THE CRITICAL PHILOSOPHY

and the

PHENOMENON OF MIND

It would have been foolish even to think

of the solution of such a problem

without having prepared myself by a

thorough study of the means and by

busying myself with less difficult problems

Weierstrass

THE CRITICAL PHILOSOPHY

and the

PHENOMENON OF MIND

Richard B. Wells

This book is dedicated to my loving sisters, Sherri and Melody,
who are the talented members of our family.

Contents

Preface

With this treatise I invite you to join me on a voyage of discovery into a question humankind has been asking for twenty-five centuries: *What is mind?* For me this voyage began over forty years ago when I was just a boy. It was for me at first a question prompted by that new marvel of the day, the digital computer, which was then popularly known as 'the electronic brain.' I can still remember how that phrase struck me to the core. "How could a *machine* think?" I asked myself. Of course, I later learned how to design and build them, and thereby learned that computers are not electronic brains and they do not think. Very few people today still call them 'electronic brains.' At that time, though, this nickname had all the force of the pronouncement of an Old Testament prophet: Chet Huntley, David Brinkley, and Walter Cronkite wouldn't have said it if it wasn't true. Computers were rare enough in those days to command a mystique, and their role in the then-early days of space exploration added weight and majesty to this mystique. So it was that this original question, which later broadened to the one with which this treatise is concerned, acted as a kind of compass that ended up providing the principal direction that my education and my professional career took. So it was that I came to study the still relatively new sciences of system theory and information theory, and later undertook the study of neuroscience.

For many years I worked entirely within the framework of scientific materialism, an attitude common among most physical scientists. In my younger days I had nothing worthy of being called a 'philosophy' and, rather, held to an attitude not uncommon among Americans that goes by the name of American Pragmatism. But as the years went by, and I felt myself no closer to achieving my goal, I gradually, and at first reluctantly, came to realize that those questions within the question that were proving to be the most intractable were questions of metaphysics. What does *thinking* mean? What does *intelligence* mean? What does it mean *to reason*? These were questions that I eventually had to admit my materialism could not answer. In the meantime, I was finding myself confronted by other questions, seemingly unrelated at the time but serving to jog my thinking out of relatively narrow channels and onto a broader plain. The study of physics was required in my choice of college major, and here I found myself having to work with other mysteries. What were these strange entities so common to our modern gadgetry called 'electromagnetic fields'? Even stranger still was that absurd-sounding yet experimentally undeniable assault on one's personal metaphysical prejudices known as quantum mechanics. I did not know at the time that these questions were in any way relevant to the questions that were proving so stubborn in the realm of the mental phenomenon. But, as it happens, the difficulties attending both types have a common source – ontological prejudice – and a common resolution in Kant's Critical Philosophy.

And so I eventually came to gingerly entertain the suspicion that an answer to the *What is mind?* question might have to be sought first from philosophy. That, of course, raised up another issue. There have been many great thinkers who have explored and written about philosophy, and their conclusions, guesses, and speculations are as different from one another as a bee is different from a fish. I read many of their scholarly works and most served only to deepen my already ingrained opinion that philosophers ask a lot of questions but provide very few answers. As a scientist I was trained to spot holes in theories, and in philosophy I found many. Then I read *Critique of Pure Reason* by Immanuel Kant for the first time.

Like everyone who reads what has been justly called "Kant's opaque masterpiece," I did not understand it at first. But, unlike the works of other philosophers, I sensed something in Kant that I did not get from others' works. It was a feeling that somehow this man was on the right track, that there were fundamental answers in what he had written, and that this philosophy was also a

science. Partly this was because the *Critique* helped me come to terms with many of the things I had found most troublesome in physics. But Kant also spoke of his theory as a *system*, and this was bound to appeal to me as a system theorist. Yet it was from the first clear to me that *Critique of Pure Reason* did not answer all the questions that must be addressed to understand the phenomenon of mind. My study expanded to include Kant's other works, eventually coming to take in them all. Even then much of Kant's work seemed to me like a magnificent catacomb *cum* maze. I read many scholarly opinions about what Kant seemed to be saying, and found these opinions to be as diverse and plentiful as the number of Kant scholars. Then one day I started reading an analysis by Professor Stephen Palmquist, and for me this was like someone had turned on the lights in a very dark mansion. Stephen wrote of "Kant's system of perspectives," and this was the key to Kant that I had been missing.

