nonreductive physicalism claims that "All concrete particulars are physical."[1] It is crucial to any physicalism that it explain what it means by the physical. I do not think that a specific definition composed of necessary and sufficient conditions is likely. However, at least the concept of the "physical" needs to be clarified, because the nature of the physical is not a settled issue and has been open to various interpretations. However, Kim writes in *Supervenience and Mind*, "Nothing in the discussion to follow will depend on precise general definitions of 'physical' and 'mental.'"[2] One reason that Kim is left with the dilemma he has at the end of *Supervenience and Mind* is that he implicitly accepts a view of the nature of physicality which creates the difficulty for the mind-body problem. The debate on the nature of the physical world is still open. In the latter portion of this dissertation I will present a view of physicality that I believe can help to solve the mind-body problem, a view influenced by the metaphysics of Alfred North Whitehead. I will also argue that that view ought to be accepted over Kim's because a more appropriate philosophical methodology would accept the Whiteheadian approach.

During a public lecture by Prof. Kim at the University of Oklahoma, I posed the following question to him: "In *Supervenience and Mind*, you claim that it is not necessary

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[1]Jaegwon Kim, Supervenience and Mind (Cambridge: Cambridge University Press, 1993), 364-65.

[2]Ibid., 340.

to specify what is meant by the physical and the mental. Since different conceptions of the physical, such as those of Peirce, James, Whitehead, or Russell, might be able to escape your dilemma, what do you conceive the physical to be?" Kim responded that he probably would not be able to give me a satisfactory answer and began to recount various traditional notions of the physical and the mental such as Descartes' and Brentano's. He seemed to conclude that none of them were satisfactory in being able to give necessary and sufficient conditions, but that the basic understanding is that the mental is what we have direct, privileged access to and that the physical is what is public and indirect. He concluded that the question as to whether beliefs and desires can be explained by what we now know about the brain is important no matter what our conception of the physical or mental.[3] However, this answer seems less than satisfactory. Surely some clarification of the concept of the *physical* would be helpful. Noam Chomsky has criticized physicalism for not specifying what it means by the physical. Let me begin by exploring his criticism.

## Chomsky's Criticism

In his *Modular Approaches to the Study of the Mind*, Chomsky is concerned with sketching "out a range of problems that fall within what is sometimes called cognitive psychology . . . ", which he says is "a field which attempts to approach questions of human

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[3]Lecture of Jaegwon Kim, "Mental Causation and Consciousness the Two (Not One) Worldknots," David Ross Boyd Lecture given at the University of Oklahoma, 7 October 1998.

thought in the spirit of rational inquiry, putting aside and dismissing dogmatic methodological constraints such as those typical of the several varieties of behaviorism that flourished some years ago."[4] He begins by laying out some problems related to a theory of mental representations. Quickly, he finds himself asking two important questions: what is the causal role of mental representations and how do mental organs develop within the mind? Chomsky writes that these are the same questions that interested Descartes and that Descartes ought to be credited with raising these issues for modern philosophy.[5]

Chomsky, always respectful of the history of science, asks how Descartes came to his dualistic picture based upon his quest to answer these questions. Chomsky writes that Descartes began with a conception of body informed by the mechanics dominant in his lifetime. Descartes was able to explain everything in the world in terms of this "contact mechanics" except for the human will. That was the residue left over. Chomsky quotes from Louis de LaForge, a Cartesian:

> . . . that secret disposition of the invisible parts of the body of the animal, and principally of its brain, according to which, after being imprinted by an object, man feels incited and inclined--and the animal feels compelled--to make appropriate actions and movements. . . . the soul, despite the disposition of the body, can prevent these movements when it has the ability to reflect on its actions and when the body is able to obey.[6]

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[4]Noam Chomsky, Modular Approaches to the Study of the Mind (San Diego: San Diego State University Press, 1980), 1.

[5]Ibid., 4.

[6]Ibid., 5.

The Cartesians were pointing at what they saw as a basic distinction between humans and animals--that animals are compelled to action and humans are merely inclined. For humans, there is a realm of choice, thus the soul. The soul is the part that evades the contact mechanics.

Descartes was also interested in language. Chomsky points out that Descartes was convinced the human language ability revealed a "creative aspect of language use." Descartes based this conclusion upon three characteristics of human language use. The first characteristic was that it is unbounded--there is an implicit variety of possible utterances. Secondly because it is "free from stimulus control." Finally "Descartes said that the use of language is somehow appropriate to situations and evokes in other minds the thought we have in our mind."[7] Language was an excellent example of the human ability to choose.

Chomsky writes that Descartes found something that could not be explained according to mechanical principles. Chomsky labels this something a "creative principle" and explains that the Cartesian soul was used to explain the role that this creative principle plays in the world. As he also points out, Descartes ultimately said that how this principle works in the world is a mystery.[8] Descartes was so convinced by the reality of these mental aspects, however, that he was unable to dismiss them even when they could not be fitted into his mechanical worldview.

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[7]Ibid., 6.

[8]Ibid.

Chomsky is not fully convinced by Descartes that these issues are basically mysterious. However, he does have a certain intellectual humility regarding our ability to solve these deep questions. Chomsky writes:

> If you look at physics, or the history of ideas, or the theory of evolution or whatever, it seems to me that no reason has been advanced to lead us to suppose that we can find answers to the questions we can pose except in certain very narrow domains. It could turn out that questions of this sort lie beyond the bounds of the specific biological system which is human intelligence.[9]

As we all know, the Cartesian picture soon fell apart. But, Chomsky perceptively points out that a study of the history of science will show that it was not the Cartesian picture of minds that failed. In fact, the aspects of the mental have not substantially changed even in the current debate in the philosophy of mind. What did fail in modern science was the Cartesian notion of bodies.

Isaac Newton demonstrated that bodies do not obey the laws of Cartesian mechanics. He put forth a conception of what was at the time called an "occult force"--gravitation. Gravitation was basically action at a distance, which had been dismissed in the earlier advances in mechanics. Chomsky points out that Newton's postulation of the gravitational principle, though, was similar to Descartes's postulation of the creative principle. Each thinker had phenomena that could not be explained within the picture given by mechanics--mentality for Descartes, especially choice, and planetary motion for Newton.

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[9]Ibid., 7.

As a result of Newton's work, Descartes' picture of bodies was eclipsed, leaving his questions unresolved. There is an important lesson to learn from this historical discussion. Chomsky writes:

> The crucial moral to draw from this story, I think, is the following: If one wants to treat the mind-body problem as a problem of reducibility, a problem of reducing talk about mind to talk about bodies, then we have to do what Descartes did. We have to start with a concept of body . . . . But, as this historical exercise shows, the fact of the matter is that we really have no concept of body: the concept of body is open and evolving. It changes.[10]

What Chomsky proposes is a methodological naturalism that does not attempt reduction. Instead, it aims for unification, which he says is the more dominant model in the history of science.[11] He says that since we lack a notion of body or matter, then there is no "coherent way to formulate issues related to the 'mind-body problem.'"[12] So, he proposes that we seek the "best theories" but "with no independent standard for evaluation apart from contribution to understanding, and hope for unification but with no advance doctrine about how, or whether, it can be achieved."[13] He criticizes eliminativism and

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[10]Ibid., 9. In Language and Nature, 5, Chomsky quotes Hume: "Newton seemed to draw off the veil from some of the mysteries of nature . . . he showed at the same time the imperfections of the mechanical philosophy; and thereby restored [Nature's] ultimate secrets to that obscurity in which they ever did and ever will remain."

[11]Chomsky, Language and Nature (Oxford: Oxford University Press, 1995), 3. In Language and Thought, 80, he points out that if reduction were the governing theme in science, then Newton would have said that there were no planetary orbits because they could not fit into his mechanical model.

[12]Ibid., 5.

[13]Ibid., 7.

physicalism for not being coherently formulated, but resting on a dualist tendency.[14] Chomsky seems to think that this dualist tendency plagues our thought and is an "illegitimate residue of common sense."[15] He writes that our common-sense worldview is dualistic and that we should not allow that to affect our efforts to understand ourselves.

Chomsky does think that there are limits to naturalistic inquiry and writes that it is possible, and from what he says he seems to think that it is probable, that we can learn more that is interesting about how humans think "by studying history or reading novels."[16] Naturalistic inquiry has its limitations, but should be viewed as the "attempt to study humans as we do anything else in the natural world"[17]--that latter implying that humans should not be viewed as something separate or entirely distinct from nature.

His criticism is quite biting in *Language and Thought*. About, eliminative materialism he writes, ". . .it's total gibberish until somebody tells us what matter is. Until somebody tells us what materialism is, there can't be any such thing as eliminative materialism, and *nobody* can tell you what matter is."[18] He argues that the ontological question of the mind-body problem is not very serious.[19] In fact, as he says in another

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[14]Ibid., 12.

[15]Ibid., 57.

[16]Ibid., 28.

[17]Ibid., 27.

[18]Chomsky, Language and Thought (Wakefield, RI: Moyer Bell, 1993), 84.

[19]Chomsky, MASM, 9.

place, when one is attempting scientific unification, "It's very commonly been the case that what we think of as the more fundamental science had to be radically revised."[20]

The basic moral of the story in this examination of Chomsky is that we really cannot approach the ontological issues *without* addressing the fundamental question of the nature of matter. He thinks that no answer to that more fundamental question is forthcoming. I do not share his metaphysical skepticism. Instead, I believe that a rethinking of the traditional modern views of experience and the traditional modern ontology can result in a revised conception of the "physical" that can answer the ontological mind-body questions. In the next section I will explore David Chalmers' attempt to do just this, though my full treatment will wait for the second part of this paper which will examine Whitehead's philosophy.

Chomsky is also highly critical of those materialists or physicalists who act as if there were some clear and precise conception of matter. Some philosophers have realized that this more fundamental question has to be addressed and that in addressing it, one might discover that an adequate conception of the nature of physical reality will provide the means to give an adequate explanation of mental reality. David Chalmers is one such philosopher. What we see is that if Kim did consider this fundamental question, then he might not be forced into the dilemma between saving consciousness and mental causation.

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[20]Chomsky, LT, 81.

## Chalmers

David Chalmers, in *The Conscious Mind*, envisions the groundwork for a science of consciousness.[21] He explains that the traditional methods of dealing with the issue cannot solve the problem of consciousness. So, he aims to "get clear about what the problems are," present the bases for some future areas of exploration, and discuss a couple of areas where his ideas have interesting applications (artificial intelligence and quantum mechanics, specifically).[22]

He presents his basic methodology as fitting within three constraints outlined in his "Introduction." First, he aims to take consciousness seriously. Much like Kim, he asserts that there is clearly something that we consider consciousness that needs to be explained.[23] Wisely, Chalmers admits that he can give no *proof* about the existence of consciousness or any real arguments against an eliminativist strategy except that consciousness clearly is a part of his own experience. He writes that the real divide in the philosophy of mind is between those people who think that there is a "hard problem" and

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[21]For further comments by Chalmers on this science of consciousness, see "First-Person Methods in the Science of Consciousness," Consciousness Bulletin (Fall 1999): 8, 10-11.

[22]David Chalmers, The Conscious Mind: In Search of a Fundamental Theory (New York: Oxford University Press, 1996), xii.

[23]Nicely, he spends much of the first chapter laying out a geography of different mental functions and properties. He wants to be clear that he is addressing the phenomenal properties of our experience and not other issues like self-awareness that could be and sometimes are confused with consciousness. Whitehead uses "consciousness" to refer to high-order mental functions and not as simple subjectivity.

those that don't. He says that it is difficult to talk beyond this gap from one group to another.[24] Kim and Chalmers, though, do fall on the same side of the divide.[25] Chalmers writes, "The real argument of the book is that *if* one takes consciousness seriously, the position I lay out is where one should end up."[26]

The second constraint is that he takes science seriously. He writes that he has tried to stay compatible with contemporary science, while remaining open to explore various options where the scientific community has yet to arrive at a settled opinion (his interpretation of quantum mechanics would be a good example).

Finally, he writes that consciousness is a natural phenomenon, "falling under the sway of natural laws."[27] By implication this rejects a supernatural dualistic interpretation of the mind. Chalmers' claim, though, is rather straightforward. Consciousness is part of our experience of the world. Therefore, it is a natural phenomenon. Natural phenomena are governed by natural laws. So, consciousness ought to be as well. He does entertain

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[24]Ibid., xiii.

[25]I attended a session at the 1997 Eastern APA where a paper was presented on consciousness. I forget who the speaker was, but his basic thesis was that there wasn't a hard problem. He gave an explanation for what he called consciousness and wondered aloud why it didn't suffice for those people who thought that there was a hard problem. He wanted to know what else there was to explain. I found that he hadn't addressed what I considered to be the problem with consciousness, that he had misunderstood what those that take consciousness seriously are talking about. So, I can firmly accept Chalmers' claim that this divide is truly what separates philosophers of mind.

[26]Ibid.

[27]Ibid.

the possibility that consciousness might be a mystery that is unsolvable, but rejects this claim (defended by Colin McGinn among others) as premature. He writes that we are merely at the beginnings of a science of consciousness and that there are areas that can be and need to be explored. It may turn out that we are unable to formulate a science of consciousness, but that is merely speculation at this point in history.

He also gives the reader one warning. Some of his conclusions may sound "unscientific." For example, he rejects materialism and embraces a type of dualism. He says this must be done because it is the best explanation. He writes, "Materialism is a beautiful and compelling view of the world, but to account for consciousness, we have to go beyond the resources it provides."[28] And, with that set of constraints, he begins to develop his theory of consciousness that will lead him to explore the basic nature of physical reality.

Now, Chalmers thinks that much about the mind can be explained functionally. Most psychological states can be explained within a functionalist theory of the mind as developed within contemporary cognitive science (or, at least, such explanations are possible, but may not have been discovered just yet).[29] However, there is no functional explanation for consciousness that works, so some other type of explanation must be

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[28]Ibid., xiv.

[29]Ibid., 46.

explored.[30] He does not think that a reductive explanation will work. He writes that reductive explanations hold when there is a logical supervenience between two properties, such that the existence of one gets you the other in every logically possible world.[31] He thinks that almost everything in the universe is logically supervenient on the physical. There are a few things that escape reduction, and he thinks that consciousness is one of those things.[32] His basic ontology reveals five types of existents: "(1) particular physical facts, (2) facts about conscious experience, (3) laws of nature, (4) a second-order 'That's all' fact, and perhaps (5) an indexical fact about my location."[33]

His third chapter picks up the argument that consciousness cannot be reductively explained. He presents a series of arguments, but the first, and now most discussed, is his zombie argument.[34] The basic argument is that one can conceive of a world that is a

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[30]Ibid., 47. John Searle criticizes Chalmers at just this point--holding to functionalism and supporting arguments that show that functionalism cannot account for consciousness. See Searle's chapter on Chalmers in The Mystery of Consciousness (New York: A New York Review Book, 1997).

[31]Ibid., 47-8. I do not want to take the space and time to present the detailed arguments that he gives for different models of supervenience, different types of explanation, etc. I merely want to give some sense of his overall view before presenting his position on the nature of physical reality.

[32]Ibid., 71.

[33]Ibid., 87. I would love to discuss the similarities and dissimilarities with Whitehead in this breakdown and at other places in Chalmers' text, but that is not my point here.

[34]For a criticism of this argument see "Conceptual Analysis, Dualism and the Explanatory Gap," by Ned Block and Robert Stalnaker at http://www.nyu.edu/gsas/dept/philo/faculty/block/ papers/ExplanatoryGap.html,

physical duplicate of our own but lacking the mental properties found in this world. Imagine a world with zombies, say a world just like our own where you have a zombie counterpart. That zombie is physically identical with you, including behaving in the same way. However, that zombie does not have the conscious experiences that you do. It does not have phenomenal properties or qualia. Chalmers says that such a world is logically possible.[35] If it is, then we can conceive that these mental properties and physical properties are distinct.[36] Consciousness does not logically supervene upon the physical, because fixing the physical facts does not fix the consciousness facts.

Chalmers concludes that consciousness is supervenient in a more limited sense that he calls natural supervenience. He defines natural supervenience as follows:

> Natural supervenience holds when, among all naturally possible situations, those with the same distribution of A-properties have the same distribution of B-properties: that is, when the A-facts about a situation *naturally necessitate* the B-facts. (emphasis in original)[37]

And, natural possibility is defined as any situation that could occur given the laws of

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downloaded 10 July 1998. I have my doubts about the zombie argument as well.

[35]Part of my own concern with the argument is at this point. At least going back to Descartes we have these arguments for logical possibility based upon our conceptual ability. If we can conceive it, then it is possible. Maybe that is true if one takes logical possibility as anything that does not entail a contradiction. However, that isn't possibility in any really meaningful or interesting sense. Block and Stalnaker's concern is similar. See their article, pages 8-9 and 19, specifically.

[36]As such, this argument has some affinities with Descartes' argument for dualism in the Sixth Meditation.

[37]Chalmers, CM, 37.

nature.[38]

One outcome of this natural supervenience is that consciousness could lack causal efficacy. If we hold to the causal closure of the physical (as Kim and Chalmers both do), then there seems to be no causal work left for consciousness, so it must be an epiphenomenon. According to Chalmer's natural supervenience, there is a physical explanation for every physical event. Just as Kim wonders what work is left for consciousness, Chalmers raises that question. Faced with the possibility of epiphenomenalism, Chalmers responds with "a two-pronged strategy."[39]

The second prong discusses whether or not epiphenomenalism is such a bad thing after all. He writes that he is uncomfortable with it, but if it is the best option left available, then one may end up committing to it and admitting that it is merely counterintuitive. However, he says that there are still some other options that need to be explored, and the main one of these is discussed in his first prong.[40] It is to that discussion that I now turn and which will bring us closer to the main issue before us.

He discusses four options in the first prong of his strategy. He dismisses the first, and the fourth is our major concern. The first prong concerns causation. He says that if one views causation along strict Humean lines, then there is an explanation for mental causal efficacy. There are abundant examples of mental events followed by their intended

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[38]Ibid., 36.

[39]Ibid., 150.

[40]Ibid., 160.

physical events. The mere constant conjunction of these is an example of causation. Chalmers is, rightly, not satisfied with this answer. Nor, is he satisfied with Humean views of causation. I will not explore his criticisms of these because I will offer my own in the next chapter. He dismisses option one as unsatisfactory for avoiding epiphenomenalism.[41]

The second possible first-prong strategy is to accept causal overdetermination of the physical by the mental.[42] Remember that Jaegwon Kim dismisses this possibility. Chalmers writes that though overdetermination is viewed suspiciously, there does not seem to be any conclusive argument that it is wrong. He says that given that causation is so poorly understood, overdetermination might be a possibility, though it is not one he plans to explore.

The third strategy is to find some connection between causation and consciousness. Neither consciousness nor causation logically supervenes on particular physical facts, so it is possible that they are related. He writes, "Perhaps, for instance, experience itself is a kind of causal nexus."[43] Phenomenal, conscious experience, then, could be the thing that "realizes" causation. Chalmers does not develop these points any further, but he admits that there are issues worth investigating along these lines.

Finally, Chalmers raises the question as to whether there might be basic

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[41]Ibid., 151.

[42]Ibid, 152.

[43]Ibid., 152.

phenomenal properties that correspond to basic physical properties. Though he is not fully convinced of this view, he often feels pushed in that direction, mainly as a way of explaining how consciousness can emerge as a new type of property from a purely physical nature.[44]

One thesis that Chalmers entertains is the Russellian idea that physical nature has intrinsic properties.[45] Chalmers writes that physics could only explore the extrinsic properties that enter into causal relations with other objects. He writes, "The picture of the physical world that this yields is that of a giant causal flux, but the picture tells us nothing about what all this causation *relates*."[46] He also writes that a world of pure causal

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[44]Lecture of David Chalmers, given at the Symposium on Consciousness at the University of Arkansas, 18 September 1998.

[45]Russell develops these ideas in The Analysis of Matter, 1st. edition, 1927 (New York: Dover Publications, 1954). In this work it is Russell's aim to bring physics and psychology together in discussing the nature of the physical world (10). For his statements about the intrinsic nature of physical reality see pages 264, 271, 345f, 400, and the chapter "Physics and Neutral Monism." Let me give you one extended quote from the text, which is an argument that anticipates Fred Jackson's views on qualia:

> We need to know in what physical circumstances such-and-such a percept will arise, and we must not neglect the more intimate qualitative knowledge which we possess concerning mental events. There will thus remain a certain sphere which will be outside physics. To take a simple instance: physics might, ideally, be able to predict that at such a time my eye would receive a stimulus of a certain sort; it might be able to trace the physical properties of the resulting events in the eye and the brain, one of which is, in fact, a visual percept; but it could not itself give us the knowledge that one of them is a visual percept. It is obvious that a man who can see knows things which a blind man cannot know; but a blind man can know the whole of physics. Thus the knowledge which other men have and he has not is not part of physics. (389)

[46]Chalmers, CM, 153.

flux is logically impossible because there would be no *things* to be causally related in that world.[47]

So, do we have any reason to posit intrinsic properties? It is intuitive that there is some internal nature to objects. He writes that we are aware of one type of intrinsic property--phenomenal properties. Chalmers says that there is no real reason to suppose that the intrinsic properties of other entities are that much different from experiential properties. After all, "Their nature is up for grabs, and phenomenal properties seem as likely a candidate as any other."[48] Again, "if phenomenal properties are fundamental, it is natural to suppose that they might be widespread."[49]

His basic argument is noncommittal, and he is honest about his indecisiveness. In fact, he proposes the development of a science of consciousness to examine his hypotheses. However, his argument seems to be something like the following:

1) Phenomenal properties exist.

2) Phenomenal properties are fundamental (remember his basic ontology).

3) Physical nature has both extrinsic and intrinsic properties (one explained by science, the other is intuitive).

4) Phenomenal properties are intrinsic properties of human beings.

5) Thus, it is possible that phenomenal properties or something very like them

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[47]Ibid., 154.

[48]Ibid., 153-4.

[49]Ibid., 154.

(maybe protophenomenal properties) are the intrinsic properties of other physical entities.

Chalmers thinks that if natural entities are viewed as having both physical and "mental" properties, then the causal role of consciousness can be explained. Consciousness, then, is not a weird anomaly whose appearance among physical nature must be explained. Instead, it is as fundamental a part of the universe as what we normally call "physical." Let him speak for himself on this point:

> Either way, this sort of intimate link suggests a kind of causal role for the phenomenal. If there are intrinsic properties of the physical, it is instantiations of these properties that physical causation ultimately relates. If these are phenomenal properties, then there is phenomenal causation; and if these are protophenomenal properties, then phenomenal properties inherit causal relevance by their supervenient status, just as billiard balls inherit causal relevance from molecules. In either case, the phenomenology of experience in human agents may inherit causal relevance from the causal role of the intrinsic properties of the physical.[50]

So, phenomenal properties might be jointly a part of fundamental reality along with the physical. Or, they might be aspects of a more fundamental neutral monism that gives rise to both the physical and the mental. Chalmers surmises that the fundamental laws will be those that relate these basic properties. The traditional laws of nature, then, would be built up out of these more basic laws.[51]

Chalmers admits that these ideas are merely speculation, but views them as areas where philosophical and scientific exploration can be done. Near the end of his text, he

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[50]Ibid.

[51]Ibid., 155.

puts more meat on these bones by speculating further about these ideas. He says that *information* might be fundamental and ubiquitous.[52] The mental and the physical, then, would both be aspects of information, and he asserts a double-aspect principle that information always has both aspects.[53] He concludes that information is everywhere there is causation. Since causation is everywhere, so is information. That also means that experience is everywhere, which leads to an interesting section of the book entitled "What is it like to be a thermostat?"[54], which is followed by the section entitled "Whither panpsychism?"[55] He doesn't actually like that term, resisting the view that *minds* permeate reality. He is pushed more toward the idea that proto-phenomenal properties are ubiquitous. He doesn't fully embrace these ideas, but is considering them. He writes, "there seem to be no knockdown arguments against this view, and there are various positive reasons why one might embrace it."[56]

Chalmers, then, shows us that other possibilities exist that need to be explored. Chomsky warned that physicalism cannot be done without coming to grips with some idea

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[52]Ibid., 277ff.

[53]Ibid., 284ff.

[54]Ibid., 293ff.

[55]Ibid., 297ff.