This treatise contains my interpretation of Kant's Critical Philosophy. I like to think that if Kant were alive today he would look at this work and say, "Yes, that's what I was saying." However, there will be no shortage of Kant scholars ready, able, and more than willing to disagree with this. Philosophers are, rightly so, a notoriously tough audience. Professor Palmquist tells me that what you will read here is a 'reconstruction' rather than an 'interpretation.' One of my colleagues in the Philosophy Department at our university tells me that I am a 'Neo-Kantian'; I'm not sure exactly what he means by this, but he seems to mean it as a friendly brand of name-calling. Like almost everyone who is drawn into Kant scholarship, I have a strong conviction that Kant's system is true and correct – an attitude that tends to cause other philosophers to laugh and make jokes, which is very understandable given the diversity of scholarly opinion over how Kant's philosophy is to be understood. Most of their jokes are quite good. To those esteemed scholars who undertake to critique this treatise I make one request: Record your questions and objections as they occur to you in whatever manner best suits you, but withhold judgment until you have seen whether or not the issue is adequately addressed later in the treatise. This will be hard to do, because the Critical theory tells us that human reason is characteristically dialectical and strives to attain to the most general conclusions by the quickest apparent route. Patience is more than a virtue when it comes to understanding Kant.

Above all else, you, the reader of this treatise, must always keep in mind that **epistemology** *always* takes precedence over *ontology* in the Critical Philosophy. Giving the priority to ontology in thinking is a hard habit to break. But this reversal of priority, making epistemology the foundation and making ontology conform to the human power *to know*, is the central tenet of Kant's theory. This is what makes Kant's theory unique in the history of philosophy. So far as we know from the historical record, there was nothing like it prior to Kant (although Protagoras seems to have been the first to espouse something of the same sort in the 5th century B.C.). There has been nothing quite like it since (although the influence of Kant's work was felt by all the later major figures in philosophy). The word 'epistemology' was not coined as a technical term in philosophy until 1854 – half a century after Kant's death. The word he uses in its place is **critique**. Giving priority to epistemology over ontology means we do not ask how we can have knowledge of things but, rather, we ask *what do we mean by 'thing' and what then can we know it as?* It is this radical change of perspective – Kant's "Copernican revolution" in philosophy – that opens the door to making metaphysics a true *science*. As you read on you will find the ideas of 'meaning' and 'context' to hold crucial central positions in the theory.

One impediment to understanding Kant's system is that it *is* a system, and the whole must be grasped before the parts can be properly understood. Naturally, this raises serious issues of how to best present the material. In this treatise I decided to take an approach based on the supposition that it is easier to learn a difficult topic by beginning with the more concrete and progressing by degree to the more abstract. I think people must learn by examples before they are ready to

comprehend the abstract general. My friends in engineering call this 'peeling the onion,' and that is the approach I have taken here. It adds length to the narrative, but depth to the understanding.

Another tactic I have employed in this work is based on my supposition that if someone is to be willing to invest the time and effort required to understand a difficult topic, there must be some evidence presented at regular intervals providing some basis of assurance that the time is not being wasted. In Kant's system epistemology takes *real* precedence over ontology. But an epistemology, if it is sound and scientific, has implications for the 'real world' of experience and these implications can be *tested*. Therefore I have not neglected in this work to tie Kant's theory in to scientific findings, most of which were obtained by some of the world's most distinguished scientists. These are people who for the most part do not subscribe to what they believe to be Kant's philosophy. This roster includes such giants in the field of psychology as Jean Piaget, William James, and Sigmund Freud. Among the other notables whose works come up in this treatise, many are Nobel laureates, many others are leading and highly-regarded scientists today, and still others were renowned scientists and thinkers from earlier times.

For the purpose of helping the reader to 'make sense' out of Kant's deeply technical theory, I have tried to weave a tapestry of *context* in this treatise, and this has had the effect that many key ideas must be introduced in the early-going in incomplete form, leaving important questions and issues unresolved at that point in the telling. These come to resolution only later in the treatise when more of the relevant material is available to assist comprehension. I have written this treatise in the form of a discovery process rather than in the much more abstract theorem-proof format common in today's technical literature. Some readers will be uncomfortable with this forward-referencing method of introducing and explaining important technical terms and ideas. For those who want to peek ahead to find out where we're going, a Glossary and appendices have been provided that summarize the full and mature technical explanations and definitions of these terms and ideas. There is also an extensive subject index to help link related parts of the narrative located in divers places throughout the treatise. However, in general you, the reader, should read this treatise front-to-back because the later material builds on the earlier. But if it is your preference to begin at the end, Chapter 24 contains an overview of the Critical doctrine of method for Critical science, and part of the exposition of this doctrine can be used as a backward-pointing direction sign for some of the large and central ideas developed in the body of this work.

In our journey we will find ourselves confronted with most of the age-old questions of philosophy, and we will find that we need answers to these before our journey of discovery can arrive at its goal. 'Existence' is one of these questions, and we will find that the 'question of existence' has two facets, the one called ***Dasein*** by Kant, the other called ***Existenz***. We will find the distinction to be of fundamental importance. There are many other 'bedrock' ideas like this to be encountered and dealt with as well. Chief among them is the idea of "reality" and what it means "to be real." Another is the distinction between 'thing', 'object' and 'Object.' There are many others as well, and the Glossary can be consulted to help keep track of Kant's legion of hair-splitting technical distinctions.

One of the most fundamental – and primitive – ideas of the Critical epistemology in regard to the human mind is that of **representation**. This term at root can have none but a *practical* definition. Kant explains it as "something in me that refers to something else." This is, at its foundation, an explanation in terms of "what a representation does" – and so is a 'practical' definition. But to put it to practical use we will have to learn much more about it, namely *how* it is put to use. Perhaps the most fundamental characteristic of the phenomenon of mind is that the human mind *makes* representations. You can therefore expect 'representation' to comprise a large part of the central core of Kant's theory.

Kant lived and worked in a time before the divorce between empirical science and philosophy took place. He viewed philosophy *as* science, and consequently his work is highly technical with many terms that take on very precise meanings. This has always presented problems for the study of Kant by means of English translations. I have slipped in one example of this already: *Dasein* and *Existenz* both translate into English as 'existence.' There are many other such instances as this. Going the other way, some distinct English words all translate to the same German word. All the Kant quotations in this treatise are my own translations of *Kant's gesammelte Schriften* (AK). I have provided English-language references for these quotes, from texts in print or available that I regard as those coming closest to delivering Kant's meaning. The citation is in the form [KANTx: pages in cited translation (AK volume: AK pages)]. However, I make an exception to this schema in the case of *Critique of Pure Reason*, where I use the standard form of citation for the A (first) and B (second) editions in place of the AK page numbers. I use a similar schema in citing Aristotle and Plato.

If you should look in these sources, you will find that my translations generally differ from theirs. Over many years and from the work of many renowned scholars there has been built up a 'tradition' for translating Kant. Many of these traditional interpretations I find to be *technically* faulty – that is, they involve words for which Kant intended a specific technical meaning that gets lost in the translation – although in most cases it is not difficult to understand how the translation comes about. Kant was never very consistent in warning us which of his terms were technical, and within his system of perspectives the perspective's *context* always determines the proper interpretation of the word. Only a relative few English translations of Kant's works – the best of the translations in print in my opinion – warn the reader when Kant used a different word (e.g. *Relation* vs. *Verhältnis*) from the word that was usually being translated to a particular English rendition. An example of one of these best-of-the-available translations is the Guyer and Wood translation of *Critique of Pure Reason*, which should in my opinion be used to replace the seriously flawed 'standard' translation by Kemp Smith.