[56]Ibid., 299. If anything, Searle's chapter supports Chalmers here. Searle's only "argument" is that this idea is "absurd" (see Searle, 156). In response Chalmers writes that panpsychism remains counterintuitive, but should not be eliminated from consideration at the beginning of inquiry (see Searle, 166).

about the nature of physical reality. Kim, however, says that this specification of the nature of the physical is unimportant. What we have seen, however, is one contemporary analytic philosopher who has asked some basic questions about the physical.[57] He has concluded that there might be phenomenal or proto-phenomenal properties that are a fundamental part of physical reality. If so, then he thinks that both the distinctiveness of the mental and its causal role can be explained. Thus, Chalmers provides a possible route for evading Kim's dilemma. What we see is that Kim's dilemma arises, partially, because of his unspecified view of the nature of physical reality.

## Kim's Views on Physical Reality

Though in *Supervenience and Mind* Kim never gives a careful explanation of what he means by the physical, it is clear that he is not in agreement with Chalmers' speculations or Russell's views of 1927. Clearly, then, there is an implicit view about the nature of physical reality in Kim's writings. Let me take a moment to explicate a little of this view and then show how it helps to create his difficulties in relating mind to body.

In response to my direct question, mentioned at the beginning of this chapter,

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[57]We could have explored Russell's arguments as well and used him as an example in the same way. However, there is no need to overdo it. Russell's work in Analysis of Matter is quite interesting and provides the background for Chalmers' work. I do refer the reader to it. Also, the work often refers to Whitehead and seems, in many ways, to be a response to Whitehead's work, with which Russell has a lot of sympathy. For example, we read, "The principles which inspire Dr Whitehead's work appear to me essential to a right solution of the problem, although in the detail I should sometimes incline to a somewhat more conservative attitude"(6-7).

Kim answered that the physical is something like Cartesian matter with the property of extension as basic, it is public (as opposed to private mental states), and our access to it is indirect (as opposed to direct access to mental states).[58] Russell, too, accepts that matter is public and indirect, so these criteria alone do not fully explain the difference.

The public criterion is further clarified when Kim discusses the objective nature of science. He writes:

> Science as *objective* (or *intersubjective*): this is the idea that scientific disagreements can in principle be resolved on the basis of impersonal criteria and evidence that the disputants could agree on, where the evidence ultimately consists in data of observation. This requires that scientific properties -- properties in terms of which descriptions, laws, and explanations in science are formulated -- be intersubjectively accessible properties. That is, their presence or absence in a given case should be intersubjectively confirmable or disconfirmable on the basis of sharable observation data, however indirect or holistic the procedure may be. In short: scientific properties must be intersubjective and public.[59](emphasis in original)

This discussion of objectivity in science explains what Kim generally means by public access. Now, we simply need to apply that to his conception of the physical world and see that physical properties are those that are based upon impersonal criteria that are intersubjectively accessible to the inquiring community. Also, the confirmation of the physical relies upon "sharable observation data." We have a clearer idea, then, of what public is.

He also answered that the physical is something like Cartesian matter. Kim's

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[58]Kim, "Mental Causation and Consciousness."

[59]Kim, "Philosophical Naturalism: Its Sources, Claims, and Status," manuscript, 10.

views on matter are not those of the early Cartesian "contact mechanics" as Chomsky called it. These mechanists conceived of the world as isolated bits of matter that bumped each other around with no internal effects. Kim does view the world as interconnected. He writes that the world is not merely an "assemblage of unrelated objects, events, and facts, but [constitutes] a system, something that shows *structure*, and whose constituents are connected with one another in significant ways" (emphasis in original).[60] Kim discusses these interconnections as matters of dependence and explores causal and supervenient relations. We will examine his views on causation in the next chapter.

We have learned that his views on the physical are roughly Cartesian, though not limited to "contact mechanics." They are something to which we have indirect access and are public. In *Supervenience and Mind* he does sketch a few more ideas. In the same paragraph in which he rejects the need for a specific characterization of physical and mental, he writes:

> Minimally perhaps a physical entity must have a determinate location in space and time; but that may not be enough. Perhaps an entity is physical just in case it has some physical property or other. But what makes a property a physical property? Perhaps, the best answer we could muster is what Hellman and Thompson have offered; explain 'physical' by reference to current theoretical physics.[61]

It becomes clear that Kim does take contemporary views in physics to be determinative

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[60]Kim, SM, 53.

[61]Ibid., 340. I am concerned with the idea of a "determinate location in space and time." It is my understanding of Heisenberg's Uncertainty Principle that such is not forthcoming. However, I will not take the time to explore this question here, but simply raise it as a possible difficulty in Kim's conception of the physical, if my understanding of quantum mechanics is correct, something speculative in itself.

about the nature of physical reality.[62] It is the only science that attempts to give a comprehensive account of the world.[63] But, science does leave some questions open.

In his uncompleted essay on naturalism, Kim draws a distinction between materialism and physicalism. My distinction is somewhat similar. I usually reserve materialism for views that are prior to or not based upon twentieth-century revolutions in science. Kim's distinction is similar, in that physicalism as a philosophical perspective rests upon whatever physics determines at the time is ultimate reality.

Kim is aware that speculation in contemporary physics leaves open the question of the nature of physical reality. He writes:

> For on this understanding, whatever future physics recognizes as a fundamental constituent of reality, however, bizarre it may be, will count as physical (Hilary Putnam recently observed that considerations of quantum mechanics showed that 'there is mind all the way down"!). This leads to an intriguing conception of 'physics': physics, by definition, is that science which is to give us the most complete and comprehensive description of nature. Any basic entity or property that figures in such a description counts as physical. So if some sort of proto-mentality should show up in future microphysics, that would make mentality physical, on this conception. No a priori assumption to the contrary could be justified, it might be argued. On this understanding of 'physicalism', physicalism may turn out to be antimaterialist.[64]

By implication, Kim does not share Putnam's claim. Kim does not present a theory that, like Russell's and Chalmers', explores the possibility of fundamental and pervasive

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[62]Ibid., xv.

[63]Kim, "Physicalism and Panexperientialism: Response to David Ray Griffin," Process Studies 28 (Spring-Summer 1999): 28.

[64]Kim, "Naturalism," 14.

phenomenal or proto-phenomenal properties. He even argues against this view in his response to Griffin. However, he does understand that it is an open question. And, he is also clear that if physics does posit phenomenal or proto-phenomenal properties, then these would become part of the physical reality to which a physicalist is committed.

In *Mind in a Physical World*, he does give a more explicit discussion of physicality. He first repeats the point that the basic entities, properities, and relations of basic physics are physical.[65] He is concerned with what else counts as physical. He allows three other categories. First are aggregates of fundamental physical entities. This category encompasses chairs, cars, stars, and the like.[66] The second category is a set of micro-based properties. The example he uses is the property of being one kilogram. He defines physical micro-based properties:

> If $P$ is a micro-based property of having parts $a_1, \ldots, a_n$, such that $P_1(a_1), \ldots, P_n(a_n)$, and $R(a_1, \ldots, a_n)$, then $P$ is a physical property provided that $P_1, \ldots, P_2$, and $R$ are physical properties (and relations), and each $a_i$ is a basic particle or an aggregate of basic particles.[67]

So, there are properties, like mass, that are physical in virture of being composed of properties and relations that are fundamental to physics. The final category is second-order properties. Here he is particularly concerned with functional properties and dispositions. He writes that any second-order property defined over physical properties

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[65]Kim, MPW, 113.

[66]Ibid.

[67]Ibid., 114.

would be included.

This discussion, however, does not explore the fundamental ontological issues we have been considering. The main point in the relevant section of *Mind in a Physical World* is to make sure that objects like tables and properties like mass and transparency are not left out of any philosophy of the physical. I will clearly grant that these are included and that his assertions are straightforward and uncontroversial. What remains is the issue of what the nature of those fundamental particles, properties, and relations is.

As we've seen, Kim is committed to a view of physical reality that rules out fundamental and pervasive phenomenal or proto-phenomenal properties. The distinction drawn in this paper is that that commitment of Kim's is one cause of his dilemma within the mind-body problem. The criticism of this chapter is that Kim fails to specify what he means by the physical. Chomsky's criticism and Chalmers' alternative illustrate that prior to the mind-body problem there are basic questions about bodies that must be addressed. As we will see increasinly in coming chapters, Kim has *a priori* commitments which lead to his dilemma. These *a priori* commitments are sometimes held to in the face of contravening empirical evidence. Though Kim does not think any particular conception of the physical is important, it is clear that some approaches might avoid his dilemma. His theory lacks overall adequacy because it fails to develop more carefully a position on the nature of physical actuality, which is to say that Kim is mistaken.

# CHAPTER FOUR

## CAUSATION

Kim identifies mental causation and consciousness as two horns of the dilemma for nonreductive physicalism. He believes that if mental states have any causal efficacy, then their causal efficacy is in virtue of their supervenience on physical states. And, from what we have seen, his view of supervenience is a form of reductionism. Mental causation, then, plays an important role in his dilemma. In this chapter I will explore Kim's views on causation. Since he writes that his views are basically Humean, I will examine Hume's views on causation as well in an attempt to explicate the fundamental mistakes of this view of causation. I seek to demonstrate that the Humean view of causation is inadequate and seriously flawed. Aspects of this chapter will anticipate the next, in which I will examine Kim's views on experience. Before moving on, I must explain two points related to this chapter's arguments. First, I realize that all of the criticisms leveled against Hume are not arguments against Kim. The arguments against Hume are needed to illustrate fundamental errors with this type of philosophy and to introduce topics for discussion in the next three chapters. Second, as pointed out in the section on David Chalmers in Chapter Three, a Humean view of causation should not have a problem with mental causation. If causation is merely constant conjunction, then there are clear constant conjunctions between mental and physical events. Therefore, there is some problem for Kim when he claims to be a Humean in regards to causation and yet finds it problematic.

## Kim on Causation

At the beginning of the final chapter of *Supervenience and Mind* he sketches his views on mental causation:

> The idea, roughly, is that for an instance of mental property $M$ to cause, or be caused by event $e$ (let's assume $e$ is a physical event), the following conditions must hold: there is a physical-biological property $P$ such that (1) $M$ supervenes on $P$; (2) $P$ is instantiated on the occasion of $M$'s instantiation; and (3) this instance of $P$ causes $e$, or is caused by $e$ (on your favorite account of physical causation).[1]

This sketch of his views does not differ from what was presented in Chapter Two of this paper. As was clear then, $M$ ends up being no cause at all, because $P$ is doing all the causal work. Plus, Kim rejects overdetermination, so $M$ does no causal work but merely supervenes on $P$.

He writes that he had accepted this account as a satisfactory approach to mental causation, but had come to be disturbed by it. It is hard for me to understand how Kim, who also believes in mental realism, could have ever accepted this picture of mental causation. Anyway, he writes that even though he feels it has its problems, it is still his basic view. In fact, as we have seen, this account plays a role in the dilemma that ends the text.

Mental states are realized by physical states. Each particular instant of a mental state is realized by a particular physical state. Conscious states, like qualia, might be

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[1]Kim, Supervenience and Mind (Cambridge: Cambridge University Press, 1993), 358.

distinct and not physically realized, but then they have no causal efficacy.[2] Kim claims to be committed to two principles that force him into this position:

1) Alexander's Dictum--To be real is to have causal powers.

2) Causal Closure Principle--If a physical event has a cause, it has a physical cause.

Principle Two asserts that the physical domain is closed. It rules out any causal role for Cartesian souls or a supernatural deity. Kim writes, "The physical causal closure, therefore, seems to leave no room for nonphysical causes of physical events."[3] To assert that there are nonphysical causes is to deny that physics can be complete, that it can describe all of reality. Principle One is a long-accepted view going back before Alexander (see note 2 for my comments on Kim and this principle).

It is clear how these principles get him into his dilemma. If mental states had causal efficacy independent of their supervenience on physical states, then Principle Two would not be true. Also, if causal efficacy resides only in the physical states, then the mental states would lack independent existence according to Alexander's dictum.

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[2]Lecture of Jaegwon Kim, "Reduction and Reductive Explanation: Can We Solve the Mind-Body Problem?", David Ross Boyd Lecture given at the University of Oklahoma, 9 October 1998 and dinner conversation in Norman, Oklahoma on 6 October 1998. Note that Kim would not be fully committed to Alexander's dictum but would accept the real as what has causal powers or is a supervenient property of those entities with causal powers. However, he is not certain that qualia supervene. So there might be three categories, the two above and also conscious states. See Kim, "Physicalism and Panexperientialism: Response to David Ray Griffin," Process Studies 28 (Spring-Summer 1999): 29.

[3]Kim, SM, 361.

I will return to a discussion of the causal closure principle at the end of this chapter. At this point, I want to express two concerns with his picture of mental causation. First, I still don't see how this is "mental" causation. He writes that accepting realizability allows one to save mental causation. But, the physical state is the cause. The mental state is merely an epiphenomenal property that has no causal efficacy in itself. David Ray Griffin holds that at this point Kim has presented us with a *reductio* of his views of physical reality.[4]

My other concern is that Kim's views on causation in general are flawed. He writes that his view is broadly a Humean view of causation.[5] Though he has not fully developed his views on causation, Kim does make a few basic claims in *Supervenience and Mind*. He identifies his view as broadly Humean, which is any "concept of causation that includes the idea that causal relations between individual events somehow involve general regularities."[6] This nomic model of causation follows from Hume's claim that constant conjunction plays the major role in our understanding of causation. Again, let me point out that if causation is merely constant conjunction, then there is no problem for mental causation. Kim does admit that there are difficulties with the Humean view and attempts to sketch an ontology of events with the intention of clearing up some of the ontological

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[4]David Ray Griffin, "Materialist and Panexperientialist Physicalism: A Critique of Jaegwon Kim's *Supervenience and Mind*," Process Studies 28 (Spring-Summer 1999): 11-12. I will return to Griffin's arguments later.

[5]Kim, SM, x and 3.

[6]Ibid., 4.

ambiguities of Hume's approach. One difficulty is that the relationship between particular instances of causation and the "lawlike correlations of generic events"[7] called for by the condition of constant conjunction.

The causal properties of our mental states are such a powerful element in our common experience. John Locke said that mind-body interaction is the clearest idea of causation that we have.[8] I tend to agree with Locke, but of course, our experience and intuition can be wrong. Part of the difficulty for Kim, though, is relating these specific instances of mental causation to which he is committed as a mental realist with this Humean, nomic view of causation and his *a priori* commitment to causal closure.

Locke and Kim take two importantly different approaches to the matter of mental causation. Kim's mental realism would seem to commit him initially to Locke's position. However, as we have seen, his stance questions the very nature of mental causation as pictured by Locke. Kim is different than Locke because he is committed to the Humean picture of causation. Whitehead had a lot of sympathy with Locke and agreed with his view over the objections of Hume. The Humean approach to causation is itself fundamentally flawed. A radically different, and I contend better, approach to causation will give us a surer standpoint from which to discuss the basic intuition that Locke cites, thus giving a picture of mental causation that evades Kim's dilemma.

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[7]Ibid., 12.

[8]John Locke, An Essay Concerning Human Understanding, ed. by Peter H. Nidditch (Oxford: Clarendon Press of the Oxford University Press, 1975), 133.

## Hume on Causation

At the start of Section III of the *Enquiry Concerning Human Understanding*, Hume declares that our ideas must have some connexion that enables them to introduce each other.[9] He enumerates three "principles of association" that govern the association of *ideas*: resemblance, spatio-temporal contiguity, and cause and effect.[10] For example, a picture of a flower inspires thoughts of the actual flower, the thoughts of one item in a series introduces thoughts of the other items, and the thoughts of a wound leads us to think of the cause of the pain. The strongest of these relations is cause and effect.[11]

Hume divides reason into two broad types: relations of ideas and matters of fact. The former are those truths that are discoverable by thought and do not require exploration of the physical universe. This type of reasoning is exemplified by mathematics with the propositions of these areas being necessary truths.[12] The other kind of reasoning is about contingent truths, whose contraries are still possible. It is Hume's major endeavor to explore this reasoning that we commonly use in exploring matters of fact. In so doing, he spends his energies on the topic of causation because, as he writes, "All

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[9]David Hume, Enquiries Concerning Human Understanding and Concerning the Principles of Morals, ed. by L. A. Selby-Bigge, 3rd. edition, ed. by P. H. Nidditch (Oxford: Clarendon Press, 1975), 23.

[10]Ibid., 24.

[11]Hume, A Treatise of Human Nature, ed. by L. A. Selby-Bigge, 2nd. edition, ed. by P. H. Nidditch (Oxford: Clarendon Press, 1978), 11.

[12]Hume, ECHU, 25.

reasonings concerning matter of fact seem to be founded on the relation of *Cause and Effect*" [*sic*].[13]

Since causal conclusions are not based upon any rational deductions, it is requisite for Hume to attempt to explain what human faculty does make the connection. The principle in question Hume identifies as custom or habit, for only repeated experiences of causal relations could lead one to draw the conclusion that there is a causal connection. It is for this reason that he calls custom the "great guide of life".[14]

Custom identifies causes and effects based upon three relations. The first of these is that causes are always spatially and temporally contiguous with their effects. Causation is only found by human nature in events that are spatially and temporally contiguous.[15] Another relation is that the cause is always prior in time to the effect. Hume rejects any consideration that cause and effect could be simultaneous. He rejects this option because he holds that there would be no succession from one event to another and that all things would exist at the same time.[16] Finally, he writes that our normal understanding of causality also requires the relation of necessary connexion. Though we observe a continuity and a priority in time and constant conjunction, we say that things are causally

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[13]Ibid., 26.

[14]Ibid., 43-4.

[15]Hume, THN, 75.

[16]Ibid., 76.

related only if we feel that there exists a necessary connexion between them.[17]

Then the important question for Hume is the genesis of the idea of necessary connexion. As with all other ideas, he subjects causation to his standard analysis, inquiring from what impression it arises. What he discovers is that there is none in the external world.[18] There is no observation, no experience, no sensation that ever discovers a power in nature. He uses the example of Adam, who could not have discovered the causal relations between objects when they first appeared to him, because the causality is no property of the object.[19]

Hume next considers whether the power can be discovered internally, particularly in the act of the will to direct the arm to move.[20] Clearly, Hume is directly considering Locke's claim. He concludes that even in this instance, we are ignorant of the force by which the mind directs the motion. He also makes three observations at this point. First, the most mysterious principle in nature is the union of soul and body, so appealing to it does not help anyone. Secondly, the will cannot control all of the organs of the body; only our experience has informed us as to what can be moved. Since we have learned of the power of the will only through experience, we must look to it, and it only gives us a conjunction between the event of willing and the motion. Finally, anatomy has discovered

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[17]Ibid., 77.

[18]Hume, ECHU, 63.

[19]Ibid., 27-9.

[20]Ibid., 64.

that there is a complex causal chain between the act of the will and the arm moving, with no power having been discovered between the minutest parts.[21] So, even this most familiar of examples has left us with only a conjunction and not a connexion.

Also convinced that nature lacked any causal powers, the occasionalists claimed that the deity is the efficient principle behind apparent causal connections. Hume rejects this theory outright. First, he feels that it would represent a greater feat on the part of God if the world were created to run on its own without constant intervention. This critique is very similar to that employed by others, such as Leibniz. Secondly, the conclusions cannot be drawn with our normal rational abilities because the argument for occasionalism has ventured into areas outside our experience and rational powers. Here we anticipate Hume's arguments in the *Dialogues*. Finally, our reason is just as ignorant of the force of the divine mind upon nature as it is of the force inherent within nature. Why, then, should another problem be raised to solve a simpler one? If our ignorance of powers in nature leads one to dismiss them, then they would have to dismiss powers in God, because we are ignorant of those as well.[22]

Hume is then left to conclude that our idea of cause and effect arises from some constant conjunction of events--simply a number of similar instances of which we have

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[21]Ibid., 65-6.

[22]Ibid., 71-3. I love this quote, "We are got into fairy land, long ere we have reached the last steps of our theory . . ." (72).

experience[23]. The connexion is felt by the mind and supplied by the imagination; thus there is no connexion in nature, but purely in our thoughts. He then proceeds to give two definitions for a cause. The first definition focuses upon the observation of the objects: "an object, followed by another, and where all the objects similar to the first are followed by objects similar to the second".[24] The second definition concerns our thoughts as well as objects: "an object followed by another, and whose appearance always conveys the thought to that other".[25]

Hume's analysis, therefore, denies that we can know any type of necessary connexion between cause and effect, and instead focuses on what we can know, which is simply the constant conjunction of the two events. His two definitions are attempts to describe that process whereby causal connections are imagined by the person. Lest the reader should worry that Hume is dispensing with causal reasoning, he warns that his philosophy will never "undermine the reasonings of common life", because this natural inclination will always win out over the abstract exercises.[26]

It is this basic view of causation, and the necessary view of experience that accompanies it, that Kim accepts. I will discuss experience in chapter five, but we see how Hume's criticism poses difficulties for the Lockean intuition, and ultimately sets up Kim's

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[23]Ibid., 74-5. See also THN, 87.

[24]Ibid., 76.

[25]Ibid., 77.

[26]Ibid., 41.

dilemma. Locke says that we have experience of mental-to-physical causation. Hume argues that we do not have such experience--that the connections are supplied by a habit of our minds. Let us turn to the criticisms of this view.

## Criticisms of Hume's View of Causation

Hume's view aroused early criticism from contemporaries such as Thomas Reid. Reid argued against Hume that a repetitious invariability is not sufficient to supply causation. Reid's example is that night can be seen as the cause of day or day as the cause of night on Hume's understanding. John Stuart Mill found this argument to be correct. He wanted to make an addition to Hume's view that it must also be impossible for the cause to exist without the effect or vice versa. Mill's arguments completely misunderstand Hume's criticism. It is just this necessary connexion that Mill wants that Hume denied existed (or at least that we cannot have any knowledge of it).

I'm not interested here in discussing all of the historical criticisms of Hume's views on causation. Where I believe Hume goes wrong is in denying the connections between events. Like William James, Whitehead defends a radical empiricism that claims that the relations between events are real and can be experienced. If one can experience the causal connection, then support is lent to the Lockean claim and we have some ground from which to respond to Kim's dilemma. In the remainder of this section I want to present criticisms of Hume's view along these lines. I will employ Whitehead's own work for the first time in this paper. I am not yet prepared to present and defend his own views on

causation (that will come in chapter seven). I am using Whitehead here because I feel that his criticisms of Hume, even independent of his own positive work, are quite successful. But first, let me defend an interesting criticism by Mary Whiton Calkins that objects to Hume's view of events.

## Hume on Events: Calkins' Response

Since initially writing this section, I have come to conclude that it is flawed, particularly in my reconstruction of Calkins' arguments. However, I have been advised to leave it in because of the interesting points raised and the connections to other aspects of the overall work. There is interesting work to be done in Calkins, and I hope to be able to do her argument justice in a later work.

In *The Persistent Problems of Philosophy*, Calkins develops her own views by going through the history of modern philosophy, presenting the various arguments of the major figures, and arguing in support or against their views. Her criticisms of Hume's views on causation are quite interesting, especially her criticism of his view of events. Before entering upon that criticism, let me explain that she is overall sympathetic with Hume's conclusions in his arguments on causation; she just thinks they are bad arguments.

She writes that Hume's arguments for causation have four main conclusions:

> 1) that causality does not involve the necessary connection of past with present and of present with future;
> 2) that causality does not involve the uniform relation of cause and effect; and
> 3) that causality is not an external relation--that is, a relation existing independently of consciousness. . . .
> 4) that causality is a customary conjunction of events, namely, the mental habit of

inferring one event from another.[27]

She rejects the first conclusion and it is that argument to which I will soon turn. She agrees with the conclusions of 2, 3, and 4, but finds Hume's arguments defective and tries to develop them. At this time, I will not explore her interesting work on these points. I point out her sympathies to show that she does not agree with my own, or Whitehead's, conclusions.

Let me now examine her argument against Hume's first point, that there is no necessary connexion between past and present and future. Calkins argues that the very nature of events necessarily entails the connexion between past and present and present and future. She writes that present is distinct from past and future in the same way that cause is distinct from effect. According to Hume's analysis then, there is no necessary connexion between past and present and present and future. She finds this conclusion unacceptable and turns to the nature of events to present her argument.

She first points out an ambiguity in Hume's argument. In the *Treatise*, Hume writes, ". . . all distinct ideas are separable from each other, and as the ideas of cause and

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[27]Mary Whiton Calkins, The Persistent Problems of Philosophy: An Introduction to Metaphysics Through the Study of Modern Systems (New York: The Macmillan Company, 1907), 170. If the reader is unfamiliar with Calkins, she was Professor of Philosophy and Psychology in Wellesley College and was an early President of the American Philosophical Association. She was also one of only three people who was also President of the American Psychological Association.

Calkins' presentation of the major theses of Hume's work would seem to question Kim's position. She says that consciousness and mental habits are what is important to the Humean view of causation. How could the mind play this role if it has no causal efficacy?

effect are evidently distinct, 'twill be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle."[28] Calkins argues that distinguishability does not imply separability. She writes that though the present can be distinguished from the past and the future, it cannot be separated from them. She bases her argument on the nature of events--"to be an event means precisely: to be a temporal reality with a past and a future."[29] An event necessarily implies that it has a past and that it has a future, and, thus, that there is a necessary connexion between past and present and present and future.

Let me allow Calkins to speak for herself:

> Granted that one thinks of an event at all, one must think of it as having some antecedent and some consequent. One is not certain that this past or this future is of this or that especial nature, but one is quite certain that every event has necessarily some past and some future. Thus, we know the necessity of the temporal relation just as we know the necessity of mathematical relations, because the contrary is inconceivable. In other words, at least the temporal connection, and for all that has so far appeared, the causal relation, really are what Hume calls relations of ideas, and are therefore necessary. Hume, indeed tacitly admits the failure of this argument, for he makes constant use of the assumption that past and present are connected with each other. He teaches, as has appeared, that the idea is an effect or copy of the antecedent impression, and that cause and effect are themselves 'customarily conjoined.' Such relations would be impossible if Hume were justified in teaching that distinguishable perceptions are separable.[30]

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[28]Hume, THN, 79.

[29]Calkins, 160. Kenneth Merrill also argues that Hume's principle that distinguishability implies separability is false. Merrill uses the example of a triangle. He says that a triangle can be conceived as distinct from a line, but a triangle cannot be conceived as separate from a line.

[30]Ibid., 160-61.

Her overall argument proceeds as follows:

C1) Hume argues that if something is distinguishable, then it is separable.

C2) It is not necessarily true that if something is distinguishable, then it is separable.

C3) You can distinguish the present from the past and the future, though they are not separable.

C4) An event is a temporal reality with a past and a future.

C5) That something is an event necessarily entails that it has a past and a future.

C6) Therefore, temporal connection is a necessary relation.

C7) The temporal relation and the causal relation are subjected to the same analysis in Hume.

She concludes that Hume has no grounds for holding that cause and effect are separable. She also concludes that causation is a necessary relation, and thus a relation of ideas. Finally, she argues that Hume himself tacitly defends this view by statements he makes elsewhere.[31]

Calkins' argument is a successful critique of Hume. C1 comes from Hume's own thoughts quoted above. C2 is supported by C3 to C6, but it also has an intuitive appeal. Remember Reid's argument. According to Hume's view of causation we would be able to say that night causes day and day causes night. Reid's example also applies to C2. Night and day are distinguishable, but they really aren't separable. Permanent night or permanent day are not physically possible given our knowledge of astronomy and the laws

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[31]We will see Whitehead making much of these problems of incoherence.

of physics.[32]

C3 is supported by C4 to C6. In effect, C5 is merely a restating of the definition of an event given in C4. I find no problem with the definition in C4. I believe that Calkins is correct, that the nature of an event is such that we immediately conceive it to have an antecedent and a consequent. She is also correct in agreeing with Hume that we don't know what particular consequent will follow, though we know that some consequent will. I guess one might respond by objecting that if the world were annihilated in the next second, then current events will not have antecedents. But, it seems to be a pretty innocuous assumption to add to the view the qualification that as long as the world continues in existence, then each event will have a consequent.

Kim writes that an event is "a concrete object (or *n*-tuple of objects) exemplifying a property (or *n*-adic relation) at a time."[33] His own discussion of events views events in isolation from their connections with other events. If Calkins' argument is correct, as it

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[32]Mill aside. Mill finds Reid's argument to be correct and says that it must be added to Hume that it is impossible for the cause to exist without the effect or vice versa. With this addition to Hume, then, Mill responds to Reid by saying that a permanent day is possible, as is a permanent night. There are two primary problems with this addendum. First, the argument that a permanent night or day is possible hardly seems to be any good. Given the state of the world, a permanent day or night is not possible. Secondly, the addendum doesn't seem to meet Hume's own criteria. How would we know that it is impossible for the cause or effect to exist separately? If they have always followed each other, we have no guarantee that they will in the future. Given that Mill does not address Hume's difficulties with induction, he does not realize the problems with this claim about causation. There is also an internal incoherency in Mill's position in that he later in *A System of Logic* writes that the rotation of the earth is a "permanent cause."

[33]Kim, SM, 8.

seems to be, then this outlook is an error on Kim's part. It would seem that an essential property of an event is its connections with antecedents and consequents. In Chapter Seven we will have to examine what notion of causation can be developed if one respects the integrity of the interconnection between events.

Despite Calkins' really nice argument against Hume on what she considers his first conclusion about causation, she largely agrees with his position. The most successful overall criticisms of Hume's views on causation have been presented by Whitehead. Kenneth Merrill has developed these criticisms of Whitehead's, so I will largely be relying upon his work of exposition in the next section.

### Merrill on Whitehead's Criticisms of Hume on Causation

Merrill's paper "Hume, Whitehead, and Philosophic Method" criticizes Hume's sense of philosophical methodology and defends Whitehead's.[34] Contained within the article are some successful arguments, developed from Whitehead or original to Merrill himself, against various positions of Hume's. Of particular interest to this exercise are his statements on Hume's views of experience and causation. I will examine the former in the next chapter, but I turn my attention to the latter now.

Whitehead and Merrill concur with Hume that knowledge of causation is not discovered in presentational immediacy. Presentational immediacy is the term that

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[34]Kenneth R. Merrill, "Hume, Whitehead, and Philosophic Method," in David Hume: Many-Sided Genius, ed. by Kenneth R. Merrill and Robert W. Shahan (Norman, OK: University of Oklahoma Press, 1976).

Whitehead uses for what Hume would have considered run-of-the-mill sense perception. Whitehead, however, says that experience is not limited to presentational immediacy. There is another aspect of experience which he terms causal efficacy. Though I will not fully develop his position at this point, it is a successful part of his criticism that Hume overlooks this other aspect of experience.

Merrill and Whitehead, similar to Calkins, criticize Hume for not restricting himself to his own system. Calkins refers to the clear case when Hume says that ideas *copy* impressions. This statement is fundamental to Hume's philosophy, yet it also implies a causal relationship between impressions and ideas.[35] Hume also appeals to concepts such as memory, practice, habit, and custom. These very concepts fail Hume's own test that these must arise from some impression.

Merrill presents an interesting example of Whitehead's to refute Hume's claims. It is the case of a man who has been sitting in a dark room for some time. Suddenly a light is turned on. The man blinks. Merrill writes that the physiological explanation is straightforward--"A spasm of neuro-muscular excitement is transmitted along nerves to some nodal center, and a responding nervous impulse causes the contraction of the eyelids."[36] Merrill acknowledges that the picture is simplified, but that it basically catches the idea. Clearly, the physiological explanation is a causal one. Merrill writes that Hume

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[35]Merrill, as well, develops some strong arguments against the relationship between impressions and ideas. See 136-40.

[36]Ibid., 156.

might respond by saying that this explanation is merely conjecture. Merrill responds, "Very well. Let us put aside our instinctive reluctance to reduce a well-established science to the level of a fairy tale."[37] Merrill is really not interested in this criticism, but returns to the example and asks about the experience of the man.

Suppose we ask the man why he blinked. He would answer that the flash of light made him blink. Of course, Hume would not accept this statement because the man had no experience of *making* in the event that occurred. As Merrill points out, Hume would say that what the man really felt was his habit of blinking after the light was turned on. A number of difficulties beset the Humean position. Do we suppose that the man wouldn't feel as if the light made him blink the very first time an event such as this occurred? Also, infants, who have not acquired such a habit also blink.

What really interests Merrill is that Hume thinks that the habit can be felt but that the cause cannot. He writes:

> The feeling of a habit is not the perception of something that is there as a spatial object; it is not an impression of sensation, as Hume freely admits. The formation of a habit requires time; and the feeling of a habit requires memory, the feeling of the conformation of the present to the past. How is it different from a cause?[38]

Causation involves conformation of present to past. So does memory, which must play a role in Hume's conception of habit. Thus, it would seem that Hume's very concepts do

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[37]Ibid.

[38]Ibid., 157. For Whitehead directly on this topic see Process and Reality, corrected edition, ed. by David Ray Griffin and Donald W. Sherburne, original edition 1929 (New York: The Free Press, 1978), 133-6.

not fit his own analysis.

Merrill also develops Whitehead's conception of causal efficacy and points to how even Hume is aware of this type of experience and uses it in developing his positions. Merrill quotes numerous instances where Hume refers to the eye seeing or the ear hearing.[39] Given that we experience the eye as seeing, we do have experience of causation. An example is my current sense that my eyes are tired from looking at this computer screen for much of the day. That is an experience of causal efficacy on the part of my eyes. These experiences are common. As Whitehead writes, "Thus in asserting the lack of perception of causality, he implicitly presupposes it."[40]

Another instance of experience of causal efficacy is proprioception, or the withness of the body.[41] Whitehead writes that proprioception is "an ever-present" part of our experience.[42] This continual feeling of inhabiting our bodies evades any empiricism limited merely to our five senses. Nor is this type of experience atomic in the sense of Hume's impressions. Plus, it gives us a sense of the causal functioning of our bodies and the connections between various parts.

Finally, Whitehead mentions an interesting example. He writes:

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[39]Ibid., 158.

[40]Whitehead, Symbolism, original edition 1927 (New York: Fordham University Press, 1985), 51. See all of his discussion 50-51.

[41]Merrill, 159.

[42]Whitehead, PR, 312.

> Most living creatures, of daytime habits, are more nervous in the dark, in the absence of familiar visual sense-data. But according to Hume, it is the very familiarity of the sense-data which is required for causal inference. Thus the sense of unseen effective presences in the dark is the opposite of what should happen.[43]

I think that this example speaks for itself to anyone who has ever walked alone in the woods at night.

Kim bases his views on causation on a seriously flawed theory. Most seriously, it is a theory of causation that cannot account for important elements of our experience. These very elements support the Lockean intuition and avoid the dilemma of Kim. It is wrongheaded to avoid the very elements of experience that can be used to explain the issue at question--mental causation in this case. As we've seen thus far in this chapter, what approach one takes to experience will decide important issues. In the next chapter, I will explore Kim's approach to experience. It sheds light on the source of his dilemma and leads back to my most basic issue--the different methodological approaches of Kim and Whitehead. But, before I move on to that, let me return to an issue I set aside previously--Kim's position on the causal closure of the physical.

## Causal Closure

One reason Kim is asking us to reject causal powers for the mental is that we will violate the causal-closure principle. He writes, "The physical causal closure, therefore,

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[43]Whitehead, S, 43.

seems to leave no room for nonphysical causes of physical events."[44] As we have seen, the implication is that if mental states are realized by physical states, as they are in Kim's view, then there is no need for the mental state to function as an extra cause. To continue to assert that the mental states have causal efficacy is to assert that there are nonphysical causes. To assert that there are nonphysical causes is to deny that physics can be complete, that it can describe all of reality. Causal closure would rule out the mental realism of Kim's original Thesis Four.

I oppose Kim's dogmatic adherence to the causal closure principle. The principle functions in such a way that it ultimately leads to Kim's dilemma. It does this by functioning in a way best described as *a priori*. I use this term not to indicate that he has no evidence for believing it, but that it is a theoretical commitment that is not seriously questioned in his metaphysics. According to Kim, causal efficacy can only be explained when mental states are realized by physical states and only have supervenient causation. The subjective states such as qualia, though, end up being epiphenomenal in Kim's view and, thus, have no causal efficacy. The causal closure principle is an open question and should not be held to dogmatically.[45] Kim's error is in clinging fast to this rather abstract

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[44]Kim, SM, 361.

[45]If the nature of the physical is revised in some way that allows for mentality as a fundamental part of "physical" reality, then there could be causal closure, but within the revised picture. I would be willing to accept this type of causal closure because mentality would be a part of the causal structure. Hence the "physical" of physical causal closure would include phenomenal, subjective, qualitative states. What I find objectionable about Kim on this issue is his dogmatic adherence in spite of his own professed mental realism.

principle that is still open for debate despite his own professed mental realism.

Is physical causal closure an open question? Russell, for one, finds it to be such. He calls the same principle by the name "universal reign of law." Russell writes that anyone who holds to it dogmatically is being "rash" and is evidencing a "mark of prejudice."[46] He contends that there are phenomena that have not been explained, such as consciousness. He was also speaking within the context of the early developments within quantum theory. He thinks that we should keep the question open and neither assert it nor deny it. He does write, though, that if it is useful in scientific research, it might be adopted while recognizing that its truth is in doubt.[47]

## Causal Closure: A Peircean Analysis

Charles Sanders Peirce's reaction to the mechanical philosophy of his day also suggests that we should not be dogmatic in holding to the causal closure of the physical. Peirce identified two main theses of the mechanical philosophy--necessitarianism and materialism.[48] Necessitarianism is the thesis that the world is deterministicaly governed by a set of strict and absolute laws. So, if you know the state of affairs and the laws

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[46]Bertrand Russell, "Materialism, Past and Present," in The Basic Writings of Bertrand Russell, 1903-1959, ed. by Robert E. Egner and Lester E. Denonn (New York: A Touchstone Book, 1961), 243.

[47]Ibid., 245.

[48]Charles Sanders Peirce, "The Doctrine of Necessity Examined," in Philosophical Writings of Peirce, ed. by Justus Buchler (New York: Dover Publications, Inc., 1955), 325.

governing it, then you can predict all the future states of that system. Kim's causally closed physicalism is very similar to the mechanical philosophy of which Peirce was a critic.

What Peirce found most troubling about the mechanistic philosophy is that it could not account for minds.[49] He writes, "The mechanical philosopher leaves the whole specification of the world utterly unaccounted for, which is pretty nearly as bad as to baldly attribute it to chance."[50] What the mechanistic philosophies leave out are important aspects of the human experience as well as plain features of the world. Peirce's criticism, then, is very similar to my own.

In developing a metaphysical system, Peirce holds that we should start with observation.[51] From those observations we should develop hypotheses to be tested. He writes, "The best that can be done is to supply a hypothesis, not devoid of all likelihood, in the general line of growth of scientific ideas, and capable of being verified or refuted by future observers."[52] What Peirce is proposing is a use of scientific method to study philosphical problems. Unlike Kim, however, his scientific method does not begin with *a*

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[49]Ibid., 335.

[50]Ibid., 337.

[51]Peirce, "The Approach to Metaphysics," 311.

[52]Peirce, "Concerning the Author," 2.

*priori* considerations, such as the causal closure of the physical.[53] Instead, Peirce is committed to explaining our observations, among which are our experiences of causally efficacious consciousness. His scientific method is a public process of fixing beliefs by proposing hypotheses and testing their application.[54]

The causal structure of the universe appears to be governed by laws[55] but these laws need to be explained. He thinks that if there are universal laws then they must have reasons for their existence; that they might stand "inexplicable and irrational, is hardly a justifiable position."[56] What accounts for laws? Peirce's answer is evolution.[57] Evolution is characterized by diversification and growth of order.[58] Out of chaos, things begin to take on habits and these habits eventually take on the character of laws. Thus, the laws themselves arise out of the evolutionary process.[59]

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[53]Again, Kim uses the causal closure principle as an unqeustioned presupposition, and, as will be demonstrated in the next section, a theoretical commitment prior to his exploration of the mind-body problem.

[54]Peirce, "The Fixation of Belief," 18-22.

[55]Peirce, DNE, 324.

[56]Peirce, "The Architecture of Theories," 318.

[57]Ibid.

[58]Peirce, "Synechism, Fallibilism, and Evolution," 357.

[59]Ibid., 358. I wondered how to fit this idea into contemporary cosmology. Without much consideration, I am drawn to the Hartle-Hawking model of the universe proposed by James Hartle and Stephen Hawking. Hawking and Roger Penrose's work on singularities helped lead to the adoption of a Big Bang model of the universe. After that work, Hawking realized that if the universe reaches such small sizes, then quantum forces would drastically affect the cosmos. So, the Hartle-Hawking model proposes a rounded-

Peirce concludes that if laws arise out of evolution, then they are not and cannot be absolute.[60] Instead, laws include "an element of indeterminacy, spontaneity, or absolute chance in nature."[61] Peirce writes that the laws must be open for diversification, spontaneity, and positive creativity; otherwise there would be no evolutionary development. If the laws are absolute, providing for no exceptions, then there would be no growing order and the world would be static. However, our observations tell us that the world is dynamic and that order arises out of chaos. Observation itself cannot substantiate absolute laws--there are always irregularities that need new explanations.[62] He writes, "In view of all these considerations, I do not believe that anybody, not in a state of case-hardened ignorance respecting the logic of science, can maintain that the precise and universal conformity of facts to law is clearly proved, or even rendered particularly probable, by any observations hitherto made."[63] Peirce's claims here were even written prior to the full development and acceptance of quantum theory and its indeterminacy principle.

If physical causation is made flexible in order to conform to our observations and

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off universe (instead of beginning in a distinct point) that in its early stages was highly indeterministic and only randomly arose into order.

[60]Ibid., 359.

[61]Peirce, AOT, 318.

[62]Peirce, "Doctrine," 331.

[63]Ibid.

best science, then Peirce believes we now have room for mental causation.[64] For Peirce's mechanistic contemporaries there was a mind-body problem precisely because the physical world was taken to conform to strict causal relations. The mind clearly did not conform to strict causal laws. In fact, its spontaneity and flexibility are part of the essence of mind, "without which," Peirce writes, "it would be dead."[65] Since mind is clearly not bound by strict laws, if one holds a necessitarian thesis, then one will, in some way, eliminate minds from the natural world. It is interesting that Peirce, in this way, foresaw Davidson and his successors. In fact, this is precisely where Kim has his problem. If physical causal closure is held to dogmatically, then there is no way to explain the causal efficacy of the mind. Kim's *a priori* commitments keep him from successfully developing an answer to the mind-body problem.

For Peirce, however, there is no reason to eliminate minds because physical causation itself is not exact. Thus, by accepting a more accurate picture of physical causation, one can provide the opening that mentality could have a causal influence.

P1) In mechanistic philosophy the physical world is governed by strict laws.

P2) Mentality is not governed by strict laws.

P3) Therefore, there are no psychophysical laws (or mentality has no causal influence in the world).

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[64]Ibid., 335.

[65]Peirce, "The Law of Mind," 348. One should look again in the previous chapter at Chomsky's discussion of Descartes' stance that the mind is separate from matter because the mind is creative.

Peirce grants number 2, but has shown that the physical world is not governed by strict laws. Therefore, he also rejects 3.

As Davidson's anomolism of the mental did, strict physical causal laws are often used to rule out the causal efficacy of mentality. Kim's dilemma has similar problems, even though he is perfectly willing to accept non-strict laws. When we realize that the physical world does not follow strict laws, then we leave open the possibility that mentality, which also does not follow strict laws, can be causally efficacious. Initially all we get is the possibility of causal efficacy. But when we examine our experience and intuition, as Locke did, we have a basic experience of mental causal efficacy.

Even though Kim is perfectly willing to accept that laws are probabilistic or statistical, his commitment to causal closure is still a problem. For Kim, every causal relation must fall under a physical description. As was shown in the previous chapter on physicality, Kim's view of the physical is limited in such a way that possible solutions are not considered. His characterizations of the physical as conforming to objective, indirect descriptions creates the very impossibility of conforming mental descriptions to such physically-described laws. Ultimately, Kim's conflict is between his basic experiences of mental realism and his *a priori* commitments concerning laws, causation, and science (among other possible *a priori* committments). Peirce's philosophy contends that a proper understanding of physical law, different from that of Kim's, does not create this conflict mental realism and causal efficacy.

We now have our response to Kim. We can save the causal efficacy of

consciousness by denying physical causal closure as understood by Kim. When we closely examine the nature of the physical world, we see that it does not follow strict laws, but that laws are open, adaptive, and creative in a way that is more suited to mental descriptions. Kim is worried that denying physical causal closure will threaten science. However, Peirce develops a theory that is intended to be based upon science and to provide for scientific advancement.

## Causal Closure: Concluding Remarks

The main reason that Kim gives for holding to the causal closure principle is so that physics can be complete.[66] Why, I wonder, must I hold more firmly to the completeness of physics than my own experience of mental causation? The latter is a fundamental part of our lives, of our experience, while the former is a purely hypothetical hope on the part of many scientists. The completeness of physics is itself an open, debatable question. Paul Davies, physicist and mathematician, believes that science has limits and cannot probe the ultimate questions, what he calls the "why" questions.[67] He writes:

> But in the end a rational explanation for the world in the sense of a closed and complete system of logical truths is almost certainly impossible. We are barred from ultimate knowledge, from ultimate explanation, by the very rules of reasoning

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[66]I take the completeness of physics to be the thesis that physics can develop a Theory of Everything.

[67]Paul Davies, The Mind of God: The Scientific Basis for a Rational World (New York: Simon and Schuster, 1992), 226.

that prompt us to seek such an explanation in the first place.[68]

Asserting that physics must be complete is a positivistic, *a priori* claim that rests on no solid scientific or empirical evidence. I realize that scientists such as Stephen Hawking are engaged in the search for a complete theory. As Russell said, it is an *open question*. However, like Davies I am convinced that the scientific enterprise is limited.

So, Kim asks that I accept an open and dubious principle. And, by accepting that principle, I must then call into doubt the conjunction of the causal efficacy of the mental and distinctiveness of consciousness. I feel like G. E. Moore; this is my experience of the causal efficacy of my conscious experience. Now give me a premise that I'll find more convincing than that.

The conflict before Kim is between his own *a priori* commitment to physical causal closure and his mental realism. His commitment to physical causal closure is dogmatic. It rests upon a view of causation that is at least an open question and at worst is simply wrong. If one is convinced by the Peircean analysis, then Kim's view of the laws of nature is also faulty. And his position also rests upon the *hope* that physics can be complete. This question is surely open and is suggested by no empirical evidence. Why, then, should these presuppositions commit one to deny the mental realism that Kim supposedly espouses?[69]

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[68]Ibid., 231. He is speaking of various paradoxes and Godelian limits.

[69]See Griffin's article cited above. He has a similar critique of Kim. He cashes it out as a conflict between theoretical and practical reason in Kim. Griffin writes, "But as such it [Kim's physicalism] is still a fallible, revisable opinion, so that it should not be

allowed to veto any of those notions that we cannot help but presuppose in practice (because if we deny them in theory, we are implicitly violating the law of noncontradiction by explicitly denying a notion while implicitly presupposing it)" (12).

# CHAPTER FIVE

# THE NATURE OF EXPERIENCE

## Correspondences

Nature is a temple from whose living columns
Commingling voices emerge at times;
Here man wanders through forests of symbols
Which seem to observe him with familiar eyes.

Like long-drawn echoes afar converging
In harmonies darksome and profound,
Vast as the night and vast as light,
Colors, scents and sounds correspond.

There are fragrances fresh as the flesh of children,
Sweet as the oboe, green as the prairie,
-- And others overpowering, rich and corrupt,

Possessing the pervasiveness of everlasting things,
Like benjamin, frankincense, amber, myrrh,
Which the raptures of the senses and the spirit sing.[1]

This Baudelaire poem beautifully expresses our awe at our own sensory experience. I'm especially drawn to the second stanza, where Baudelaire remarks that our various senses correspond in our experience. His language almost implies that this everyday occurrence is somehow miraculous.

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[1]Charles Baudelaire, "Correspondences," translated by Kate Flores, in Literature of the Western World Volume II: Neoclassicism Through the Modern Period, 3rd. edition, ed. by Brian Wilkie and James Hurt (New York: Macmillan Publishing Company, 1992), 1619.