In this treatise I have made every effort to keep Kant's distinct technical terms distinct in their English rendition. Sometimes the distinctions are subtle, and I employ such devices as distinguishing them by capitalizations, e.g. the distinction between 'object' and 'Object.' In other cases I distinguish them by spelling, e.g. 'reflexion' vs. 'reflection.' In some cases where no suitable English word exists, I leave the term in German, e.g. *Lust* and *Unlust*, and explain the context and meaning of the term. In a few cases, usually with reluctance, I have invented new words to maintain the distinction, such as 'desiration' for *Begehrung* vs. 'desire' for *Begehren*, or 'judgmentation' for *Beurtheilung* vs. 'judgment' for *Urtheil*. I have also avoided the ever-present temptation to try to paraphrase Kant. As unlovely as some of his sentences are in English, they contain numerous hair-splitting distinctions that are important in understanding what he is saying.

Another issue – and this is the one most likely to raise up criticisms from Kant scholars – is that Kant did not actually complete his system in all its details. He tells us this directly in the preface to the second edition of *Critique of Pure Reason*, and in some of his later correspondences to friends or colleagues. In this treatise I have strived to fill in those crucial details that Kant left out, particularly those that bear directly on the phenomenon of mind. Many of these are going to be controversial among philosophers. But controversy is nothing new to philosophy.

One thing about this treatise that is quite peculiar in comparison with most scientific or philosophical works is the space devoted within it to the history of particular ideas. Kant's system was and is revolutionary. There was nothing like it in philosophy before Kant; there has been nothing quite like it since. Kant provided us with a window from which to view Nature and

ourselves with fresh eyes. But before any person can be expected to embrace new and radical ideas of a very fundamental nature, I think we must attend to the popular ideas of our times, particularly those of long standing that have become deeply ingrained in our habits of thinking. Therefore, before erecting the new I survey the old to show us a bit of its history, a bit of its development, and to clear away certain idols and prejudices that have grown up around it. That, too, adds length to the narrative but helps to get us through the toughest spots.

In this review process, I have often critiqued some of the theories or hypotheses that hold sway in psychology or neuroscience today. At first encounter, some of these critiques will sound like criticisms. However, I admire and respect the works being critiqued and the first-rank thinkers whose works these are. It is their metaphysics I call into issue, not their science.

I also level criticisms at two classes of speculation. The first class consists of several lingering prejudices of the era of positivism and the so-called 'new age' reaction that has followed upon the death of positivism. These prejudices are antagonistic to critical thinking and, in the extreme cases, amount not merely to prejudicial presumptions but to arrogant dogmatism. One example in this class is provided by that distinctly American brand of ignorant poppycock called 'creation science'; another is provided by some of the more extremist positions found in the craft known as 'artificial intelligence.'

The examples in the second class have come from the physics community over the past few decades and are provided by the Big Bang theory of cosmology, the related Platonic theories of geometrodynamics, the so-called 'grand unified theory' of elementary interactions (GUT), and the newest Platonic adventures called 'string' or 'membrane' theories. I have chosen to use these theories as examples not because I have any physics to offer in their place but because they are examples of a rising attitude of new Platonism in science peculiar to the end of the twentieth and beginning of the twenty-first centuries. None of these theories have yet shown themselves capable of making unequivocally testable predictions, and all are in a constant state of patching and re-patching as new observations overturn the applecart. This does not render their claim to being called 'science' moot. Science must often grope in the dark toward solutions to scientific questions. It might be that future developments in experimental science could bring these theories to a better standing than is presently the case.[1] If these merely mathematical speculations find better footing in experimental or observational fact than they have at the time of this writing, no one would welcome this more than I. But at present the Big Bang and GUT are being sold to the lay public as *proven facts* and this they are not. They are scientific hypotheses originating from facts, but no open-minded person would claim that "the Big Bang really happened" is known *for a fact* to be true. Meanwhile, speculation is feeding speculation and, what is worse, the basic premises of these theories have already become dogma among many members of the physics establishment. There is some evidence that sound scientific research aimed at looking at possible alternative explanations is not being tolerated by publishing or funding decision-makers. *That* is a symptom of the closing of the scientific mind and the rising of authoritarianism; it would be an irony indeed if the heirs of Galileo were to transform themselves into the new inquisitors. In the meantime, some theorists working within the establishment framework are piling one *ad hoc* occult quantity upon another ("dark matter"; "dark energy"; etc.) with a disturbing lack of reservation or foundational reflection. Thus I think we are seeing the building of new modern-day versions of what Francis Bacon once famously called "idols of the theater." This is accompanied by publication in the popular press of a growing number of preposterous speculations – fantasies – in even such formerly reserved magazines as *Scientific American*. If so presented without