In this final chapter of the first part of this work, I turn to an analysis of experience. Oh, that our philosophical analysis were as concise and fresh as the poem above. It is my contention that Kim's position on the philosophy of mind fails, ultimately, because it rests upon an inadequate view of experience. The issue to be addressed is both ontological and methodological. A certain ontology will presuppose a certain methodology--e. g. physicalist naturalism presupposes methodological naturalism. But, it is also true that specific methodologies presuppose some specific ontological commitments. It seems, then, that these fundamental issues come in a bundle and rise or fall together.

This chapter will explore Kim's view of experience. I believe his view of experience is inadequate in that his empiricism is limited to sensory input, and even that is understood in the limited Humean sense. My critique will be ontological, phenomenological, and methodological. The next chapter will start Part Two of this work. The first chapter of that section will develop Whitehead's philosophy of experience, which I believe more closely satisfies our criteria of adequacy and applicability.

In exploring the nature of experience, we are addressing the most abstract issue in Kim's philosophy. He does not write specifically on this issue, so it must be culled from his remarks and his commitments. Whitehead is quite explicit what his doctrine of experience is. In dealing with Whitehead, his philosophy of mind will be the most abstract issue which this paper will cover. In effect, this very difference highlights an important methodological distinction between the two authors.

Before turning directly to Kim on experience, there are two preliminary matters to address. First, let me remind the reader of the four criteria that were adopted in Chapter One. I developed a philosophical methodology that holds philosophy to be an attempt to construct a set of beliefs for the individual and the community based upon experience, which set of beliefs is *consistent*, *coherent*, *applicable* to its subject matter, and *adequate* in interpreting the data. Kim's philosophy fails to meet these criteria, which even he can accept.

Secondly, as Nancy Frankenberry points out, empiricism needs to be supported by an adequate theory of experience.[2] Frankenberry sketches a simple categorization of five major types of empiricism. Let us look at her categories, and then locate Kim within this schema.

## Types of Empiricism

First a little background. Frankenberry writes that the word "empiricism" has traditionally been taken three ways. First, it identifies a temperament. This temperament is similar to James' use of the term "tough-mindedness"--the scientific, stubborn reliance upon facts. These are the "Rocky Mountain toughs" in philosophy as opposed to the "tender-foot Bostonians."[3]

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[2]Nancy Frankenberry, Religion and Radical Empiricism (Albany: State University of New York Press, 1987), ix.

[3]William James, Pragmatism, in William James Writings 1902-1910, ed. by Bruce Kuklick (New York: The Library of America, 1987), 491.

Secondly, she writes that "empiricism" has referred to a method of inquiry--"a way of getting at or organizing and interpreting the data of investigation that is broadly instrumental, operational, or experimental."[4]

Mostly, though, it has been used in its third sense. It is this sense with which she and I are concerned. She writes, "Most often, empiricism has signified an 'appeal to experience' in the establishment and justification of claims--a concern for the 'given,' variously construed."[5] This "variously construed" is the source of our present difficulty.

She identifies five different types of empiricism: 1) Classical Empiricism, 2) Logical Positivism, 3) Linguistic Empiricism, 4) Neo-pragmatism, and 5) Radical Empiricism. Overall, she sees a development from the first through the fourth types as a move away from the genetic empiricism of Hume to the justificational empiricism that governs much of contemporary debates in epistemology.

As well she should, she takes Hume as the great exemplar of classical empiricism, identifying three main claims in Hume's empiricism. First is the genetic principle that all knowledge arises from experience.[6] Second is the atomistic principle. This is his claim that *different* implies *distinguishable* implies *separable*, and vice-versa. I have addressed that issue in chapter four. As we saw there, it is improper to conclude that *separable* follows

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[4]Frankenberry, 2.

[5]Ibid., 3.

[6]Note, I'm not too concerned with sketching all of her remarks and criticisms of the various types of empiricism. Her criticisms of Hume quite closely follow those of Merrill.

from *different*. Finally, Hume holds to an associative principle to explain how we associate our ideas. Herein lies her discussion of Humean causation, with which issue we have already concerned ourselves.[7] Basically, Hume's doctrine of experience is that experience comes in atomic units and is limited to our sense perception. Hume's view is sometimes called *sensationalism*.

We are all familiar with logical positivism and its various failures. She recounts these and places special emphasis on the criticisms developed by the next two schools. The positivists developed Humean sensationalism. These atomistic inputs of the five senses they termed "sense-data." In Ayer's *Language, Truth and Logic* we can see this reliance upon Hume's sensationalism. In the opening of the first chapter, "The Elimination of Metaphysics," he challenges the metaphysician to demonstrate how his metaphysics is developed from the senses.[8] Also, he writes that Hume "conclusively showed" that no event is intimately connected to another.[9] Logical positivism passed quickly from the stage, but not before causing some serious problems.

The next stage in development was Linguistic Empiricism. She writes that linguistic empiricism developed no specific theory of experience. Instead, it analyzed linguistic habits, an important and basic part of conscious experience. By limiting itself

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[7]See Frankenberry, 38-51.

[8]Alfred Jules Ayer, Language, Truth and Logic, 2nd edition 1946 (New York: Dover Publications, Inc., 1952), 33.

[9]Ibid., 47.

to discussing linguistic habits, and overlooking any evidence that was non-linguistic, this stage in empiricism limited "experience" to conceptual knowledge.[10]

Frankenberry labels the next important stage "Neopragmatic American Empiricism." Its luminaries include Wilfrid Sellars, W. V. O. Quine, Donald Davidson, and Richard Rorty. She writes, "Long-standing problems with the thesis of 'genetic empiricism' about the causal origins of knowledge have been superseded by versions of 'justificational empiricism' or theses about the proper criteria for appraising knowledge claims."[11] As such, this school moves further away from primitive experience, per se, and towards a search for justification that is "holistic, contextualistic, and historicist."[12] Frankenberry even goes so far as to label this "postempiricist philosophy." These developments occur through work of each of these four major luminaries.

Frankenberry credits Wilfrid Sellars with inspiring the critique of foundationalist epistemology. According to Sellars, there is no basic experience that can be taken on its own. Instead, it must be experienced within a contextual framework which presupposes linguistic knowledge. Sellars turned from questions about the acquisition of knowledge to questions of the justification of knowledge and claimed that justification is a public matter.[13] The next major development was Quine's attack on the two dogmas to wit: she

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[10]Frankenberry, 58-9.

[11]Ibid., 68.

[12]Ibid., 69.

[13]Ibid., 70-1.

writes that the outcome of this famous work was that "justificatory procedures . . . [are] historically evolved conventions. We choose among them according to our various interests and procedures."[14] Next, Donald Davidson rejected the third dogma of empiricism--the dualism of scheme and content. Of Davidson, she writes, "In the end, he tells us to give up dependence on the concept of an uninterpreted reality, something outside all schemes and science."[15] There can be no division between an uninterpreted world and the conceptual schemes used to interpret the world. Rorty stands at the end of this work and concludes that pragmatism is what survives: "Epistemic authority is to be explained by reference to 'what society lets us say' rather than by appeal to inner privileged representations or to privileged discourses, whether of the natural sciences or of the social sciences."[16] There is not any independent objective standard to which we can appeal to settle issues of epistemic justification. Instead, we must warrant our beliefs within the accepted social practices because these are all that we have.

The fifth and final form of empiricism stands outside these three twentieth-century schools and is a critique of the classical empiricism embodied in David Hume. An important part of what makes "radical empiricism" radical is that it claims that relations can be experienced. Thus, it rejects the atomistic principle of Hume's empiricism. Experiences do not come in neatly packaged little units; they come in a

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[14]Ibid., 73.

[15]Ibid., 74.

[16]Ibid., 75.

"stream of consciousness," to borrow William James' phrase. In Chapter Six I will present Whitehead's theory of experience. which is a form of radical empiricism. Now let me discuss Kim's relation to this schema, his own theory of experience, and my basic critique.

## Kim on Experience

As I wrote above, Kim does not explicitly develop a philosophy of the nature of experience. One must examine his writings to discover where his commitments lie. Considering the schema just presented, Kim falls somewhere along the lines of twentieth-century developments of classical empiricism. I contend that Kim is a linguistic empiricist, though influenced by some members of the neopragmatic camp, particularly Quine and Davidson.

In the previous chapter we have seen the interplay between Kim's *a priori* commitments and his views on experience. His *a priori* commitments to a notion of science limit his approach to the issue of causation. As I will demonstrate, his commitment to mental realism is itself presented by Kim as an *a priori* commitment of practical reason instead of being presented as the outcome of direct experience, which is Locke's position. Nancy Frankenberry writes that Linguistic Empiricism limited experience to conceptual knowledge.[17] Kim clearly falls into this camp because of his explicit espousal of a Kantian picture of practical reason.

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[17]Ibid., 58-9.

He writes:

> Why should the case of the mental be different [from physical]? This is a question of crucial importance to the status of the mental in our scheme of things. I think there is an answer, though this may not be Davidson's. The intentional psychological scheme -- that is, the framework of belief, desire, and will -- is one within which we deliberate about ends and means, and assess the rationality of actions and decisions. It is the framework that makes our normative and evaluative activities possible. No purely descriptive framework such as those of neurophysiology and physics, no matter how theoretically comprehensive and predictively powerful, can replace it. As long as we think of ourselves as reflective agents capable of deliberation and evaluation -- that is, as long as we regard ourselves as agents capable of acting in accordance with a norm -- we shall not be able to dispense with the intentional framework of beliefs, wants, and volitions. This again sounds Kantian: our commitment to the intentional framework is a reflection of our nature as rational agents, and our need for it arises out of the demands of practical reason, not those of theoretical reason.[18]

Though here Kim is talking of intentional states as opposed to states of subjective consciousness, a point that requires further comment, he is deliberately setting himself up for conflict. If it is the *a priori* nature of the mind that scientific, and presumably "empirical," discussions cannot describe it, then it follows that one is creating a type of duality between the mental and the physical that, *a la* Descartes, creates a problem when trying to explain their interaction.

One possible response is that we can give up our normative intentional framework. Quine, clearly, espouses that view, but Kim does not.[19] For the time being, allow the quote above to serve as evidence of Kim's location within the schema as a linguistic

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[18]Kim, SM, 214-15.

[19]Kim has a very cogent critique of Quinian naturalized epistemology in the chapter entitled "What is 'naturalized epistemology'?"

empiricist because of the role of conceptual knowledge in limiting his empiricism.[20]

Now then. at least one passage might call into question whether Kim is a linguistic empiricist. Is it possible that he has some thread of radical empiricism in his philosophy, despite our examination in the previous chapter? He does see the world as interconnected and interdependent. He writes, "We think of the world around us not as a mere assemblage of unrelated objects, events, and facts, but as constituting a system, something that shows *structure*, and whose constituents are connected with one another in significant ways" (emphasis his).[21] Too bad for Kim that he uses the verb *to think* instead of *to experience*! He calls this conception of an interconnected cosmos "fundamental to our scheme of things." Is it plausible that we should interpret Kim as allowing for an interconnected world in the sense of James' radical empiricism?

Unfortunately, we are not. Kim takes this interrelationship as being a relationship of dependence and that dependence is primarily causal. He writes that causation is what interconnects "Hume's atomistic world."[22] As was developed in the previous chapter, a commitment to Humean atomicity in experience, and particularly a broadly Humean view of causation, is an inadequate approach to experience.

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[20]By "conceptual knowledge" here I do not mean to imply that I have misread Kim, who clearly says that these aspects of mentality do not derive from our theoretical reason. The distinction is that between Kim and Locke, who holds that our *direct experience* gives us knowledge of mental efficacy.

[21]Ibid, 53.

[22]Ibid., 53-4.

I think it can be safely asserted that Kim is a linguistic empiricist according to Frankenberry's schema. I want to take a few minutes to explore what I call "Kim's Kantianism."

## Kim's Kantianism

In the passage cited above, Kim's conclusion implies a Kantian distinction between empirical knowledge and rational knowledge. He states that our picture of the mental is not based upon empirical, scientific investigation. Instead it rests upon requirements of our practical reason. One might initially respond that in the section quoted he is merely concerned with our intentional framework. However, in the broader context of the chapter which this paragraph concludes, it is clear that Kim intends his arguments to include the totality of mental life. In fact, the quoted selection comes at the end of a section in which Kim says that there are really only two positions open in the philosophy of mind--the eliminative physicalism of Quine or the dualism of Davidson. It is clear in these paragraphs that he is concerned with mentality as a whole.

In this context, his statements about Kant are really a defense of Davidson as against Quine. Both Quine and Davidson reject the interactionist dualism of Descartes, but conclude different things from that. Davidson's anomalous monism results in a non-interactionist dualism that Kim rightly considers to be similar to Kant's views.[23] Kim writes that we are really unable to take the Quinian path because of the strength of our

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[23]See Ibid., 211-13.

mental life and the sense that it is needed to explain human action (and presumably he also means, *a la* Kant, that some basis for ethics is provided by the "intentional framework"). I agree that the strength of our mental life is what leads us to reject Quinian eliminativism. What I have difficulty with, however, is Kim's claim that our commitment to the reality of our mental life results from our practical reason and not from our immediate experience of our mental life.

Lewis White Beck, in his commentary on Kant's Second *Critique*, characterizes practical reason as follows: "the phenomenon of responding to meanings according to conceptions of rules and laws and of mobilizing our resources to withstand the importunities of momentary impulses . . . ."[24] Beck describes the practical reason as that faculty by which a rational agent pursues goals according to plans, principles, or laws. He writes that they can be specific rules like writing one's name on the flyleaf of all of one's books or even vague life-principles like *Carpe diem*.[25] Practical reason, then, is the part of our rational faculty that eventuates in action.

Kant's overall project in developing his views on practical reason was to etch out a basis for his ethics. He believed that freedom and belief in God and immortality were postulates or requirements that ethics presupposed. However, these could not be based in any knowledge derived from experience. Thus, Kant's project was to find the *a priori* basis

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[24]Lewis White Beck, A Commentary on Kant's *Critique of Practical Reason*, (Chicago: University of Chicago Press, 1960), 36.

[25]Ibid., 35.

for ethics.

Kant was largely convinced by the Humean picture of experience. He wrote, in agreement with the British empiricist tradition, that experience in the form of natural science cannot reveal the internal make-up of objects.[26] Kant concluded, "The world of sense contains merely appearances, which are not things in themselves, but the understanding must assume these latter ones, viz., noumena."[27] Except for the existence of a noumenal realm, his claims fit within the classical empiricist tradition. The things-in-themselves, then, merely become noumena, which are, in a sense, postulated. This critical philosophy is in some ways the forefather of the work by Quine and Davidson, as Kim correctly notices. It is easy to dismiss the noumena because they are not based on experience and can't be. This problem, however, is also Kim's. He claims that the existence of an efficacious mind is merely a postulate of practical reason. That he does not appeal to direct experience implies that he does not think our belief in an efficacious mind is drawn from direct experience. At this point we see the origin of his later difficulties with mentality.

Kant is clear that the basic principles of metaphysics transcend experience.[28] He

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[26]Immanuel Kant, Prolegomena to Any Future Metaphysics that Can Qualify as a Science, trans. by Paul Carus, tenth printing (Chicago: Open Court Publishing Company, 1902, 1993), 123. Russell makes similar claims in Analysis of Matter, but based upon a different set of arguments.

[27]Ibid., 133.

[28]Kant, Critique of Pure Reason, trans. by Norman Kemp Smith (New York: St. Martin's Press, 1965), 7.

intends to examine these principles to discover which are necessary rules of reason and which lie beyond the available evidence. He writes:

> But though all our knowledge begins with experience, it does not follow that it all arises out of experience. For it may well be that even our empirical knowledge is made up of what we receive through impressions and of what our own faculty of knowledge (sensible impressions serving merely as the occasion) supplies from itself. If our faculty of knowledge makes any such addition, it may be that we are not in a position to distinguish it from the raw material, until with long pracitice of attention we have become skilled in separating it.[29]

I am intrigued by the similarities with Quine, but that is not to the point. Kant sees his philosophy as providing the guidelines with which to make that distinction. Kim, in a way, is pursuing a similar project. *Supervenience and Mind* functions as an extended argument against nonreductive physicalism, by illustrating that it is a metaphysical view that cannot survive critical analysis. For Kant, the critical philosophy is needed because the knowledge in question is not based upon experience. I have already accused Kim of holding to *a priori* concepts over direct experience; that problem continues because of his espousal of this Kantian distinction.

Though Kant admitted that all knowledge begins from experience, not all of it comes directly from experience. In fact, Kant holds that "rational knowledge and knowledge *a priori* are one and the same."[30] Even Kant's practical reason is *a priori* or

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[29]Ibid., 42.

[30]Kant, Critique of Practical Reason, trans. by T. K. Abbot (Amherst, NY: Prometheus Books, 1996), 22.

"absolutely independent of all experience."[31]

I don't assume that Kim fully accepts the Kantian critical philosophy, but even his espousal in this one place is revealing. Kim is clear that our allegiance to the reality of our mentality is a result of our practical reason and not any scientific endeavour or direct experience. Thus, mind is a matter of *a priori*, conceptual commitments. Later in *Supervenience and Mind* when he is confronted by the dilemma of rescuing causal efficacy or consciousness, he cannot make a Lockean appeal to direct experience. He cannot make that appeal because he has not based his views of mind upon direct experience. Instead, they have been based upon these conceptual considerations. Again, we must ask if these presuppositions are what really engender the dilemma, and we must answer in the affirmative. But, if we merely re-examine the presuppositions, then the dilemma, as framed, evaporates.

## Concluding Remarks

The outcome of this exploration is that Kim's methodology places great importance on various *a priori* considerations, whether they be the practical, normative functions of our intentional framework or the theoretical commitments of his views of physicality and causation. Kim's appeals to direct experience are limited. When they do occur, they are based on a view of experience that is largely indebted to classical

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[31]Kant, PURE, 43.

empiricism and its greatest exponent--David Hume. The previous chapter, in the context of a discussion of causation, pointed out some of the problems with Hume's philosophy and any developments based upon its view of experience. This chapter has also shown that there are other positions on this fundamental issue, one of which will be explored in greater detail in the next chapter.

As philosophers, committed to the pursuit of truth, and the search for a theory that is adequate, we must examine the doctrine of experience. If there are data provided by experience that are not covered by classical empiricism and its heirs, then these forms of empiricism are inadequate. If they are inadequate, then they fail according to the methodolgical criterion adopted. In the next chapter we will discover some of those data.

# CHAPTER SIX

## THE NATURE OF EXPERIENCE II

Classical empiricism will not solve all of our problems in the philosophy of mind. The very view of experience is too limited. Fred Dretske illustrates this point. In his *Naturalizing the Mind*, he declares in the Prologue that he does not have the space to discuss some topics that are relevant. He particularly sites proprioception, which is our experience of our own body. He writes that proprioception "is the source of some of our most obtrusive experiences (pain, hunger, thirst, etc.)."[1] He goes on to say that including proprioception would not dramatically change his theory. However, if one looks at two statements made on the first page of his text, one sees that he has begged the question against the Lockean experience of bodily causal efficacy in favour of the limited sensory empiricism of Hume. Dretske writes, "Sense experience is the primary locus of consciousness."[2] And, "My experience of an object is the totality of ways that object appears to me, and the way an object appears to me is the way my senses represent it."[3] Dretske limits experience to sense perception, as does Kim. This chapter will illustrate why experience cannot be limited to mere sense perception by defending the radical empiricism developed by William James and enriched by Alfred North Whitehead.

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[1]Fred Dretske, Naturalizing the Mind (Cambridge, MA: The MIT Press, 1995), xv.

[2]Ibid., 1.

[3]Ibid.

## James' Radical Empiricism

Radical empiricism, James writes, "must neither admit into its constructions any element that is not directly experienced, nor exclude from them any element that is directly experienced."[4] In this initial formulation James doesn't seem to be very different from Hume. However, one quickly sees that James takes experience to be something much broader than Hume does. The major difference is that James asserts that the relations between things are experienced--"*the relations that connect experiences must themselves be experienced relations, and any kind of relation experienced must be accounted as 'real' as anything else in the system*" (italics his).[5] According to James, if relations are to be admitted into philosophy then they must be experienced. He does not conclude from this claim, however, that since no relations are experienced, then they must be excluded from philosophy. Quite the contrary, he holds that relations are experienced and are as real as any other part of the philosophical system.

James criticizes "ordinary empiricism" for overlooking the conjunctive as well as disjunctive relations that present themselves to experience. In fact, he thinks that overlooking these connections has invited the problems of modern philosophy. He writes, "The natural result of such a world-picture has been the efforts of naturalism to correct its incoherencies by the addition of trans-experiential agents of unification, substances,

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[4]William James, "A World of Pure Experience" in William James: Writings 1902-1910 (New York: The Library of America, 1987), 1160.

[5]Ibid.

intellectual categories and powers, or Selves."[6] James claims that the concept *substance* is unnecessary if one is merely a radical empiricist, because one doesn't need a trans-empirical unifying factor. He also says that a radical empiricist would never have had to invent the concept of an enduring entity labelled the "Self." James presents radical empiricism as an outlook to solve problems, and, as such, it has three parts.

According to James, radical empiricism "consists first of a postulate, next of a statement of fact, and finally of a generalized conclusion."[7] The *postulate* is a rephrasing of the quote that opened this section. Only things experienced can be used to form philosophical systems. The *statement* is that relations are as much a matter of experience as the things themselves. The *general conclusion* is:

> the parts of experience hold together from next to next by relations that are themselves parts of experience. The directly apprehended universe needs, in short, no extraneous trans-empirical connective support, but possesses in its own right a concatenated or continuous structure.[8]

He finds that the greatest obstacle to his view is that empiricists take the world as disjoined but don't take it as immediately given that the connections are as given as the disconnections.[9]

What does he mean that experience itself unifies the world? James claims that he

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[6]Ibid., 1161.

[7]James, The Meaning of Truth in Writings, 826.

[8]Ibid.

[9]Ibid., 827.

does not find in experience the dualism between knower and known, between subject and object. He thinks that these categories are added to experience by our intellect.[10] He writes that a single unit of experience is taken as a knower in one context and as the known in a different context. This view is James' doctrine of pure experience as the fundamental units in ontology. In this chapter my concern is not with ontology, so I won't be developing James' comments further or critically evaluating them on this point. I include them to indicate what James himself concluded from his radical empiricism. I am concerned with what ontology Whitehead developed from radical empiricism and will be arguing those points in the remaining chapters of this work.

Let me return to James' "statement of fact." It is in the *Principles of Psychology* that James argues that relations are experienced. James is critical of classical empiricism for following a "synthetic" method when doing psychology. The synthetic method discusses mental faculties by building them up out of atomic units. He writes:

> But it [the synthetic method] commits one beforehand to the very questionable theory that our higher states of consciousness are compounds of units; and instead of starting with what the reader directly knows, namely his total concrete states of mind, it starts with a set of supposed 'simple ideas' with which he has no immediate acquiantance at all, and concerning whose alleged interactions he is much at the mercy of any plausible phrase.[11]

His analytic method begins with what is given in experience, its totality, and analyses it

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[10]James, "Does 'Consciousness' Exist?" in Writings, 1144. Note, that Russell agreed with James on this point, though he didn't accept his pragmatic theory of truth. See Russell's essay on James in A History of Western Philosophy (New York: Simon and Schuster, 1995, 1945).

[11]James, Psychology (Cleveland: The World Publishing Company, 1948), 151.

into units. The synthetic method starts with an abstraction with the hope of ending up with something akin to everyday experience.

The first obvious fact of human experience is that it does not come in atomic units but as a stream with one moment leading to the next and following from the antecedent. Even when there is a break in consciousness, e. g. sleep, the next conscious moment picks itself up as continuing the previous stream and being part of it. My favourite example of James' is of thunder. He writes that when we first hear the loud crack of thunder, we hear not only the crash but "thunder-breaking-upon-silence-and contrasting-with-it."[12] We hear not only the sound of the thunder but *the end of silence.* This illustration vividly recalls various Oklahoma spring thunderstorms; and I am especially reminded of my feelings as a child. Another clear example of duration of experience involving thunder is when one sees the flash of lightning prior to the sound. My undergraduate institution held a convocation every fall in the chapel. The faculty and staff sat in the choir loft that was backed by a huge stained glass window depicting the history of the State of Oklahoma. One year a thunderstorm rolled in during the sermon. The students in the audience saw an incredibly bright flash of light in the window, and you could sense their preparation for the coming thunder. The faculty were oblivious to the light flash and so were caught unawares by the violent sound.

James characterizes some of the multitude of relations that we experience. He

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[12]Ibid., 159.

writes that "Relations are of different degrees of intimacy."[13] The basic connection is a sense of *withness*. James takes prepositions to signify the different relations that we experience. Withness is followed by temporal connections of simultaneity and time-interval. Spatial relations are the next degree. Beyond these come a variety of relations: similarity and difference, activity--including change, tendency, resistance, and causal order, and conscious experience. All of these are experienced relations.

For humans the fundamental sense of withness comes from our bodily experience. James thinks that our experiences, taken together, are rather chaotic. However, they do center around one nucleus--the bodily experience. He writes:

> The nucleus of every man's experience, the sense of his own body, is, it is true, an absolutely continuous perception; and equally continuous is his perception (though it may be very inattentive) of a material environment of that body, changing by gradual transition when the body moves.[14]

Here is a clear difference between James and Dretske. Dretske finds bodily experience to be something that can be dealt with later. James finds it to be the centerpiece of human experience. Our whole relationship to the world is built up from our experience of our

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[13]James, WPE, 1161.

[14]Ibid., 1171. The early nineteenth-century philosopher Mary Shepherd also made some emphasis of the role of the body in sensation. Against Berkeley, she writes, "For in the general conscious perception of sensible qualities, are included the knowledge that the organs of sense are used, as mechanical instruments acted upon by certain causes, and the IDEAS [*sic*] of these causes." She also claims that the role of the body is what distinguishes sensation from memory (unlike Hume); she writes, "the consciousness that the organs of sense are used, makes all the difference between objects of sense, or objects of memory, reason, or imagination." See "Selections from Essays on the Perception of an External Universe" in Women Philosophers of the Early Modern Period, ed. by Margaret Atherton (Indianapolis: Hackett Publishing Company, 1994), 152-53.

own bodies. This bodily experience is also something different than ordinary sensory knowledge. Proprioception does not come directly to us through the five senses. Rather, it is its own form of experience.

James is asserting that there is an experience more fundamental than sensory experience of the classical empiricist variety. Look again at Dretske's statements that "Sense experience is the primary locus of consciousness;" and, "My experience of an object is the totality of ways that object appears to me, and the way an object appears to me is the way my senses represent it." If there is a level of experience more basic than sense perception, then Dretske has based his views of the mind upon a higher-order property, possibly even an abstraction from a more fundamental reality. What is so surprising is that Dretske's preface admits that proprioception is something different. He simply fails to recognize that it is indicative of a level of experience that lies below sensory experience.

What James finds as a matter of intuition, Whitehead develops into a complete system. Whitehead considered James a great genius. He ranks him along with Plato, Aristotle, and Leibniz as a genius at assembling data which can then be developed into philosophical systems.[15] He also considered James as representing a new era in philosophy in the same way that Descartes had represented the birth of modern philosophy.[16] At the

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[15]Alfred North Whitehead, Modes of Thought (New York: The Free Press, 1938), 3.

[16]Whitehead, Science and the Modern World (New York: The Macmillan Company, 1925),143.

end of his treatment of James in *Science and the Modern World*, Whitehead writes:

> We are aware of nature as an interplay of bodies, colours, sounds, scents, tastes, [illegible] displayed as in space, in patterns of mutual separation by intervening volumes, and of individual shape. Also the whole is a flux, changing with the lapse of time. This systematic totality is disclosed to us as one complex of things.[17]

This quote is one that James would have liked. Let me now turn to Whitehead's work to demonstrate how he develops a system around two modes of perception.

## Whitehead's Two Modes of Perception

In his insightful little book *Symbolism*, Whitehead recognizes an oft-overlooked fact. He writes, "The word 'experience' is one of the most deceitful in philosophy."[18] The fact Whitehead is acknowledging is that "experience" is not a clearly defined term. It is used by many philosophers in different senses, as we have explored in the previous chapter. Whitehead also finds it of the utmost importance to explore the nature of experience, because, with most modern philosophers, he finds human experience to be the key element in developing philosophical theories. Therefore, a proper understanding of experience is essential to any adequate philosophical system. This fact is often overlooked by philosophers, whose important presuppositions are not explicitly stated and defended. It is to Dretske's credit that he states, even briefly, what his doctrine of experience is, even if

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[17]Ibid., 145.

[18]Whitehead, Symbolism: Its Meaning and Effect (New York: Fordham University Press, 1927), 16.

that doctrine is inadequate in itself. Dominant contemporary views in the philosophy of mind largely rest upon some form of classical empiricism, a suspect doctrine, as James has demonstrated. A careful analysis of experience is, thus, called for.

Whitehead identifies two modes of perceptual experience--[19] perception in the mode of presentational immediacy and perception in the mode of causal efficacy. I believe that Whitehead's analysis of experience is his single greatest contribution to philosophy. Even someone who is unwilling to accept his arguments about time, mentality, propositions, God, creativity, being, etc., should feel the force of his analysis of experience. In it resides the single sharpest critique of classical empiricism, particularly as it is developed by David Hume. That great contribution is that Whitehead identifies *two* modes in perception where classical empiricism only explicitly identified one mode--presentational immediacy. Not only are there two modes, but causal efficacy is identified as the *fundamental* and *primary* mode of experience. Herein lies a fundamental re-thinking of modern philosophy.

Presentational immediacy is the sense experience of classical empiricism. It is the perception of Hume's *impressions* and of Russell's *sense data*. As I look out on this March afternoon and see the bright yellow of the forsythia in the backyard, I engage in perception in the mode of presentational immediacy. I perceive, with my eyes, yellow visual stimuli. These visual sensations are examples of presentational immediacy. It is a further

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[19]Whitehead discusses three modes of experience. The third, conceptual analysis, he does not call a perceptual mode; Ibid., 17.

inference to conclude that the yellow sensations come from the forsythia bush in the backyard. Whitehead more carefully defines presentational immediacy:

> Presentational immediacy is our immediate perception of the contemporary external world, appearing as an element constitutive of our own experience.[20]

My contemporary experiences include the visual images of the computer screen, the sounds of *The Dave Matthews Band* coming from my stereo in the living room, the feeling of pressure from sitting in this chair, etc. Together these sense impressions form my current perceptions of the external world. Pure presentational immediacy is our perceptual experience devoid of the large amount of inference, interpretation, and symbolic reference that normally enters into experience. My list of experiences above involves inference, interpretation, and symbolic reference. The pure, presentationally immediate perceptions are a set of coloured visual stimuli; auditory stimuli of various pitches, frequencies, emotional valuations, etc.; and a feeling of pressure. On these points, Whitehead is in agreement with the philosophical tradition.

Whitehead differs in recognizing the more fundamental mode of perception--causal efficacy. We have already broached this subject in our discussion of Whitehead's criticisms of Hume's view of causation. If we experience only in the mode of presentational immediacy, then Hume is correct, and we must dismiss causation, identity, memory, etc. from the realm of direct evidence. Presentational immediacy gives us no

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[20]Ibid., 21.

knowledge of causal connections in the world, including our causal past. However, Hume did not look deep enough. If we rely only upon presentational immediacy, then we end with what Santayana calls "solipsism of the present moment." Whitehead read Santayana as the natural outcome of classical empiricism. Hume's habit and Kant's noumena are attempts to escape this solipsism. Whitehead writes of the disciples of Hume and Kant that "Both schools find 'causal efficacy' to be the importation, into the data, of a way of thinking or judging about those data."[21] So, causation retreats to being an aspect of our thinking about the world, not an aspect of our experiencing the world.

What Whitehead discovers is that instead of causal efficacy being an abstraction of reason, it is in fact a more primitive mode of *experience*. For Hume and Kant, action in accord with causal efficacy should only be found in higher-grade organisms capable of conscious thought. However, exactly the opposite is the case. Behaviour resulting from perception of causal efficacy is, in fact, *more* apparent in lower-grade organisms. A clear example is the amoeba that comes into contact with a nutritive particle and encloses itself around it. Another example is a flower that turns to follow the course of the sun. Causal efficacy is most obvious as a sense of conformation of the present moment to the immediate past. Whitehead is correct that even organisms of very low grade exhibit such behaviour. Because we are a higher-grade organism and can experience presentational immediacy and the even higher levels of conceptualization, we can easily overlook the

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[21]Ibid., 39.

more fundamental mode.

For humans, it is more apparent in emotions. Whitehead identifies anger and terror as indicating a dependence "upon a vivid apprehension of the relevance of immediate past to present, and of the present to the future."[22] George R. Lucas, Jr. rightly identifies Whitehead's mode of causal efficacy with James' view of the stream of consciousness as a "blooming, buzzing confusion."[23] In a wonderful passage, referred to in Chapter Four, Whitehead writes:

> Most living creatures, of daytime habits, are more nervous in the dark, in the absence of familiar sense-data. But according to Hume, it is the very familiarity of the sense-data which is required for causal inference. Thus the sense of unseen effective presences in the dark is the opposite of what should happen.[24]

In the mode of causal efficacy we directly experience the relations between objects in our field of experience. Besides emotional experiences, the clearest case in human experience is the experience of our own body, as James indicated. We clearly experience *with* our bodies. We see *with* our eyes; taste *with* our mouths; feel pressure *in* and *with* our bodies.[25] Further, proprioception functions as a form of causal efficacy. As already quoted, Whitehead refers to this bodily experience as "an ever-present" part of experience.[26] These fundamental aspects of perception cannot be explained by a classical

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[22]Ibid., 42.

[23]George R. Lucas, Jr., The Rehabilitation of Whitehead: An Analytic and Historical Assessment of Process Philosophy (Albany: SUNY Press, 1989), 89-90.

[24]Whitehead, S, 43.

[25]Hume himself acknowledges these facts: THN, 15-16.

empiricism that limits perception to phenomena of sensation.

Causal efficacy presents us with vague data about the external world. The exception is the experience of our own bodies.[27] One of the major differences between causal efficacy and presentational immediacy is that the latter can be broken down more easily into distinct regions, even though this analysis is not ultimately exact. For example, the yellow field of visual stimuli is separated from the pink field (coming from a redbud in the early stages of bloom, located not far from the forsythia). However, as the impressionists have, so successfully, pointed out to us, the visual field of the forsythia blurs into the regions around it. I like Renoir paintings because they so carefully and wonderfully illustrate this fact of our experience. Often a central figure is painted in more precise detail and the features of other characters and the landscape blur the farther one moves from this "focused-on" character.

Perception in the mode of causal efficacy does not even have this limited form of distinctness. Again, one should think of walking through a woods at night. One has feelings of presences, but their locations, size, nature (and possible intent?) remain vague. However, with the body, the experience is not quite as vague. I currently have a mild ache in my back. Causal efficacy is more clearly able to separate the various regions of our body and present us with a more precise feeling of locality. Thus, experiences like eye strain.

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[26]Whitehead, PR, 312. See also MT, 114-15.

[27]Ibid., 170.

Our bodily experiences, then, are the strongest examples of perception in the mode of causal efficacy. They also provide us with easy examples of the integration of the two modes.[28] Whitehead calls this integration "symbolic reference." This symbolic reference is the conceptual mode of our experience. It is a form of symbolism because we identify the visual sensa with an object. The sensa are symbols for the object, and in our higher grades of experience we integrate the two. Let me use an example from the body. One has an itchy feeling in the back of the left hand. Itchy feelings are clear examples of a feeling that gives one some kind of regional localization, but one that is not very precise. When one looks at the hand, one can often locate the source of the itchy feeling as the little red spot. The data come from two sources--the causal feeling of a region of itchiness and the visual perception of a red spot. These are integrated in our experience. This example also indicates a further fact about experience. One can test to see whether this integration is correct by scratching the little red spot.

As was demonstrated in the last chapter, when Kim is faced with his dilemma he cannot make a Lockean appeal to direct experience. For him, mentality is a matter of our practical reason and not direct experience. As we move towards Whitehead's views on the mind, we see that he includes data overlooked by Kim. Kim's doctrine of experience is

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[28]For a nice secondary presentation of Whitehead's doctrine of perception, see the chapter entitled "Perception" in Rasvihary Das, The Philosophy of Whitehead (New York: Russell and Russell, 1964).

limited to classical empiricism, which invites problems related to subjective experience and causal efficacy. It invites these problems because it fails to grasp the fundamental mode of perception--causal efficacy. Kim can entertain doubts about mind-body causal relations. A Whiteheadian cannot entertain such doubts because they violate her basic data, her fundamental experiences.

The matter cannot be left here because many questions remain. The following chapter will explore Whitehead's views on causation, which will include a further examination of feeling and a discussion of time.

# CHAPTER SEVEN

# CASUAL EFFICACY

George R. Lucas, Jr. writes that the term and concept of perception in the mode of causal efficacy was not first conceived by Whitehead. Rather, Bertrand Russell initially introduced the idea, though it was left to Whitehead to develop it.[1] Perception in the mode of causal efficacy is our fundamental mode of experience; it gives us our basic knowledge of the world. Through it we experience our relatedness or connectedness with the world and the interrelation of the experienced world. In this chapter, I will explore Whitehead's doctrine of causation. His view evades the atomism of Humean views that leads to difficulties when attempting to explain mental causation.

## The Interconnected Cosmos

Whitehead did not call his philosophy "process philosophy"; he called it "the philosophy of organism." It was this organic thinking that initially attracted me to Whitehead while a freshman in Intro to Philosophy. Whitehead's organic philosophy seemed to present a good ground from which to base a more ecologically-oriented worldview. Whitehead was compelled to this organic thought by an number of influences. Chief among these were developments in science during his lifetime. He particularly was

[1]George R. Lucas, Jr., The Rehabilitation of Whitehead: An Analytic and Historical Assessment of Process Philosophy (Albany: State University of New York Press, 1989), 114.

impressed by the organic character of the atom as it was described by developments in atomic theory. Evolutionary theory, though less important an influence on Whitehead the mathematician and physicist, also compels one to a view of the world that emphasizes development, growth, and relations between entities. In the twentieth-century, there were the developments in physics, particularly relativity theory that also emphasized interconnections. An important early influence on Whitehead was his reading of the Romantic poets.[2] They were critical of early modern science and philosophy for viewing nature as devoid of values and aesthetic qualities. One can hear the emphasis on an interrelated world in the opening lines to Wordsworth's autobiographical poem *The Prelude*:

> Oh there is blessing in this gentle breeze,
> A visitant that while it fans my cheek
> Doth seem half-conscious of the joy it brings
> From the green fields, and from yon azure sky.[3]

As evidenced in the lines just quoted, the Romantic poets emphasized the *organic* nature of the cosmos over against the *mechanistic* view of early modern philosophy. Whitehead seemed to think that human thought was undergoing a paradigm shift from this early scientific view to a more organic view that emphasized interrelations.

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[2]See the chapter "Romantic Reaction" in Science and the Modern World (New York: The Macmillan Company, 1925). For a fuller treatment that discusses Whitehead's similarities with Wordsworth, Emerson, Whitman, and other poets, including some Chinese poets, see Mary A. Wyman's charming book The Lure for Feeling (New York: The Philosophical Library, 1960).

[3]William Wordsworth, The Works of William Wordsworth (Hertfordshire, UK: Wordsworth Editions, Ltd., 1994), 632.

In *Modes of Thought*, he writes that "The notion of a mere fact is the triumph of the abstractive intellect."[4] Our primary experience is of an interconnected world. We begin to view the world as isolated facts only because of the limitations of our finitude that create an inability to cognize totality. He famously writes, "Connectedness is of the essence of all things of all types."[5] Abstraction, in itself, is not the problem, because we abstract often because we need to. But, when we abstract, we leave something out. For example, Whitehead thinks that mind and body, as traditionally conceived, are abstractions that overlook our fundamental experience of their interaction. I think Whitehead would say that you can only get to a dilemma that makes you choose between mental causal efficacy and mental subjectivity if you are basing your view of the mental upon an abstraction. I take Whitehead to be convinced with Locke that the experience of mental causal efficacy upon the body is basic to human experience. The following two chapters will deal more thoroughly with Whitehead's discussions of mentality and physicality.

The problem with abstraction comes when we take the abstraction for the concrete. Whitehead calls this the Fallacy of Misplaced Concreteness. It occurs when we abstract from experience, from reality, but then proceed later in our thought to view that

[4]Alfred North Whitehead, Modes of Thought (New York: The Free Press, 1938), 9.

[5]Ibid.

abstraction as itself a reality.[6]

One example of the Fallacy of Misplaced Concreteness is the emphasis in modern philosophy and science on what Whitehead calls "simple location." He holds that spacetime should not be understood in terms of simple location. Instead, in a reference to Bishop Berkeley, Whitehead developed a view of reality as a "complex of prehensive unifications."[7] Berkeley held that what really exists is the perception "within the unity of the mind."[8] Whitehead modified this view and declared that:

> realisation is a gathering of things into the unity of a prehension; and that what is thereby realised is the prehension, and not the things. . . . The things which are grasped into a realised unity, here and now, are not the castle, the cloud, and the planet [all in Berkeley's illustration] simply in themselves; but they are the castle, the cloud, and the planet from the standpoint, in space and time, of the prehensive unification.[9]

He further states:

> We can be content with a provisional realism in which nature is conceived as a complex of prehensive unifications. Space and time exhibit the general scheme of

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[6]Though I have not read more than a few pages of secondary source material, it seems that the Indian philosopher Nagarjuna may have had a similar view. He criticized those that held that *dharmas* can have an independent existence. And he said that words do not identify a definite substratum. It seems that he thinks that all language is an abstraction from reality.

[7]Whitehead, Science and the Modern World (New York: The Macmillan Company, 1925), 73.

[8]Ibid., 71.

[9]Ibid. He uses *prehension* because the meanings of *perception* and *apprehension* were polluted. Prehension means "*uncognitive apprehension*: by this I mean *apprehension* which may or may not be cognitive." Ibid., 70. I will discuss prehensions in greater detail later in the chapter.

> interlocked relations of these prehensions. You cannot tear any one of them out of its context. Yet each one of them within its context has all the reality that attaches to the whole complex. . . . Thus nature is a structure of evolving processes. The reality is the process.

On this view of the nature of reality, every event is now seen as a mirror of every other event.[11] In this view, Whitehead is clearly showing the influence of Leibniz, who viewed the world as a plentitude of monads that reflected each other. Unlike Leibniz, Whitehead conceives of his "monads" as having "windows."

He writes that it is "disclosed in the fundamental essence of our experience" that "each happening is a factor in the nature of every other happening."[12] For the philosopher weaned on Humean views of causation, these statements seem almost ignorant; as if one was unaware of the arguments of Hume. But it is immediately upon uttering these words that Whitehead proceeds to consider causation. He asks how one event can be the cause of another event. His initial answer is that even the question is mistaken--"The whole antecedent world conspires to produce a new occasion."[13] An effect is not brought about merely by a single cause but by an interconnected world that functions as a set of causes, even if one element in that set has primary importance. For example, though Cleopatra may have held the asp to her own breast, the set of antecedent causes that brought her to

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[10]Ibid., 73-4.

[11]Ibid., 66, 71, 72-3, 74.

[12]Whitehead, MT, 164.

[13]Ibid.

that point surely includes the actions of Octavian and, further back, those of Cassius and Brutus.

Whitehead admits that if we view events as disconnected then we cannot explain the causal relationship. Hume was correct on that point, but Whitehead seems to view it as almost a trivial truth. Whitehead says that if one holds Hume's view then, if one is going to be consistent, she cannot have any regrets for the past or hopes for the future. More importantly, these implications of Hume's doctrine make even science unimportant.[14] What would be the reason for experimenting if there is no hope of confirming or disconfirming an hypothesis? In fact, all effort becomes meaningless. Why would I be wasting my time writing these lines if I didn't view them as part of a larger, connected goal of finishing this project and eventually my degree? What role do they play except as part of a larger life that does include hopes for the future?

From considerations like these, Whitehead concludes that "The only intelligible doctrine of causation is founded on the doctrine of immanence."[15] To what experiential evidence can we turn? Once again, it is the experience of our bodies. He writes, "The body is ours, and we are an activity within our body. This fact of observation, vague but imperative, is the foundation of the connexity of the world, and the transmission of its types of order."[16] As was shown in the previous chapter, that we experience our bodies and

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[14]Ibid., 165.

[15]Ibid.

[16]Ibid.

experience with our bodies, presents the evidence that the world is connected. It is our source of perception in the mode of causal efficacy.

I have raised the point that the world is interconnected. However, I have yet to explain how that interconnection works, particularly how causation works. Ivor LeClerc writes that "A coherent philosophical explanation of the interconnectedness of things is possible only in terms of a doctrine of internal relations."[17] The rest of this chapter will explore how internal relations are possible and what they are like. I will begin by discussing the concept of *time*, for Whitehead writes that the Humean views of experience and causation rest upon a mistaken view of time, that of pure succession.[18] In order to get a clearer notion of causation, we *must* have a clearer notion of time.

## Time

In 1710 Bishop Berkeley wrote:

> Time, place, and motion, taken in particular or concrete, are what everybody knows, but having passed through the hands of a metaphysician, they become too abstract and fine to be apprehended by men of ordinary sense. . . . For my own part, whenever I attempt to frame a simple idea of *time*, abstracted from the succession of ideas in my mind, which flows uniformly and is participated by all beings, I am lost and embrangled in inextricable difficulties. I have no notion of it at all, only I hear others say it is infinitely divisible, and speak of it in such a

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[17]Ivor LeClerc, Whitehead's Metaphysics: An Introductory Exposition (London: George Allen and Unwin Ltd., 1958), 118-19.

[18]Whitehead, Symbolism: Its Meaning and Effect (New York: Fordham University Press, 1985, 1st edition 1927), 16.

> manner as leads me to entertain odd thoughts of my existence . . . .[19] [italics in original]

Berkeley's difficulty with the concept of time suggests Whitehead's criticism. The good bishop says that time is confusing when abstracted from the succession of ideas in his mind. Whitehead does not agree that time is built up out of our ideas, but he does share with Berkeley the belief that time is not *pure* succession--it is the succession of some entities. In fact, both agree that it is built up out of the succession of ontologically fundamental units; Whitehead just does not share Berkeley's idealism.

In the twentieth century, the scientific concept of time was dramatically altered. As Whitehead rightly concludes, "In the modern theory there is no . . . unique present instant."[20] This drastic alteration of the fundamental concept of time has revolutionized the entire picture of reality.[21]

As an outcome of Albert Einstein's theories of relativity,[22] space and time have been viewed as intimate parts of reality and not simply as the background upon which the events of the world occur. Stephen Hawking wrote:

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[19]George Berkeley, "A Treatise Concerning the Principles of Human Knowledge," in Principles, Dialogues, and Correspondence, ed. by Colin Murray Turbayne (Indianapolis: The Library of Liberal Arts, The Bobs-Merrill Company, Inc., 1965), 69.

[20]Whitehead, SMW, 120.

[21]"the chief casualty is common sense." Paul Davies and John Gribbin, The Matter Myth (New York: Simon and Schuster, 1992), 17.

[22]Special Relativity (1905) dealt with high-speed motion and General Relativity (1916) dealt with gravity.

> Space and time are now dynamic quantities: when a body moves, or a force acts, it affects the curvature of space and time -- and in turn the structure of space-time affects the way in which bodies move and forces act. Space and time not only affect but also are affected by everything that happens in the universe.[23]

This dramatic change occurred as a result of the loss of absolute time and absolute space; both losses are outcomes of the special theory of relativity. Einstein's revolution refuted the old understanding of a fixed time that flowed as pure succession. His theory, while elevating time as a fourth dimension and making it an important part of the picture of reality, actually dismissed the physical reality of time. He wrote, "It is neither the point in space, nor the instant in time, at which something happens that has physical reality, but only the event itself."[24]

Time is relative to the individual or object and its point of reference. The most famous and popular illustration is that of the twins. If one twin leaves the other and travels close to the speed of light, and then returns, the travelling twin will find the stay-at-home sibling to be much older. The effect is not an illusion. The stay-at-home twin has actually experienced more time than the travelling twin.

The theory has been supported by various experiments. One example is a set of

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[23]Stephen Hawking, A Brief History of Time: From the Big Bang to Black Holes (New York: Bantam Books, 1988; paperback edition, 1990), 33. See also Hawking's "Einstein's Dream" in Black Holes and Baby Universes and Other Essays (New York: Bantam Books, 1993; paperback edition, 1994), 73-74.