[1] There is a test of string theory presently in the planning stages at CERN, and I look forward to hearing about its outcome.

making it very, very clear that these speculations are not facts, this can only hurt, and is hurting, the reputation of science overall. Finally, Big Bang cosmology is now being presented *as fact* in high-school science textbooks. Kids of high school age are impressionable, and it is short-sighted and unethical to present hypothesis, however 'beautiful' the theory might be, to children in the guise of fact. As the Jesuits were once fond of saying, "Give us the boy and the man is ours for life." I use these theories to serve this treatise as present-day exemplars of why science needs metaphysics.

One purpose I have for writing this treatise is to prepare the foundations upon which a new unified science of mind can be erected. Psychology is a science in a crisis of disintegration. The field has become increasingly more fragmented into mini-theories and into specialties that often barely speak with one another. Science writer Morton Hunt has written, "though called a science, [psychology] is too heterogeneous to be defined or described in any but the most general terms . . . Can any discipline so untidy, multifarious, and disorganized be called a science?" But I can envision a day, whether in my own lifetime or not, when we will have a science of *mental physics* in which psychology, neuroscience, biochemistry, and the many other related disciplines can, in the company of philosophy, find a common ground and a firm foundation. Over the course of many years I have come to a deep conviction that philosophy, and especially metaphysics, can and must raise itself up and *re-earn* its place as the *first science*, dealing not only with questions but with answers as well. We will either have a scientific metaphysics or more pseudo-metaphysical science; there is no third alternative.

The outline of this treatise in brief is as follows. Chapter 1 briefly reviews some major philosophical themes that over the centuries have been applied to the problem of mind. It begins with a discussion of characteristics of the phenomenon of mind that are generally agreed to comprise the central features by which we distinguish the 'mind' phenomenon from other phenomena. Beyond these few common features there has been a wide diversity of opinion as to the details of what constitutes 'mind'. The different themes we review have produced various attitudes that have historically dominated the presuppositions applied to the problem by different groups of people. This review leads us to what are here called the unified themes of mind, from which we will weave the Critical synthesis that, following Kant, I have called the Organized Being model. This model, with its three logical divisions of *nous* ('mind'), *soma* ('body') and *psyche*, serves as the primary Object of investigation in this treatise.

Chapter 2 discusses the question of the proper relationship between science and philosophy. Since the 19th century, science has been viewed as an activity totally apart from philosophy. But what, exactly, is meant by the term 'science'? How does 'science' differ from 'natural philosophy'? Can there be any science without some philosophical foundation for what scientists do and how they do it? If not, how do we recognize what is scientific in philosophy and what is not? These are the questions discussed in Chapter 2. Kant's definition of science is set out in this chapter, and we use this definition throughout the rest of the treatise.

Chapter 3 discusses the core topic of representation. Representation is a central primitive in the Critical Philosophy and is the key attribute by which we distinguish mind from phenomena we call non-mental ("physical"). How representation is treated proves to be the central doctrine of theory running throughout the entire Critical Philosophy and throughout this treatise as well. In this chapter we get our first look at what constitutes representation in general and at some of the fundamental processes at work in the synthesis of mental representation. We introduce here an

important tool, the second-level analytic representation or 2LAR[2], that we will use throughout the rest of the treatise. We also here define four of Kant's basic analytical terms – Quantity, Quality, Relation, and Modality – around which are organized Kant's entire Critical exposition.

The theory of representation introduced in Chapter 3 raises at once particular questions and issues of a metaphysical nature. How these questions and issues are dealt with is crucial to the development of the theory of mind. Chapter 4 introduces the basic topics of Kant's Critical system of metaphysics proper. It is here where we first meet the transcendental Ideas, which are the first principles of Critical epistemology and from which will come the fundamental principles of Critical ontology and of transcendental Logic that complete the rest of Critical science.