For a very personal discussion of Einstein's revolution and the difficulty of conceiving his ideas, see Davies' essay "Confessions of a Relativist," in Davies and Gribbin, Matter, 99-111.

[24]Albert Einstein, The Meaning of Relativity (Princeton, Princeton University Press, 1955), 30.

tests run on muons at the CERN particle-accelerator near Geneva. A muon is a sub-atomic particle that is a relative of the electron which has a lifespan of two millionths of a second. In the experiment, the muons were accelerated in the Muon Storage Ring at a speed of 99.94 percent of the speed of light. A normal lifespan of the muon would last fourteen to fifteen trips around the accelerator. However, the accelerated particles lasted for four hundred trips. Their lifespans were increased by almost thirty times their normal duration.[25]

Further revisions occurred in the concept of time with the introduction of the general theory of relativity by declaring that time slows with an increase of gravity, the reverse also being true. Time, like space, is actually warped by gravity. The implication is that at a singularity, such as a black hole, where the gravitational force reaches practically infinite proportions, time actually ends.[26]

These revolutions in the concept of time removed the idea of the constant "now" and eliminated "a distinct past, present and future,"[27] removing the idea of time as a pure succession. Because of this lack of absolute time, "physical processes cannot ever depend

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[25]The experiment in described in Nigel Calder, Einstein's Universe, 2nd ed. (New York: Wings Books, 1982), 90-91.

[26]Paul Davies, God and the New Physics (New York: Simon and Schuster, 1983), 122-23.

[27]Ibid., 123-24.

explicitly on time as such -- for whose time will they choose?"[28]

Evander McGilvary claims that Whitehead was the first philosopher to begin publicizing the philosophical ramifications of relativity theory.[29] It is to Whitehead's credit that he early recognized the re-thinking necessary for basic metaphysics that the new science compelled. In fact, he became a metaphysician largely because of these scientific developments. As a mathematician and philosopher of science he was interested in exploring the ramifications of relativity, and in his exploration soon realized that fundamental metaphysics needed revisions. It is to that task that he devoted his senior years.

Whitehead writes, "Time is known to us as the succession of our acts of experience, and thence derivatively as the succession of events objectively perceived in those acts."[30] We do not have access to knowledge of an absolute time that flows in pure succession (because no such thing exists). No, time is the relationship between events in our experience. Whereas Berkeley said that time could not be abstracted from the succession of ideas in the mind, Whitehead holds that time cannot be abstracted from the succession of events in our experience. Twentieth-century physics claims that space-time

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[28]Davies, About Time: Einstein's Unfinished Revolution (New York: Simon and Schuster, 1995), 179.

[29]Evander Bradley McGilvary, "Space-Time, Simple Location, and Prehension," in The Philosophy of Alfred North Whitehead, ed. by Paul Arthur Schilpp for the Library of Living Philosophers Series (New York: Tudor Publishing Company, 1941, 1951), 211-12.

[30]Whitehead, S, 35.

points cannot be pulled out of the spacetime manifold--they are not separably distinct.

Rasvihary Das writes that philosophers have ignored perception in the mode of causal efficacy because they have had a wrong conception of time. As he writes, "There is no lapse of empty time, but only succession of events, which again means that every event is derived from its predecessor to which it conforms. The flow of time is really this causal flow of events, in which the later events have to conform to the earlier ones."[31] I am reminded of Einstein's light cones. A particle's past is made up of those events that fall within its light-cone, which means those that may have had a causal influence on the particle. The light-cone is the in-principle limit of the causal relation. The intersections of the "world-lines", which fall within the light-cone are the regions of causation. The flow of time is the causal relation. Event x "causes" event y. There is, then, a temporal succession between x and y. If we observed no changes in nature or ourselves, then we would not develop a concept of the flow of time.

Whitehead's view is that time is built up out the relationships among the fundamental units of reality. He terms these fundamental units "actual entities" or "actual occasions." When discussing time, the latter name is more fitting for fundamental actuality. Whitehead's terminology is often a barrier. He made a practice of using terms in new ways because he felt that many of the traditional terms carried such baggage that using them would have been more of a confusion. Unfortunately, not all of his choices

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[31]Rasvihary Das, The Philosophy of Whitehead (New York: Russell and Russell, 1964), 134.

were themselves very helpful in avoiding confusion. Fortunately, that is not the case with these two terms.

Whitehead considers actual entities to be the fundamental metaphysical units. Ivor LeClerc's wonderful book *Whitehead's Metaphysics* discusses Whitehead's relations with the metaphysical tradition. It is LeClerc's position, and one with which I agree, that Whitehead is concerned with the same metaphysical questions that concerned Aristotle; Whitehead is merely re-thinking them in the context of late modern philosophy and the new science. LeClerc quotes from Aristotle's *Metaphysics*:

> And indeed the question which was raised of old and is raised now and always, and is always the subject of doubt, namely, what being is [*τι το ον*], is just the question: what is substance [*ουσια*]? For it is this that some assert to be one, others more than one, and that some assert to be limited, others unlimited. And so we also must consider chiefly and primarily and almost exclusively what that is which *is* in this sense.[32] [brackets in LeClerc]

Whitehead is also concerned with this question of what *is*, even if his answer is not that it is *ουσια*. LeClerc claims that for Aristotle the fundamental unit of reality is vaguely termed the *οντως ον*. For Whitehead, the *οντως ον* are named actual entities or actual occasions--the fundamental units of reality.

Whitehead is also committed to what he calls the "ontological principle." Aristotle was committed to this as well. He insisted, against Platonic Forms, that only what is *actual* exists; forms have reality only as they are components of the fundamental units of

[32]Aristotle, W. D. Ross translation, quoted in Ivor LeClerc, Whitehead's Metaphysics: An Introductory Exposition (London: George Allen and Unwin Ltd., 1958), 17.

reality. Whitehead writes that "the general Aristotelian principle is maintained that, apart from things that are actual, there is nothing--nothing either in fact or in efficacy."[33] Whitehead is in agreement with Aristotle that nothing is to be added to our metaphysics that is not a component of the fundamental units of reality, the actual entities.

The implication is that absolute space and time, as conceived by Newton, do not exist. Einstein develops the scientific refutation, and Whitehead the metaphysical implications, though these are anticipated by Berkeley and Leibniz (the latter most clearly in the correspondence with Clarke). Time does not exist except as a component of actual entities; time is built up out of the relationships among the fundamental units of reality.

In accordance with the ontological principle, Whitehead writes "One actual occasion is a limiting type of event."[34] I believe that this statement contains his doctrine of time, quite succinctly. He calls it the "epochal theory of time." He wants us to conceive time, not as pure succession, but as a relationship between actual occasions. Thus, time moves in epochs. Whitehead turns to a discussion of Zeno's paradoxes to illustrate his views:

> Zeno in his 'Arrow in Its Flight" seems to have had an obscure grasp of this argument [the difficulty with explaining how something becomes through time]. But the introduction of motion brings in irrelevant details. The true difficulty is to understand how the arrow survives the lapse of time. . . .
>
> In his 'Achilles and the Tortoise' Zeno produces an invalid argument depending on ignorance of the theory of infinite convergent numerical series.

[33]Whitehead, Process and Reality, corrected edition, ed. by David Ray Griffin and Donald W. Sherburne, original edition 1929 (New York: The Free Press, 1978), 40.

[34]Ibid., 80.

> Eliminating the irrelevant details of the race and of motion--details which have endeared the paradox to the literature of all ages--consider the first half-second as one act of becoming, the next quarter-second as another such act, the next eighth-second as yet another, and so on indefinitely. Zeno then illegitimately assumes this infinite series of acts of becoming can never be exhausted. But there is no need to assume that an infinite series of acts of becoming, with a first act, and each act with an immediate successor, is inexhaustible in the process of becoming. Simple arithmetic assures us that the series just indicated will be exhausted in the period of one second. The way is then open for the intervention of a new act of becoming which lies beyond the whole series. Thus this paradox of Zeno is based upon a mathematical fallacy.
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> The modification of the 'Arrow' paradox, stated above, brings out the principle that every act of becoming must have an immediate successor, if we admit that something becomes. For otherwise we cannot point out what creature becomes as we enter upon the second in question. But we cannot, in the absence of some additional premise, infer that every act of becoming must have had an immediate predecessor.
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> The conclusion is that in every act of becoming there is the becoming of something with temporal extension; but that the act itself is not extensive, in the sense that it is divisible into earlier and later acts of becoming which correspond to the extensive divisibility of what has become.[35]

That long selection illustrates Whitehead's doctrine of time. Part of the problem with Zeno's paradoxes is that they conceive time to flow as a pure succession, an absolute time. Whitehead rejects the assumption that every act of becoming can be infinitely divisible into shorter acts of becoming. Because of his commitment to the ontological principle, there is some act of becoming that is fundamental and cannot be divided into "earlier" and "later." These basic acts of becoming are his actual occasions, which, as stated, are limits. The actual occasion is fundamental and cannot be broken into an earlier and later; thus they are a limiting type of event. The actual occasion is fundamental and cannot be

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[35]Ibid., 68-9.

composed of more fundamental entities, including temporal durations. Actual occasions are the basic temporal units. They exist as a temporal duration; thus the *flow* of time is built up out of their relations.

Hume was influenced by Newton's theory of absolute time. Hume did not realize that our experience of the flow of time is itself part of our perception of causal efficacy. It is in this context that Whitehead can write that Hume's views of causation rest "upon an extraordinary naive assumption of time as pure succession."[36] Causation and time are both relations among the fundamental units of reality. In the final section of this chapter, I will explore those relations as I proceed with developing the Whiteheadian reconception of causation.

## Prehensions

Salman Rushdie's masterpiece, *Midnight's Children*, spends 125 pages leading up to the birth of the main character, Saleem Sinai. As Saleem is narrating the moments leading up to his birth, he recounts all the events that have led to that moment:

> How many things people notions we bring with us into the world, how many possibilities and also restrictions of possibility!--Because all of these were parents of the child born that midnight [the midnight of the creation of the Indian state], and for every one of the midnight children there were as many more. Among the parents of midnight: the failure of the Cabinet Mission scheme; the determination of M. A. Jinnah, who was dying and wanted to see Pakistan formed in his lifetime, and would have done anything to ensure it--that same Jinnah whom my father, missing a turn as usual, refused to meet; and Mountbatten with his extraordinary haste and his chicken-breast-eater of a wife; and more and more--Red Fort and Old Fort, monkeys and vultures dropping hands, and

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[36]Whitehead, S, 34.

> white transvestites, and bone setters and mongoose-trainers and Shri Ramram Seth who made too much prophecy. And my father's dream of rearranging the Quran has its place; and the burning of a godown which turned him into a man of [illegible] which Amina could not love. To understand just one life, you have to swallow the world. I told you that.[37]

In wonderful literary style, Rushdie expresses the philosophical truths developed by Whitehead. Both see the deep interconnections in the world and the intimate causal relationships between entities. Rushdie contends that the causal past of the newborn Saleem Sinai enters into who Saleem Sinai is. Whitehead makes that claim about all actual entities. How is that internal relationship to be explained? At this point we must discuss Whitehead's doctrine of prehensions.

The concept of a *prehension* was introduced earlier in this chapter. Again, it is one of those terms that can be a stumbling-block for someone trying to understand Whitehead. He writes in *Science and the Modern World*, "I will use the word *prehension* for *uncognitive apprehension*: by this I mean *apprehension* which may or may not be cognitive" [italics in original].[38] He does not want to use either *perception* or *apprehension* because they have such baggage and are usually taken as cognitive processes. A prehension is the basic causal relation between entities. Ivor LeClerc says that it has the literal meaning of "grasping" or "seizing."[39] As Dr. Merrill reminds me, "prehensile" is the most common

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[37]Salman Rushdie, Midnight's Children (New York: Penguin Books, 1980), 125-6.

[38]Whitehead, SMW, 70.

[39]LeClerc, 145.

form of the word in contemporary usage.

An actual occasion is a process of becoming. The process of becoming involves prehensions of past occasions/entities. Let me use the Rushdie quote above as an analogy for what I'm discussing. Let Saleem Sinai represent an actual occasion in the process of coming to be. Saleem Sinai is the subject. Saleem takes as objects of his prehensions, the past data of his world, which include the various actions of his parents, Indian politicians, and others that are listed. Each of these past events is integrated into Saleem's process of coming-to-be; they define the possibilities that limit his coming-to-be, as well. For example, he does not have the freedom to be born in Naples, because his parents live in Bombay. His causal past determines the range of possibilities involved in his own coming-to-be. Whitehead writes that each actual entity "is exhibited as appropriating for the foundation of its own existence, the various elements of the universe out of which it arises. Each process of appropriation of a particular element is termed a prehension."[40]

An actual entity is a *concrescence* of prehensions. A concrescence is merely a coming-to-be, a joining together. Thus, actual entities are composed of prehensions, such that when one analyzes an actual entity, one analyzes it into prehensions. Each prehension, itself, consists of three factors: 1) the entity that is doing the prehending (called the subject); 2) the entity being prehended (called the object); and 3) the manner

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[40]Whitehead, PR, 219.

in which the subject prehends the object (named "subjective form" by Whitehead). As an actual entity is in its process of coming-to-be, it functions as a subject. Once it has reached satisfaction, it becomes a datum for future actual entities to prehend. Thus, it also functions as an object when it has "perished." Subject and object, then, are relative terms. Also, prehensions are internal relations for the subject: the subject grasps the object and the grasping of the object itself becomes a constituent of the subject.

Whitehead interprets causation through his doctrine of prehensions. The rudimentary type of prehension is called a "simple physical feeling." As with perception in the mode of causal efficacy (which is perception as simple physical feeling), it is hard to isolate a human experience because our experience is so encrusted with higher grades of perception and cognition. Whitehead's theory of prehensions is to function as an explanation for the causal efficacy perceived within the world.

The subject prehending is the effect of the cause, which is the object being prehended. The prehending subject grasps the character or property of the prehended object and continues that character on into the next moment. Though the character is repeated, it does undergo transformation as a result of interaction with other prehensions, especially conceptual prehensions in their highest form in conscious beings. For example, the various events and persons in Saleem's past, pass their characters on into the future; they condition all that comes after. So, any future event must come to be with the actual world created by these past events. Let us view it on the cellular level. Suppose that one neuron is in a state of "pain." That becomes part of the settled world in which future

neurons must come-to-be. Thus, the pain is passed on to each new moment, in the sense that each neuron must become in a world conditioned by that pain.

One note of warning. The prehension does not start with the subject. It is aimed toward the subject and is integrated in that subject's coming-to-be. As Rasvihary Das nicely states, "the subject is, as it were, thrown up by the process."[41] The world moves on with each occasion largely conforming to the immediate past occasion. Change does occur as each occasion must integrate new data from the overall environment, but for most occasions, the present almost repeats the past. For example, actual occasions which compose certain layers of my oak tree may largely resemble their antecedents of a century ago. The actual occasions in that chunk of petrified wood that lies on the ground at the base of the oak, that my grandmother picked up in an Arizona desert almost fifty years ago, probably largely resemble their antecedents of many centuries. Das writes, "We can thus see how the cause passes into the effect. When the feeling of the initial datum or the cause is reproduced in the effect, the cause, too, comes to be present in the effect, because the reproduced feeling cannot be separated from its subject, the cause. It is in this way that the past is being gathered up into the present."[42] The past becomes internally related to the becoming subject.

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[41]Das, 101.

[42]Ibid., 105.

Based upon a revised notion of experience and in conjunction with contemporary science, Whiteheadians see the world as interconnected and not as a series of atomic units. The classical empiricist view, and its heirs, arose from a limited notion of experience that failed to observe the causal flow of the cosmos. The notion of absolute time played a role in these misconceptions. Now to a discussion of physicality within the Whiteheadian framework.

# CHAPTER EIGHT

## BODIES

A. H. Johnson writes of Whitehead, "It seems to him that the venerable body-mind problem is a tremendous fraud."[1] Whitehead echoes the Lockean feeling that the mind and body are clearly unified in our experience. The notion of separate mind and body is an abstraction that commits the fallacy of misplaced concreteness. He takes as a major goal of his metaphysics the task of formulating an ontology that supports this fundamental experience, given that the ontologies of Descartes, Newton, Kant, and others have proven unsatisfactory. To that end, physical nature must be reconsidered. In Chapter Three, I criticized Jaegwon Kim for not answering the basic question "What is the physical?" I echoed Noam Chomsky's complaint that you can't have a physicalism without a clear sense of what physicality is. I also entertained the notion that a reconception of the nature of physical reality, illustrated by the work of David Chalmers, could avoid the mind-body problem as it results in Kim's *Supervenience and Mind*. In this chapter I too want to contend that the physical and the mental cannot be separated, except as abstractions. Second, Physical reality ought to be reconceived as including ubiquitous proto-phenomenal and phenomenal qualities. Also, bodies should be seen as intrinsically related to their environment. This chapter will focus on bodies, while the next explores the nature of the mental. I will be dealing in abstractions, but admittedly

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[1]A. H. Johnson, Whitehead's Theory of Reality (New York: Dover Publications, Inc., 1962), 76.

so. In the following chapter, I will bring the two abstractions together to illustrate more explicitly the unity of the body and mind in Whiteheadian metaphysics.

## Questioning the Cartesian Picture of Body

When Princess Elisabeth questioned Descartes about his view of minds and bodies, she appealed to the traditional puzzles about the Cartesian ontology, such as--"How do immaterial minds affect material bodies?," "How do you explain the feeling of unity between mind and body?," and "How do I conceive of immaterial substances without extension?" Among Descartes' responses is an intriguing doctrine, that of *primitive notions*. He maintains that humans have "certain primitive notions that are like originals on whose model we form all our other knowledge."[2] These primitive notions seem to be intuitions or something like Aristotle's first principles or Reid's common sense. They are a few notions which are held to be certain. Among these he lists being, number, and duration. In reference to the body, he writes that humans have a primitive notion of body as extension. In reference to souls, we have a primitive notion of thought. He adds to these the notion of union--"finally, for the soul and the body together, we have only that of their union, on which depends that of the force of the soul for the moving the body, and of the body for acting upon the soul by causing its feelings and passions."[3]

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[2]Rene Descartes, "Descartes to Elisabeth, 21 May 1643," translated by John J. Bloom, in Women Philosophers of the Early Modern Period, ed. by Margaret Atherton (Indianapolis: Hackett Publishing Company, 1994), 13.

[3]Ibid.

When Elisabeth asks how this view fits within what he wrote in the *Meditations*, he responds that he does not explain himself very well.[4] He writes that there are important differences among the three notions. We arrive at the notion of the soul as thought by the "pure understanding"; whereas the notion of body as extension results from "understanding alone, but very much better by the understanding aided by the imagination." However, the notion of the union is "recognized only obscurely by the understanding alone or even by the understanding as aided by the imagination; yet they are known very clearly by the senses."[5] Return for a moment to our discussion of Kim's reliance upon Kant's notion of practical reason as the source of our commitment to the mind. My criticism was then that Kim does not rely upon sensory experience of the mind when he constructs his theory. It is interesting to note that even Descartes admits that sensory knowledge clearly gives us an impression of unity between mind and body. The primitive notions that distinguish mind and body are results of the understanding and/or the imagination. Descartes goes on to answer the Princess by saying that he had previously written only of the differences between mind and body because he did not think that people could conceive of both the union and the differences at the same time.[6] Descartes seems to be admitting to the abstraction of which many, including Whitehead, have accused him. Also, his primitive notion of the union of mind and body agrees with

[4]Descartes, "Descartes to Elisabeth, 28 June 1643," in Women Philosophers, 17.

[5]Ibid., 18.

[6]Ibid., 19.

the basic Lockean claim that we do have clear experiences of mind and body in causal efficacy.

Elisabeth is never fully satisfied with Descartes' responses. She agrees that the senses give clear indication that the soul moves the body. She writes to Descartes that she will have to reconceive his basic ontology in order to explain this sensory knowledge: "And I admit it would be easier for me to concede matter and extension to the soul, than the capacity of moving a body and of being moved, to an immaterial being."[7] Elisabeth wants to conceive the soul as possessing extension and writes that she is going to confuse the soul and body.[8]

Margaret Cavendish, the Duchess of Newcastle, developed an interesting response to the Cartesian ontology. Cavendish was a contemporary of Descartes' and, due to the connections of her royal husband, met Descartes while she was exiled in France. She was also acquainted with Thomas Hobbes and other leading intellectuals of the seventeeth century. Cavendish was a critic of both Descartes and Hobbes because she felt that their views of material bodies were inadequate. Though she was a materialist like Hobbes, she felt that Hobbes accepted the basic Cartesian view of material bodies. Cavendish's work,

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[7]Elisabeth of Bohemia, "Elisabeth to Descartes, 1 July 1643," in Women Philosophers, 16.

[8]Ibid., 21. Damaris Cudworth, Lady Masham, the daughter of Cambridge Platonist Ralph Cudworth, wrote to Leibniz along the same lines. She says, "I cannot yet conceive two very different substances to be in the universe, though extension alike agrees to them both. For clearly I conceive an extension without solidity, and a solid extension . . ." See "Lady Masham to Leibniz, 8 August 1704," in Women Philosophers, 87.

though lacking the sophistication, anticipates Whitehead's work, in some aspects. I think it is important to see the questions raised by this contemporary of Descartes that will be more fully developed by Whitehead almost three centuries later, even though he presumably never read her works.

Cavendish, a rationalist, writes that she cannot conceive of power and body as distinct. She writes that she cannot conceive of motion as separate from body; therefore, she takes motion itself to be a property of bodies. She writes that "all matter is partly animate, and partly inanimate, and all matter is moving and moved, and that there is no part of nature that hath not life and knowledge, for there is no part that has not a commixture of animate and inanimate matter."[9] Cavendish's initial claim is that the Cartesian picture of matter as extension does not explain motion. She takes motion to be evidence of self-motion on the part of material bodies. Self-motion, then, gives evidence that matter is active and not inert. She holds perception to be essential to an active body. She writes that the cause of perception is self-motion[10] and that "All the Self-moving Parts are perceptive."[11] Even all the parts of a human body are perceptive.[12]

Another reason she gives for holding that matter is active and includes properties such as living, knowing, and perceiving is that an inert matter does not explain the order

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[9]Margaret Cavendish, "Philosophical Letters," in Women Philosophers, 25.

[10]Cavendish, Grounds of Natural Philosophy (West Cornwall, CT: Locust Hill Press, 1996), 8.

[11]Ibid., 19.

[12]Ibid., 51.

that is apparent in the world. She writes, "Nature, being so exact (as she is) must needs be Self-knowing and Perceptive."[13] Chalmers writes that all physical objects possess proto-phenomenal properties and that these rely on ubiquitous information. Cavendish also claims that information pervades relations between objects. This information seems to account for the order of the world.[14] A clear case is the human body, where the various elements are able to function harmoniously because they pass information among themselves.[15] She merely discusses information, but never gives a very clear indication of what she takes the concept to mean.

Cavendish is a critic of Descartes's views of physical bodies because she holds that matter is active. She observes this activity in the motion of matter. Also, the activity accounts for the order that she observes. To be active is to be self-moving, which also implies perception in her view. I take her to mean that perception is itself a form of self-movement and a form of self-movement of which we are directly aware. Also, material bodies are able to order themselves if they can pass information among themselves. They pass this information via perception. Though not as sophisticated, I believe that her perceptions function much like Whitehead's prehensions. They are the relations between entities that pass information from one to the other and give rise to the order of the cosmos. Cavendish herself contends that mental properties can then be explained as part

[13]Ibid., 7.

[14]Ibid., 24-5.

[15]Ibid., 59.

of physical reality, but a physical reality not limited by the Cartesian notions. Whitehead makes the same claims for his view, to which I now turn.