Our study of the phenomenon of mind begins in earnest in Chapter 5 with the topic of consciousness. Consciousness admits of only a practical explanation, namely that it is the representation that a representation is presented. However, the elucidation of consciousness must draw a distinction between empirical consciousness (which is a phenomenon and can be studied by psychology) and pure consciousness, which can only be regarded as a transcendental capability expressed in terms of the unity of noetic ('mental') organization. It is the elaboration of the structural organization of this capability, expressed in terms of basic powers and processes and culminating in the 2LAR of the faculty of pure consciousness, that is the aim of Chapter 5.

Chapter 6 turns from the logical division of *nous* to that of *psyche* in the Organized Being model. *Psyche* represents the core reciprocity between *nous* and *soma* as expressed through a set of animating principles of mind-body community. Thus, we introduce *psyche* by means of the sensorimotor idea, an applied metaphysic that binds the observable phenomena of *soma* to the intelligible character of *nous*. It is here where we take our first step beyond what Kant called transcendental critique to the larger system of his transcendental philosophy, and here where we establish the Critical link between *a priori* first principles and concrete knowledge of experience. This chapter also introduces the metaphysic proper of Rational Physics and discusses some of its ramifications, not only for the phenomenon of mind but also for some popular Platonic enthusiasms that seem to be the order of the day in some branches of science. The principal topic of this chapter is the discussion of the Critical solution to the mind-body problem. As part of this solution, we also discuss the Critical analysis of the idea of emergent properties, which is one of the fundamental principles used in modern day biology and neuroscience. We show that 'emergent property' is an idea of reciprocity, and that it is erroneous to try to ground ideas of cause-and-effect or successive relationships through an appeal to emergent properties.

The discussion of the sensorimotor idea had to call upon elements of Kant's transcendental ontology in advance of the full discussion of this topic. The next three chapters turn to a full treatment of Kant's ontology and his theoretical Standpoint. Chapter 7 begins with a discussion of epistemology, ontology, and logic. Kant's definition of ontology leads us to the discussion of the Critical ontology in regard to the process of determining judgment. A proper understanding of Kant's theory requires that we also understand how Kant viewed Logic, and so we provide a brief review of the history of this topic. The central point made here is that there is not one meaning of the word "logic" but, rather, "logic" is a topic that has undergone many drastic mutations. From the proper understanding of Kantian Logic, we move to the exposition of the 2LAR of the process of determining judgment, which lays out the organization of objective principles of knowledge through thinking and judgment. Quite naturally, the topics of "truth" and "logical perfection" also come up in this discussion, and we give these their proper Critical examination.

[2] The 2LAR doctrine used in this treatise was inspired by the work of Professor Palmquist. Although my 2LAR differs in detail from his, I am happy to acknowledge the importance of his contributions here.

Chapter 8 begins our treatment of Kant's categories of understanding. It is the second longest Chapter in this treatise and one of the most highly technical. The material here covers the core ideas of Kant's transcendental analytic in *Critique of Pure Reason*. Our aim is to deliver up the *Realdefinition* of the categories from the logical and the transcendental perspectives of the Critical Philosophy's theoretical Standpoint. Propaedeutic to this discussion is the discussion of the power of imagination and of Kant's transcendental schemata of inner sense, by which concepts obtain their link to intuition. In the two perspectives covered in this Chapter we examine the Critical ontology of sensible objects and the thinking Nature of the Organized Being represented through and realized by the making of determinant judgments. Not surprisingly, therefore, we find the scope of topics to be broad, reaching out to take in numerous considerations outside the division of the process of determining judgment, and we find a number of key Critical definitions for various technical terms. We also find ourselves compelled to peek ahead and introduce some key and important ideas for which the full explanation cannot come until later in the treatise. All this makes this Chapter one of the most challenging, and the reader will find the Glossary and other appendices to be important aids for understanding the material here.