## Whitehead's View of Body

Whitehead was a powerful critic of the Cartesian ontology and the materialism that he saw as descended from it. To begin this discussion, let me quote an extended section of *Process and Reality*:

> But the interpretation of the stone, on which the whole concept [of enduring substances] is based, has proved to be entirely mistaken. In the first place, from the seventeenth century onwards the notion of the simple inherence of the colour in the stone has had to be given up. This introduces the further difficulty that it is the colour which is extended and only inferentially the stone, since now we have had to separate the colour from the stone. Secondly, the molecular theory has robbed the stone of its continuity, of its unity, and of its passiveness. The stone is now conceived as a society of separate molecules in violent agitation. But the metaphysical concepts, which had their origin in a mistake about the stone, were now applied to the individual molecules. Each atom was still a stuff which retained its self-identity and its essential attributes in any portion of time--however short, and however long--provided that it did not perish. The notion of the undifferentiated endurance of substances with essential attributes and with accidental adventures still applied. This is the root doctrine of materialism; the substance, thus conceived, is the ultimate actual entity.[16]

He illustrates that the theory of material substance has retrenched over time and has also engendered difficulties due to the primary and secondary qualities distinction. It is quite an interesting statement to assert that on the theory in question it is the colour itself

[16]Alfred North Whitehead, Process and Reality, corrected Edition, ed. by David Ray Griffin and Donald W. Sherburne, original edition 1929 (New York: The Free Press, 1978), 78.

which is extended, and deftly raises the question as to how one is to conceive of the colour and the extension as essentially separate.[17] He continues,

> But this materialistic concept has proved to be as mistaken for the atom as it was for the stone. The atom is only explicable as a society with activities involving rhythms with their definite periods. Again the concept shifted its application: protons and electrons were conceived as materialistic electric charges whose activities could be construed as locomotive adventures. We are now approaching the limits of any reasonable certainty in our scientific knowledge; but again there is evidence that the concept may be mistaken. The mysterious quanta of energy have made their appearance, derived, as it would seem, from the recesses of protons, or of electrons. Still worse for the concept, these quanta seem to dissolve into the vibrations of light. Also the material of the stars seems to be wasting itself in the production of vibrations.[18]

Again Whitehead points out the serious retrenchments and the growing difficulties for substance materialism as a result of the exploration of sub-atomic particles and the new quantum theories. He raises the serious critique that matter cannot be viewed as enduring substance, but, instead, is understood as occasions of energy in flux. Thus, Whitehead views contemporary physics as confirmation of his doctrine that nature is fundamentally process.

Again, he continues:

> Further the quanta of energy are associated by a simple law with the periodic rhythms which we detect in the molecules. Thus the quanta are, themselves, in their own nature, somehow vibratory; but they emanate from the protons and electrons. Thus there is every reason to believe that rhythmic periods

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[17]F. H. Bradley makes the same points in his magnum opus: Appearance and Reality: A Metphysical Essay (London: George Allen and Unwin LTD, 1893, 1920), 16-17. Whitehead knew Bradley's argument's on these points and was, presumably, influenced by them or had his own beliefs encouraged.

[18]Whitehead, PR, 78-9.

cannot be dissociated from the protonic and electronic entities.[19]

And, he concludes from these scientific observations:

> The simple notion of an enduring substance sustaining persistent qualities, either essentially or accidentally, expresses a useful abstract for many purposes of life. But whenever we try to use it as a fundamental statement of the nature of things, it proves itself mistaken.[20]

Whitehead points out that materialism had problems from its inception; first with the primary-secondary quality distinction, and later with the successive retrenchments. As scientific knowledge of physical reality progressed, materialism became more difficult to support. Of particular difficulty were the developments within atomic theory, especially quantum mechanics, in Whitehead's lifetime. Physicists demonstrated that the fundamental units of reality could not be understood as enduring substances. Instead, they are active entities. For Whitehead, what was left was to develop the ontology that made sense of these scientific discoveries. Physical reality, therefore, must be reconceived, not as enduring substance, but as active entities within an interconnected cosmos.

Descartes posited three kinds of substances--mind, body, and God. Whitehead writes that most subsequent modern philosophies were an attempt to simplify this ontology by claiming that one of the three was basic.[21] Thus there were materialists such as Hobbes or Laplace, idealists such as Berkeley or Schopenauer, and theistic monists

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[19]Ibid., 79.

[20]Ibid.

[21]Whitehead, Religion in the Making, first Fordham edition 1946 (New York: Fordham University Press, 1996), 107.

such as Spinoza or Hegel. Whitehead writes that the problem underlying the modern tradition is the concept of substance; he writes, "There is no entity, not even God, 'which requires nothing but itself in order to exist.'"[22] No entity can exist by itself because the cosmos is interconnected--that is the fundamental tenet of the organic philosophy.

As we saw in the previous chapter, causation is a matter of internal relations between actual entities. These internal relations were described in their most basic form as pure physical prehensions. The notion of internal relations is also inherently a part of any adequate concept of physical reality. Edward Pols defines physicality for Whitehead as follows, "The physical pole of an actual entity can be thought of as the sum of the internal relations that entity has to other actual entities."[23] An actual entity is largely the concrescence or coming-to-be of its prehensions of past entities. As we will see in the next chapter, the mental pole of actual entities encompasses novelty. The physical pole, therefore, is merely the influence of the past upon an actual entity. However, the *merely* can be deceptive, since this influence by the past is *internal* and constitutes much of the being of any actual entity.

For Whitehead, the very notion of physicality involves internal relations and an interconnected cosmos. His is clearly not the contact mechanics of Descartes. As we've

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[22]Ibid., 108.

[23]Edward Pols, Whitehead's Metaphysics: A Critical Examination of *Process and Reality* (Carbondale, IL: Southern Illinois University Press, 1967), 29. Pols has written the only fully developed critique of Whitehead's metaphysics. Pols focuses on the doctrines of universals, God, and freedom; these doctrines are not addressed in this paper.

seen, Whitehead's views arise out of his doctrines of experience and causation and are rooted within his understanding of the concepts of contemporary physics. Contemporary physics does not and cannot support the notion of matter as enduring substance; instead, it presents matter as active and in process. There is still another source of Whitehead's notion of physicality--cellular biology.

Charles Hartshorne, who served as Whitehead's grader while a graduate student at Harvard and who is often seen as Whitehead's most important interpreter, claims that Whitehead seems to be among the first philosophers to take serious note of cellular biology and the revision of the physical that it compels. Hartshorne writes:

> Most philosophers seem to regard the discovery of cells in biology as merely a tale told to them when they were young. For they speak of the body as though it were essentially one entity, one mass of stuff, or machine, or 'material' aspect of one human individual. In fact, the body is a vast 'society of cells,' none of which is a human being, and any of which could (with minor modifications) conceivably exist and live in a suitable medium outside of any human organism.[24]

Cell theory, then, also calls into question the Cartesian notion of physicality. Now, I do not think that Kim can be accused of failing to note that the body is a society of cells. However, Kim does not see physicality as constituted of internal relations. Hartshorne, however, holds that this interconnectedness follows from cell theory:

> . . . all this renders imperative a generalization of the idea of 'environment,' if that means, 'the set of individuals with which a given individual interacts.' The body is nothing but the most necessary, inseparable, intimate portion of our social environment, or field-of-relationships with other living beings, each living its own

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[24]Charles Hartshorne, Whitehead's Philosophy: Selected Essays, 1935-1970 (Lincoln: University of Nebraska Press, 1972), 16.

life.[25]

Hartshorne's claim is that the body itself cannot be separated easily and distinctly from its environment. The body itself is a society among societies and, as such, is interconnected with the environment that surrounds (and permeates) it.

Joseph Needham, a Cambridge biologist, writes that Whitehead's metaphysics was "extremely welcome" to biology.[26] Biology had had to contend with the mechanics of the Cartesian picture of physicality and had consistently and continuously had great difficulty in explaining biological phenomena according to the concepts of modern physics. Whitehead had denied that actuality is an enduring substance at a definite location within an absolute space and time. Needham writes that this denial was welcome to biology, as was Whitehead's replacement, that an entity ought to be viewed from its own point of view, or, for biology as "a function of its position in the whole."[27]

For Whitehead, our experience of the world, including our biological and physical sciences, leads us to an understanding of physicality as internally related. Bodies are societies not absolutely distinguished from their environs. In one of my favourite passages in his entire corpus, he asks the reader to consider "one definite molecule" which has been travelling about the universe for millions of years. It enters the body through ingestion of

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[25]Ibid.

[26]Joseph Needham, "A Biologist's View of Whitehead's Philosophy," in The Philosophy of Alfred North Whitehead, ed. by Paul Arthur Schilpp, 2nd edition (New York: Tudor Publishing Company, 1941, 1951), 259.

[27]Ibid., 261.

air or food. He asks, "At what exact point as it enters the mouth, or as it is absorbed through the skin, is it part of the body? At what exact moment, later on, does it cease to be part of the body? Exactness is out of the question. It can only be obtained by some trivial convention."[28] Whitehead's point is that the human body is itself not some fixed and rigid substance, but is a dynamic thing that bears all sorts of relations to the rest of the world and is in continual flux with it. Ultimately, we cannot precisely define a body's exterior limits. As he says, "the body is part of the external world, continuous with it."[29] Von Hans F. Geyer coins interesting terms, calling the body thus conceived a "geophilosophical location" and a "world body," to illustrate this understanding of interconnection.[30]

A reader might respond that the body is something definite, that she can tell where her hand ends and where the space surrounding begins. Notice that I had said "ultimately." Whitehead's point is that on the microscopic level, there is a great deal of interaction and fuzziness. As I type, skins cells flake off onto the keys. When we consider the molecular, atomic, and sub-atomic levels, surely the interaction is even more constant and fuzzier. The line is vague. Nonetheless, there is a sense in which our body

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[28]Whitehead, Modes of Thought (New York: The Macmillan Publishing Company, Inc., 1938), 21.

[29]Ibid.

[30]Quoted in "Summary of '*Genetische Philosophie am Beispiel eines Philosophen*: Alfred North Whitehead,'" summary by Ernst Wolf-Gazo, in Whitehead *und der Prozessbegriff* (Munchen: Verlag Karl Alber Freiburg, 1984), 246.

is something reasonably definite. Whitehead himself acknowledges this observational claim--"Bodily experience . . . . is the sheer enjoyment of being definitely something."[31] How to explain this apparent paradox between our common-sense experience and our scientific understanding? Let me take a diversion into Whitehead's theory of *society*.

## Societies

We are confronted by observation of objects that we consider to be enduring, such as chairs, tables, and rocks. "Our lives are dominated by enduring things, each experienced as a unity of many occasions bound together by the force of inheritance."[32] Enduring objects are often taken to be enduring substances; yet, they are a unity of occasions. Though the fundamental units of reality are actual entities or occasions, they do come together in societies. Any grouping of actual entities is called a *nexus*. Any nexus that is dominated by a particular character is called a society.[33] Thus the actual entities that compose a pebble are a nexus that is organized according to the character of a pebble. Or, in other words, this particular nexus instantiates the universal "pebble" or, at least, the set of universals that constitute "pebblehood."

A. H. Johnson writes that "Societies arise because of the fundamental characteristic of all actual entities: the immanence of one in others by means of a process

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[31]Whitehead, The Function of Reason (Boston: Beacon Press, 1929, 1958), 31.

[32]Whitehead, Adventures of Ideas (New York: The Free Press of The Macmillan Company, 1933, 1967), 280.

[33]See Ivor LeClerc, Whitehead's Metaphysics: An Introductory Exposition (London: George Allen and Unwin Ltd., 1958), 214-15.

of prehension."[34] Thus, the very interconnectedness of actual entities, that they relate to one another internally, contributes to the rise of societies, groupings determined by a particular character. As such, a society is understood to have a duration through time. Because entities from the causal past help to determine the coming-to-be of entities, in the present, they pass their order along to the becoming entity. Change occurs as a result of novel reactions by present entities to their pasts. Endurance results from a basic repetition of the past character in current entities. The actual entities of the petrified rock persist with the same basic character for aeons, while those of the tulip exhibit change at a greater frequency. Physical bodies, then, are societies, though highly complex. Johnson continues:

> A complex society analyzable into various series or strands of personal societies is called a *corpuscular society*. For example, an animal body is not a society of the simple personal sort--one linear sequence of entities. It is composed of many entities, co-ordinated in a very complex fashion. At any moment an animal body is composed of a vast group of contemporary actual entities, each a member of a different personal society, corpuscular society, or general nexus.[35]

The Whiteheadian point is that bodies are highly complex manifestations of social order. They can be perceived as enduring objects, because there is a region that is definable by the persistence of a common character. However, that region is not isolated from its environment. It is itself composed of intricate relations among the subordinate societies, which themselves interact with the environment in different ways. Whitehead's doctrine

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[34]Johnson, 51.

[35]Ibid., 52.

of societies is especially developed to account for the appearance of both change and endurance in our experience. Whitehead writes that "the interweaving of change and permanence is each required by the other."[36]

## Types of Bodies

In nature, societies fall into four different levels of aggregation, or, as Whitehead writes, "four types of aggregations of actualities." These four are inorganic, vegetable, animal, and human.[37] Whitehead does warn that there are not clear and sharp distinctions between these levels. Also, as we shall see momentarily, it would have been best to call the final level consciousness, given that "human" begs certain questions against the mental powers of higher animals and the possibility of conscious alien life. In fact, all of the labels could be unclear. Whitehead considers the inorganic, or non-living, societies to be governed by mostly formal relationships. There is very little novelty or change in these societies; they do not possess individual expression; and at each moment they largely conform to their pasts. Again, the chunk of petrified wood serves as a good example.

"Vegetables" do exhibit change and novelty and possess some individual expression. The class intended here would likely include protozoa and other lower life forms that are not strictly considered members of the vegetable *kingdom*. These societies aim at their own survival, and clearly exhibit growth and development. They respond to their environment, as when a daisy traces the path of the sun in the sky or when the roots of a

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[36]Whitehead, MT, 53.

[37]Ibid., 27-8.

creekside tree grow towards the water. Whitehead says that vegetable bodies are democracies--there is no central organizing constituent. If you mow your lawn, it continues to grow. If you remove the head from the body of a French nobleman, the body ceases to function as a living human body. However, if you remove a head of cabbage, the cabbage plant pushes on.

Animal bodies, then, do have a central organizing component. Whitehead writes that they include "at least one central actuality, supported by the intricacy of bodily functioning."[38] Human bodies have such an elevated central organization, that Whitehead considers them to illustrate a new type of body. His analysis fits our common understanding that we are both like and distinct from animals. As I wrote before, however, these lines are not clearly distinguished. Clear borderline cases include simple animals like the hydra or complex plants like the venus fly trap or animals with higher mental capacities such as dolphins or chimpanzees. I think that Whitehead wants us to see bodies as a continuum beginning with the simplest sub-atomic physical particles and culminating in the conscious bodies of human beings. Along this continuum there are four obvious regions, despite the fact that their borders may not be easily distinguishable.

"But we have to admit that the body is the organism whose states regulate our cognisance of the world."[39] The body is the locus of our experience of the world. Or, viewed the other way, it is the avenue by which the world affects us. The Lockean

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[38]Ibid., 28.

[39]Whitehead, SMW, 93.

experience, to which I continue to appeal, is of the fundamental union between our bodies and minds. The role that body plays in our life is of central importance. We do consider our bodies to be constituent parts of who we are. As Whitehead writes, "Our bodily experience is the basis of existence."[40]

Our experience of our bodies is primarily a matter of perception in the mode of causal efficacy:

> The internal functioning of a healthy body provides singularly few sense data, primarily associated with itself. When such sense data appear, we send for a doctor. They are mostly aches and pains. And yet our feeling of bodily unity is a primary experience. It is an experience so habitual and so completely a matter of course that we rarely mention it. No one ever says, Here am I, and I have brought my body with me.[41]

The human body functions, then, as the primary and central element in our experience. Whitehead defines the human body as follows:

> The body is that portion of nature with which each moment of human experience intimately cooperates.[42]

This definition repeats the earlier claim about bodies in general that they cannot be clearly and distinctly separated from their surrounding environment, but, rather, are closely interrelated with it. Yet, they also indicate some region. In the case of human bodies, the body is that region of physical reality at any moment that is cooperating with the central

[40]Whitehead, MT, 114.

[41]Ibid.

[42]Ibid., 115.

organizing element of human experience.[43]

## Life

A good question is what differentiates the organic from the inorganic societies? Whitehead gives a sharp descriptive difference between the two. He writes: "The characteristic of life is reaction adapted to the capture of intensity, under a large variety of circumstances. But the reaction is dictated by the present and not by the past. It is the clutch at vivid immediacy."[44] Simply put, life is the capacity for greater novelty. Living organisms are most clearly those that do not simply repeat the past. Whitehead does not have a simple answer for how life arises out of inorganic matter, nor does he consider the distinction to be absolute. For one thing that is a quite complicated scientific question. Also, for many people, not just the creation scientists, it is also a question of important religious significance. What Whitehead does do is formulate an ontology which provides a more coherent background from which to discuss the issue. It is still problematic to explain how life arises out of lifeless matter. Yes, that matter becomes organized according to certain structures, such as DNA, that themselves are the building-blocks for organisms. The Whiteheadian ontology anticipates these considerations by pointing out

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[43]Many interesting issues arise from an Organic conception of the human body. The abstract for Von Hans F. Geyer's paper "*Genetische Philosophie am Biespiel eines Philosophen:* Alfred North Whitehead" asserts that the epistemological relevance of *skin* has not been sufficiently explored. Also, Whitehead's view of bodies was highly influential on Maurice Merleau-Ponty, particularly in his later work. For an interesting discussion see William S. Hamrick's "A Process View of the Flesh: Whitehead and Merleau-Ponty," Process Studies 28/1-2 (1999): 98-116.

[44]Whitehead, PR, 105. See Rasvihary Das' discussion of these points, 68-9.

that actual entities in certain structural patterns give rise to life, while other structural patterns do not. Why do they give rise to life? They have *greater* novelty. Why do these specific societies have greater novelty? Well, that is still the mystery.

Whitehead lists three characteristics of life--absolute self-enjoyment, creative activity, and aim.[45] These three seem to be interconnected as an organism takes its data from the environment and responds to them with a goal to survival and adaptation in the course of change. In this process life is not merely creative, but is also destructive. A clear example is the need for nourishment. Non-living societies do not need to destroy other societies in order to maintain their survival. In an interesting passage, Whitehead writes:

> Thus, all societies require interplay with their environment; and in the case of living societies this interplay takes the form of robbery. The living society may, or may not, be a higher type of organism than the food which it disintegrates. But whether or no it be for the general good, life is robbery. It is at this point that with life morals become acute. The robber requires justification.[46]

Though Whitehead never wrote a text that was explicitly an ethics, moral philosophy still permeates his writing. And *Adventures of Ideas* is about as close as you can get.[47] Life introduces novelty and struggles against the simple repetition of inorganic matter. In this quote we see that ethics itself is one area of novelty introduced by life.

It would be wrong, however, to think that novelty is exclusively reserved for organic

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[45]Whitehead, MT, 152.

[46]Whitehead, PR, 105.

[47]In that text he says, "Unfortunately life is an offensive, directed against the repetitious mechanism of the Universe," 80.

societies. As Das writes, "We know what we call a stone is really a succession of stony occasions, and in this succession we get mere repetitions without any appreciable novel addition," while still admitting that even in the stone "there is no actual occasion which entirely fails to make this novel contribution."[48] Life is the capacity for great novelty, great adaptability to the environment. Though the stone does undergo changes over time, it does not, for instance, struggle to maintain its own survival. The boundary, then, between living and non-living may not be easily differentiated, which does seem to be the case. Thus Whitehead's doctrines claim that there are societies that are mere aggregates that *as that society* are inert and largely endure over time. There are also those societies that operate as their own organized entity, and these give rise to life. At root, however, all the fundamental units, all actual entities, possess some degree of novelty, though that is not properly or ordinarily called "life." Whitehead's strong criticism of materialism is that it could not, under its own principles, answer questions about life, minds, and ethics. However, an ontology, which realizes, along with contemporary physics, that the fundamental units are themselves not inert substances, does provide the basis with which to address these ultimate concerns.

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[48]Das, 68.

## Actuality as Active

Charles Hartshorne writes:

> A stone is better interpreted as a colony of swirls of atoms (crystals) than are its atoms interpretable as servants or organs of the stone. The atoms and crystals are substances; the stone-properties, the accidents. But in the animal body, there is truth almost equally in the view of cells as the substantial realities with the whole body as their appearance or functioning as in the converse view. The animal body and its cells are alive, the stone and its molecules are presumed to be absolutely dead. But this notion of deadness obviously originates from an illegitimate inference from stone-properties to molecule- and atom-properties, whereas the latter are the fundamental ones, by no means directly revealed to the senses which perceive stones. The organism of highly and rhythmically active particles which is an atom [or molecule] is different from the stone in ways which point in the opposite direction from materialism.[49]

Hartshorne's criticism of modern materialism is that it took stones and like bodies as its standard and interpolated those properties onto the fundamental particles. But stones are not fundamental. Twentieth-century physics has clearly demonstrated that electrons and quarks do *not* behave like stones, or even the oft-used billiard balls. In fact, these fundamental units share similarities with living bodies in that they are active and in constant states of flux. Fundamental reality, then, is viewed as active, upholding the long tradition of metaphysics that arises out of the ancient Greeks.

For Whitehead, this assertion takes the form of his polemic against ontologies that tolerate what he terms "vacuous actuality," actualities that have no power. He considered materialism to be an abstraction[50] that commits his fallacy of misplaced

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[49]Hartshorne, 58.

[50]Whitehead, SMW, 80.

concreteness--taking an abstraction and assuming it to be an actuality. Matter was "anything which has this property of *simple location*" (emphasis in original).[51] As was discussed in the previous chapter and this one as well, the cosmos must be viewed as interconnected, with no entity being ultimately separable from its world. Also, space and time are not absolute, but are constructed out of the internal relations of actual entities. Therefore, the notion of objects with a simple location in spacetime is not acceptable. Yet, on the other hand, Whitehead insists that all actuality is physical (though not in the sense of traditional materialisms).[52] Whitehead insists that we examine what we mean by the physical, and we soon discover that experience does not present us with knowledge of vacuous actualities. Vacuous actualities would be unable to change, grow, adapt, or even have internal relations. Actuality must live up to its name and be *active*. The fundamental physical units such as electrons and quarks are active. And, through societal cooperation, this activity blossoms into the activity present in the higher-ordered bodies of living organisms and ultimately in humans.

Actuality is reconceived as possessing power in itself, and this power is in the form of *feeling*:

> We shall never elaborate an explanatory metaphysics unless we abolish this notion of valueless, vacuous existence. Vacuity is the character of an abstraction, and is wrongly introduced into the notion of a finally real thing, an actuality. Universals and propositions are vacuous, but are not actualities. But if we discard the notion of vacuous existence, we must conceive each actuality as attaining an end for itself.

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[51]Ibid., 50.

[52]Das, 78.

> Its very existence is the presentation of its many components to itself, for the sake of its own ends. In other words, an actuality is a complex unity, which can be analysed as a process of feeling its own components. This is the doctrine that each actuality is an occasion of experience, the outcome of its own purposes.[53]

The analysis of that doctrine remains for us in the final chapter.

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[53]Whitehead, The Function of Reason (Boston: Beacon Press, 1929, 1958), 30-31.

# CHAPTER NINE

## PANEXPERIENTIALIST PHYSICALISM

> It belongs also to this part of our subject to inquire whether there is anything in the known world that is not part of this metaphysically primitive material of physics. Here we derive great assistance from our earlier epistemological inquiries, since these enable us to see how physics and psychology can be included in one science, more concrete than the former and more comprehensive than the latter. Physics, in itself, is exceedingly abstract, and reveals only certain mathematical characteristics of the material with which it deals. It does not tell us anything as to the intrinsic character of this material. Psychology is preferable in this respect, but is not causally autonomous: if we assume that psychical events are subject, completely, to causal laws, we are compelled to postulate apparently extrapsychical causes for some of them. But by bringing physics and perception together, we are able to include psychical events in the material of physics, and to give to physics the greater concreteness which results from our more intimate acquaintance with the subject-matter of our own experience.[1]

The preceding quotation does not come from the writings of Alfred North Whitehead. No, it is straight out of Bertrand Russell's *Analysis of Matter*. This text implies that Russell believed that both fields--physics and psychology--have some legitimate claim to truth, but that the complete truth could only be discovered by synthesizing the two. When *Analysis of Matter* was published in 1927, Whitehead was just beginning to release his more systematic metaphysics. In *Analysis of Matter* Russell does rely heavily upon Whitehead's early work in the philosophy of science. What is interesting is how this quote so clearly expresses what Whitehead took to be his agenda. Though Russell and Whitehead differed in the approaches their careers took after the twenties, their aims are

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[1]Bertrand Russell, Analysis of Matter (NY: Dover Publications, Inc., 1927, 1954), 10.

so close to one another. Whitehead's metaphysics led him to defend a physicalism that makes room for the mental. Many contemporary Whiteheadians refer to this view as *panexperientialist physicalism*, a label that I shall adopt as well.

Panexperientialist physicalism claims that the discussion of bodies from Descartes through Kim has focused on an abstraction. Also, the discussion of minds has been about an abstraction. The two are abstracted from a more fundamental reality that espouses qualities that we label "mental" and "physical." Ernest Wolf-Gazo writes "A question such as, How is the mind related to the body presupposes unwarranted categoreal entities--mind *and* body. For this question asserts that there is, initially, two separate items which, somehow, communicate. Yet what are the criteria for stating that there are, in fact, two such separate items?"[2] Wolf-Gazo points to the very heart of Whitehead's concern with modern philosophy and science--Why assume these two categories in the first place? Whitehead's claim is that these are abstractions, that in our experience they are clearly experienced as a unity (the Lockean experience and Descartes's primary notion of union discussed in the last chapter) and that it is the goal of philosophy to develop a metaphysics that is adequate in interpreting these data and is consistent with them. To that end, he denies vacuous actuality and insists that the fundamental units of reality, which are physical, be viewed as active, *feeling* entities, with their own subjectivity. Thus, even

[2]Ernest Wolf-Gazo, "Toward a Process Theory of Mindness based on Lucretius, Spinoza, Alexander, and Whitehead," in *Whitehead und der Prozessbegriff* (Munchen: Verlag Karl Alber Freiburg, 1984), 346.

fundamental reality has what he calls a "mental pole" in conjunction with the "physical pole."

One quick note of warning. Whitehead is *not* a panpsychist. I take *panpsychism* to be the view that *minds* are ubiquitous. Thomas Nagel's essay on panpsychism discusses the view in these terms, as does David Chalmers' work. Chalmers claims that thermostats could have minds. Whitehead would deny this claim because thermostats are merely aggregates and are not societies with personal order. Many earlier Whiteheadians used the term panpsychism when discussing Whitehead or their own views, particularly Charles Hartshorne. I read most of these philosophers as not disagreeing with me in substance; they simply, and unfortunately, use a different terminology, which has quite a bit of philosophical baggage. The Whiteheadian view is that experience, in the form of subjective feeling, is ubiquitous. *Minds* are a higher-order property or product of this subjectivity.

## No Bifurcation of Nature

In his early work in philosophy of science, Whitehead became concerned with what he called the "bifurcation of nature," which was basically the split between physical objects and the mind of the human knower.[3] He saw this bifurcation as the source of difficulties with mind/body, knower/known, appearance/reality, etc. As we've seen, Descartes is the

[3]During the discussion period following a conference presentation of mine given since writing this section, Jorge Nobo characterized the bifurcation of nature as separating apparent reality from causal reality. The distinction is the same, though I really like his characterization. It demonstrates why Kim will have a dilemma because mind is already assumed to be outside the realm of causality.

most important source of these dualisms for modern philosophy. Whitehead perceived these dualisms as failures on the part of philosophy, not just because they couldn't answer the questions, but because they exhibited an incorrect philosophical methodology. He writes:

> Natural philosophy should never ask, what is in the mind and what is in nature. To do so is a confession that it has failed to express relations between things perceptively known, namely to express those natural relations whose expression is natural philosophy.[4]

The failure is methodological, because it assumes two realities instead of addressing what might be more fundamental. Though in 1920 he resisted metaphysical speculation into fundamental reality, Whitehead later came to realize that his concerns could only be addressed by rethinking basic ontology. However, even at this time, he saw his goal to be the unification of the data of experience:

> The primary task of a philosophy of natural science is to elucidate the concept of nature, considered as one complex fact for knowledge, to exhibit the fundamental entities and the fundamental relations between entities in terms of which all laws of nature have to be stated, and to secure that the entities and relations thus exhibited are adequate for the expression of all the relations between entities which occur in nature.[5]

Much of the rest of his work can be read as an attempt to elucidate the data of human experience with the goal of seeing that experience as a unity and not something to be broken into abstractions. Central to the data drawn from that methodology is the unity

[4]Alfred North Whitehead, The Concept of Nature (Cambridge: Cambridge University Press, 1920, 1986), 30.

[5]Ibid., 46.

of mind and body, which he called "the fundamental basic persuasion on which we found the whole practice of our existence."[6]

Charles Hartshorne, Whitehead's most famous interpreter, also asserted this unity of mind and matter as fundamental to his own, independent work. He writes,

> In actual experience, mind and matter are together, namely, in our experiences. If we know matter at all, we somehow perceive it. But we also perceive mind, for at each moment we are aware both of physical things *and* of our own experiences, feelings, thoughts, desires, and so on. Thus both minds (I use the word 'mind' to refer to the reality of experiences) and bodies are together as things given in human experiences. Every experience has an aspect of sense perception, and also an aspect of self-awareness, or awareness of experience itself.[7]

I find Hartshorne's statements on this point to be consistent with my own experience. Today is a beautiful May day with temperatures in the sixties and seventies. The sun is shining. Everything is green because of the wonderful amounts of rain we have received the last two months, bringing us out of two years of drought. The wind is mild. The birds are singing. It is an all-around beautiful day; one of those I describe as "perfect weather." As I just looked out my door and described these experiences, I was not only aware of the sunlight, wind, leaves, etc., but I was also aware that I was having these

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[6]Whitehead, Modes of Thought (New York: The Free Press, 1938, 1968), 161.

[7]Charles Hartshorne, Whitehead's Philosophy: Selected Essays, 1935-1970 (Lincoln: University of Nebraska Press, 1972), 114. Hartshorne is himself an idealist. He also interprets Whitehead as one. The type of idealism is one that takes experience as the fundamental unit of reality. I think Hartshorne himself commits an abstraction at this point. Whitehead's philosophy takes physical and mental to both be parts of basic reality; thus I am defending a panexperientialist *physicalism* instead of an idealism. Process philosophy has suffered, I believe, because of the the influence of certain Hartshornian interpretations such as this one.

experiences. I am aware of a purple flower on the deck. I am also aware of my purple feeling of the flower on the deck. To divide these elements in experience is to abstract from the particular experiences. Much as Nel Noddings reprimands Kantian ethics for creating universal rules as abstractions at the expense of particular situations and the very conditions, in her view, that make them moral dilemmas, the bifurcation of nature would violate a fundamental coherency in experience.

Whitehead claims that our experience affords us no knowledge of what he terms *vacuous actuality*--actuality void of activity or power. Given that the standard view of contemporary empiricism disagrees with Whitehead,[8] let me point to seven reasons for questioning the existence of vacuous actuality that are presented by David Ray Griffin, a leading contemporary Whiteheadian. Much as Daniel Dennett's *intuition pumps*, these points are to engage thought, but are not necessarily arguments.

No Vacuous Actuality

First, Griffin makes the following statement, "We know from our own experience that experiencing actualities can exist, but we have no experiential knowledge that a

[8]It is interesting to note that modern philosophy, by far, does not hold to a vacuous actuality. For Spinoza, fundamental reality is active, just as it is for Leibniz. Locke's doctrine of power and Berkeley's ideas deny vacuous actuality, as do elements of the philosophies of Schelling, Hegel, Schopenauer, Bradley, Cavendish, Conway, and numerous others. Contemporary philosophies of vacuous actuality seem to develop from Cartesian views of substance (excepting his doctrine of God) and Humean views of ideas as interpreted by Kant's critical philosophy.

vacuous actuality is even possible."[9] David Chalmers and Bertrand Russell each made very similar statements. Griffin's claim points to an oft-overlooked fact about mainstream physicalism, that a doctrine of physicality based solely upon extrinsic properties is a *theoretical* commitment. Of course, it will be argued that you cannot proceed from a claim about one entity to a claim about all entities. This objection, clearly, is true. Griffin does not present it as that type of argument. The mainstream physicalist will likely argue that we have knowledge of an indefinite number of objects and that our knowledge is limited only to external properties--that we have no knowledge of the internal relations of other objects (thus the problem of other minds, which, I must admit, I've never really felt the force of as a *problem*). Clearly the point must be granted that we do *not* have this intrinsic knowledge. However, no one is asserting that we can "get inside" other entities and experience their subjectivity. But, as Russell and Chalmers claimed, it does not violate common sense to assume that there are internal properties. Also, Nagel's "What is It Like to Be a Bat?" was an attempt to show that we do have intuitions about subjectivity in other entities. The only intrinsic properties that we do have knowledge of are our own. A coherent theory would be one that held that the intrinsic properties of other physical objects are of like nature with our own.

The second point Griffin makes is a development of Berkeley's *esse ist percipi*

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[9]David Ray Griffin, "Panexperientialist Physicalism and the Mind-Body Problem," at www.ozemail.com.au/~farleigh/DGpanexp.html, 4.

argument. [10] Griffin writes that Berkeley's question was "What does it *mean* to say that physical things exist?" Berkeley concludes that in our experience there are those things perceived and those things that perceive. The things perceived end up being ideas in the minds of perceivers; therefore, they are not fundamentally actual. Though Berkeley was an idealist, Griffin takes this argument's conclusion to be that all actualities are perceivers (which is more like Leibniz). I am not convinced that Berkeley's argument is conclusive that all actualities are perceivers, but given the importance and influence of the argument in modern philosophy, it at least increases the support for the intuition made in Griffin's first point. Berkeley is correct that our most intimate knowledge is of being-as-perceiver. Parsimony could lead us to an ontology that all actualities are perceivers instead of positing two fundamental substances (Whitehead's bifurcation of nature). The reductive physicalist would argue that she is not supporting a bifurcation, but a reduction of mind to matter or even a elimination of the category of mind all together. But, is Berkeley not right that our most intimate knowledge is of being-as-perceiver?

Griffin's third point raises a question about the context within which materialism developed in the early modern world. Though it is not an argument against mainstream physicalism or vacuous actualities, I think these types of historical/cultural analyses do shed light on the motives and concerns of original thinkers, and in doing so might point to the path that followed as being in error, much as evidence that results from an illegal

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[10]Ibid.

search is declared "poisoned fruit." Griffin writes that historians of science have emphasized that modern materialism, for many thinkers, was a result of religious convictions. It was

> adopted in the seventeenth century less for empirical than for theological-sociological reasons, such as defending the existence of a supernatural deity, the reality of supernatural miracles, and the immortality of the soul. . . . For example, this idea of nature's elementary units, according to which they were wholly inert and (in Newton's words) 'massy, hard, and impenetrable,' proved (to the satisfaction of Boyle, Newton, and their followers) that motion and the mathematical laws of motion had to have been impressed upon these particles at the beginning of the world by an external creator.[11]

Of course, this strategy backfired. Is this an argument against physicalism? No, except that it illustrates that these early thinkers realized that a matter that was vacuous needs an external, even supernatural, force to provide it with the activity observed in experience. They observed that vacuous matter could do nothing on its own.

The fourth point that Griffin makes comes from the nature of science itself. He says that science is limited to asking certain types of questions and seeking certain types of answers. The point made repeatedly that science looks only at external relations is an illustration of this fourth contention. I would submit that it is an assumption, albeit a good one, that science is the source of much of our best knowledge. However, it does seem hasty to rule out *a priori*, and as a part of theoretical commitments, aspects of individual experience and maybe even the data of poets, mystics, or painters.

The fifth contention of Griffin's seems redundant, and I have used it to explicate

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[11]Ibid., 5.

previous points. It is the claim that direct experience gives no evidence of vacuous actualities. This point alone is really worthless since a physicalist could say that experience gives no evidence of non-vacuous actualities outside ourselves (we might even grant the point if we are restricted to presentational immediacy, to which the contemporary physicalist is likely to be restricted herself as well). The physicalist would point to doors, tables, rocks, etc. for strong support.

This pointing, however, leads to Griffin's sixth contention--that the sciences have shown us that fundamental physical stuff does not behave like doors, tables, and rocks. I discussed these claims in Chapter Eight and will not revisit them here.

Griffin's seventh point is his most important. A worldview based on vacuous actualities has to lead to the mind-body problem. How are vacuous bits of matter supposed to explain minds, particularly the human intellect? He writes that you end up with some form of dualism, including epiphenomenalism in this category, or materialism. Though he doesn't specify what type of materialism, there really seem to be four options. The first two are eliminativism or reductive materialism, both of which would deny the obvious experience of minds. Thirdly, one could be an emergentist of some sort. As I will demonstrate shortly, emergentism commits a category-mistake by claiming that a set of entities or properties develops from a completely different set. Finally, there is nonreductive physicalism. The nonreductive physicalist's views are probably just veiled forms of property dualism. Or, they simply succumb to the arguments made against them by Jaegwon Kim and developed in the first section of this paper. In fact, Kim's

dilemma seems to be consistent with Griffin's statement here. For Kim, either we have to be an epiphenomenalist or a reductive physicalist. Griffin's emphasis is that the inability to explain the mind-body problem, the very fact that it is even a problem, stems from the view that matter is vacuous actuality. To that end, "The mind-body problem can reasonably be taken . . . as a *reductio ad absurdum* of the view that the ultimate units of nature are vacuous actualities."[12]

These "intuition-pumps" at least raise questions about vacuous actualities. If nothing else, we ought to be prepared to examine any viable option. Whitehead demands that we re-think many of our traditional philosophical and scientific conclusions because they have ignored much of the pertinent evidence. He writes:

> The conduct of human affairs is entirely dominated by our recognition of foresight determining purpose, and purpose issuing in conduct. . . . The motions of his body [President-elect Hoover as part of a story about intentions], those of the bodies of the sailors, like the motions of the shipbuilders, were purely governed by the physical laws which lead a stone to roll down a slope and water to boil. The very idea is ridiculous. . . . Again we are told that we should look at matter historically. Mankind has gradually developed from the lowliest forms of life, and must therefore be explained in terms applicable to such forms. But why construe the latter by analogy to the earlier forms. Why not reverse the process? It would seem to be more sensible, more truly empirical, to allow each living species to make its own contribution to the demonstration of factors inherent in living things. . . . We have here a colossal example of anti-empirical dogmatism arising from a successful methodology. Evidence which lies outside the method simply does not count.[13]

The only actuality of which we have intimate knowledge is ourself. Whitehead's

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[12]Ibid., 6.

[13]Whitehead, Function of Reason (Boston: Beacon Press, 1929, 1958), 12-15.

methodology would turn the traditional methodology on its head and take the experiencing human being as its starting-point. We must first examine and explore what we know about ourself. From there we extrapolate or interpolate how other actualities are similar and different. The usual reverse is to start with fundamental material building-blocks (themselves not always conceived according to the best contemporary physics) and try to explain every other actuality as arising out of those building-blocks. Yet, as Whitehead has asserted, this second method starts with an abstraction, a hopeless abstraction which will never serve as explanation for all of concrete reality. When one adopts the second method, one ends up ruling out much of human experience, particularly experience of mind-body interaction, because it cannot be reduced to these material building-blocks (witness the on-going debates about various qualia). Whitehead's question is simple--Why adopt this limited methodology instead of beginning with the actuality of which we have the most intimate knowledge? In this simple inversion, Whitehead's philosophy becomes more adequate in interpreting the data of our experience (because that is where it begins), and it is more applicable to our human experience (because it can speak to issues concerning minds, values, aesthetic qualities, and other factors in experience).

## Dipolarity

We know that the human being, as an experiencing subject, has aspects that we call "physical" and aspects that we call "mental." Using the Whiteheadian methodology, we should examine all actuality to see if all other beings also possess this dipolarity. One

of the most obvious features of our own physical bodies is that they largely endure from one moment to the next. It is quite clear that they undergo change, but from one moment to the next, there is relative conformity to the past. Mental aspects of the human being have a greater amount of novelty. Our perceptions can change quite radically from one moment to the next. Also, our ideas move very quickly from one mental picture to another or from one topic to another (thus the experience in a conversation of realizing that one has spent many minutes on a tangent and trying to work oneself back to the main topic). Our mental aspects abound with creativity and novelty. They are also subjective. My friends can observe the physical features of my hand as well as I can. However, I am the only one who can experience the pain if I were to cut my finger while preparing lunch. A neurosurgeon would become more familiar with my brain than I am; though he could not gain access to my thoughts. Finally, we also observe that the novelty introduced by mentality is aimed. As Brentano stated, mentality is largely about intentions, purposes. I identify three important characteristics of mentality--novelty, subjectivity, and aim.

As we have seen in the last two chapters, Whitehead claimed that the fundamental physical units of reality do possess these characteristics. First, there is an element of novelty in each new actual entity. Even the actual entity locked within the petrified wood, though almost completely a conformation to its past, does introduce some novelty. The novelty will be something negligible and largely uninteresting. Because each concrescence (coming-to-be of a new actual entity) prehends all of the previous actual entities that fall

within its causal history, each new actual entity will have a different past to prehend. The novelty can be as simple as that. Secondly, even these fundamental units have subjectivity. There is something that it is like to be a bat. There is also something that it is like to be an atom. A carbon atom that is in a diamond structure will have a different "point of view" than a carbon atom in a human toe. And, since each actual entity is the concrescence of the prehensions of its past, each entity has a different, subjective make-up.

Thirdly, all actual entities express aim. Whitehead's doctrine of causation is expressed in the form of prehensions. He also calls these prehensions *feelings*. Feelings are not to be mistaken for human-like emotions, though there is an element of valuation involved.[14] The usage is more similar to something like "These clothes are not dry; they still *feel* wet." The actual entity feels the past, meaning that it grasps the data of the antecedent world. In this way, actual entities not only are causally connected to their pasts, but they also experience their pasts. The experience is the causal connection. Human experience includes perception in the mode of causal efficacy. This mode is both causal and experiential. From that, we conclude that the causal relation must be similar in all actualities--that it be both causal and experiential. Therefore, all entities are taken to be experiential. All actual entities feel.

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[14]"Value is inherent in actuality itself. To be an actual entity is to have a self-interest. This self-interest is a feeling of self-valuation; it is an emotional tone. . . . It is the ultimate enjoyment of being actual," Religion in the Making, first edition 1927 (New York: Fordham University Press, 1996), 100.

Now, in this process of concrescence, there is an aim. Whitehead calls it "subjective aim." Simply put, the goal is the coming-to-be of the entity in question. Its subjective aim includes how it responds to its past world. But that *how* really is the entity in question. The response is embodied in the coming-to-be of the actual entity. So, even fundamental physical reality includes the aim of its own coming-to-be out of its prehensions of its causal past.

I identified three important characteristics of mentality--novelty, subjectivity, and aim. The Whiteheadian ontology claims that even fundamental physical reality includes novelty, subjectivity, and aim. Therefore, fundamental reality expresses aspects of what we consider to be "physical" and aspects of what we consider to be "mental" in ordinary human experience. Just as the human being is *dipolar*, so is fundamental actuality. Actual entities are a subjective, creative process of coming-to-be (mental) that prehend their causal past and become data in the causal past of future actual entities (physical).

An actual entity, therefore, has mentality. It does *not* have a "mind"; and it is clearly not "conscious." Whitehead rejected the emergentism of his day that got something out of nothing. He viewed this as a category-mistake; that at some moment in physical evolution a ghost would pop into the machine. William Ernest Hocking expresses this same concern. He writes, "Emergence is the name for a problem, not for a solution."[15] Emergentism violates simple coherence, in that one must postulate a

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[15]William Ernest Hocking, "Whitehead on Mind and Nature," in The Philosophy of Alfred North Whitehead, ed. by Paul Arthur Schilpp for the Library of Living

different class of entity or property than has been existing before. Whitehead presents the logical alternative. "Mental" aspects occur alongside "physical" aspects in even the most fundamental of entities. Hence, as evolution leads to more and more complex physical structures and organisms, it also leads to more and more complex mentality. Thus, at some vague point along the body-continuum of quarks to humans, we begin to get recognizable "minds." Also, at some point, the more complex state known as "consciousness" arises.

## Final Thoughts

There is no distinction between mentality and physicality to be explained. The mentality of entity X is simply X's subjective relation and reaction to its environment. Of course, when we come to minds, particularly conscious minds, there are a host of questions that remain. For example, how do the various neurons of the human brain get integrated to produce Beethoven's *Ninth*? These questions are a matter of cognitive science and the cooperation of psychologists, neurologists, and others. David Chalmers is attempting to establish a new science of consciousness based upon his own re-thinking of the ontological commitments. The Whiteheadian organic philosophy goes farther and provides wonderful vistas from which to approach cognitive science in a new way. The point of this paper has been to illustrate that a different ontology based upon a different

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Philosophers Series (New York: Tudor Publishing Company, 1941, 1951), 395.

methodology is possible and preferable. As Roy Wood Sellars wrote, "To me the high value of Whitehead's thought is ontological. It is a serious alternative to any form of materialism."[16]

Initially I introduced four criteria from which to judge the two theories developed in this paper--consistency, coherence, adequacy, and applicability. First, I will assume that both Kim's and Whitehead's philosophy are logically consistent--they contain no inherent logical contradictions. Secondly, I have concluded that Whitehead better meets the criterion of coherence. I initially defined coherence by borrowing a definition from Frederick Ferre--"the conceptual elements of our theory must positively hang together so that we can move smoothly without gaps from one element to another."[17] Whitehead does not commit the emergence category-mistake that Kim does. Kim assumes that minds are properties of high-order physical bodies whose separate status must be explained. The very fact that there is a mind-body problem for Kim is a result of his abstractions from direct experience.

The third principle is that of adequacy in explaining the data. First, Kim did not place his emphasis upon the data. Instead, he took mind as part of the *a priori* commitments of practical reason. This orientation of his resulted from an inadequate

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[16]Roy Wood Sellars, "Philosophy of Organism and Physical Realism," in The Philosophy of Alfred North Whitehead. Ed. by Paul Arthur Schilpp. 2nd Edition. New York: Tudor Publishing Company, 1941, 1951., 425.

[17]Frederick Ferre, Being and Value: Toward a Constructive Postmodern Metaphysics (Albany: State University of New York Press, 1996), 2.

doctrine of human experience. A more comprehensive and authentic philosophy of experience supports the Lockean claim that minds and bodies are unified and interact. Whitehead meets this criterion with his original philosophy of experience that refuted classical empiricism and its heirs. Whitehead's doctrine of experience does not reduce or eliminate important elements of experience but attempts to explain them as authentic and actual elements in the world.

Finally, we have to test the two theories for their applicability to human life. Let me turn to John Dewey to explain this feature. He writes:

> Thus there is here supplied, I think, a first-rate test of the value of any philosophy which is offered us: Does it end in conclusions which, when they are referred back to ordinary life-experiences and their predicaments, render them more significant, more luminous to us, and make our dealings with them more fruitful? Or does it terminate in rendering things of ordinary experience more opaque than they were before, and in depriving them of having in 'reality' even the significance they had previously seemed to have?[18]

Kim leaves us in a quandary--either accept that mentality is something distinct from identification or reduction to the physical or accept that mentality is something with causal efficacy, but you can't have both. Kim would have us to deny key elements in experience, in life. Whitehead would not. Though in Whitehead there is a form of identity between mental and physical, the physical has been so dramatically revised, that there is no serious damage to the mentality that we so treasure. Also, mentality plays an important causal role as the subjective experience of actual entities is the key element in

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[18]John Dewey, Experience and Nature (New York: Dover Publications Inc., 1958), 7.

their coming-to-be, which then affects all subsequent actuality. Kim's views would alienate philosophy from life, whereas Whitehead seeks to enlighten and enhance our lives.

In a straightforward methodological analysis, Whitehead's philosophy is superior in that it satisfies all four criteria. He satisfies the definition of philosophy that opened this paper --an attempt to construct a set of beliefs for the individual and the community based upon experience, which set of beliefs is consistent, coherent, applicable to its subject matter, and adequate in interpreting the data. And so I conclude with a grand statement of philosophy's purpose:

> There is one moral to be drawn. Apart from detail, and apart from system, a philosophic outlook is the very foundation of thought and of life. The sort of ideas we attend to, and the sort of ideas which we push into the negligible background, govern our hopes, our fears, our control of behaviour. As we think, we live. This is why the assemblage of philosophic ideas is more than a specialist study. It moulds our type of civilization.[19]

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[19]Whitehead, MT, 63.

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