In Chapter 9 we complete our theoretical treatment of the *Realdefinition* of the categories by examining them from the hypothetical and empirical reflective perspectives. These dynamical perspectives shift our focus to the examination of the regulation of thinking by the power of speculative Reason. The metaphysics proper of these perspectives take us to the Critical ontology of Nature and Reality. The chapter begins with a review of Piaget's theory of equilibration through compensations and regulations. This provides us with a practical overview picture of how mental structures are built up in infancy to establish the child's conceptual universe from a foundation of practical sensorimotor schemes. The contextual setting this provides puts us in a better position to understand the Critical epistemology of Nature and Reality in the following section. Here we illustrate the connection between Kant's and Piaget's theories by means of a summary diagram of information flow in the noetic logical divisions of Kant's system. We give this systematic representation the name "the cycle of thought." Next we examine the cosmological Ideas as regulative principles for thinking-in-a-context. The ontology of speculative Reason from this perspective involves the Critical *Realerklärung* of the ideas of the world, Nature, Objects, objects, and things. Finally we take up the empirical reflective perspective, in which we find Kant's theory of Critical empiricism and the Critical meaning of Reality.

Chapter 10 introduces the three superior Critical perspectives of Kant's epistemology. These are called the Standpoints. The theoretical Standpoint views Critical epistemology in terms of understanding. The practical Standpoint views Critical epistemology in terms of practical Reason and the determination of the actions of an Organized Being. The judicial Standpoint views epistemology in terms of judgmentation in general and is concerned with the systematic organization of knowledge. A central idea in this is the idea of perfection in general, which specializes under the three Standpoints as logical, practical, and aesthetical perfection, respectively. The Chapter provides a thorough examination of logical perfection and concludes with a briefer introduction to the other two, which will be covered in turn in the later chapters.

An important idea introduced in Chapter 10 is the idea of practical causes and the causality of freedom. These ideas belong to the practical Standpoint of the Critical Philosophy. As ideas with merely practical objective validity, it is important that we tie them to observable effects, which are the only objectively valid ground for inferring the *Dasein* of any practical object. We find this tie point in the empirical *Existenz* of the Self. In Chapter 11 we examine the practical foundation for the idea of the Self. Perhaps no phenomenon in psychology is more universal than that each one of us divides the world into two parts: that which is my Self, and that which is not. The Self,

in contrast to the *I* of transcendental apperception, is an empirical phenomenon. Because Self is bound up with the origin of the idea of practical causality, we begin the chapter with a discussion of the problems that arise in treating practical causality as an objectively valid idea. Our starting point is the automaton theory. From there we move on to discuss science's requirements for its supersensible constructs. This is followed by a discussion of the idea of the individual and individuality. We conclude with a description of the emergence of the person's idea of Self as this evolution is seen through the eyes of empirical psychology. The material in Chapter 11 serves as a prolegomenon to our practical theory as well as to the theory of the judicial Standpoint.

Our examination of the power of practical Reason from the practical Standpoint begins in Chapter 12. In this chapter we set up the context for an objectively valid theory of practical Reason. This real context is nestled in that phenomenon which is the most basic to any discussion of the Organized Being model, namely *life*. What does "life" mean? Here we do not ask "what is the meaning of life?" in the context of any "why are we here?" Rather, we inquire into what we mean when we say something is "alive" and from where this meaning draws its origin. Slightly over half of this brief chapter is devoted to this discussion. Its central point is a necessary distinction between *biological* life and *mental* life, and we shall see that the grounds for ideas of the first are found in the second. From there we proceed to discuss fundamental ideas that characterize the phenomenon of practical reasoning, and from these ideas we obtain our required contextual link to possible experience. The first of these is the idea of appetitive power, i.e. the capacity of an Organized Being to be, through its representations, the cause of the actuality of the objects of those representations. This idea is closely related to another idea, namely that of desire. We will see that the idea of appetitive power takes us forward in the practical Standpoint to the power of pure Reason to be a practical Reason. The idea of desire, on the other hand, will lead us into the judicial Standpoint and the process of reflective judgment in Chapter 14. We finish Chapter 12 with the examination of the phenomena of *choice* and *will*, which in turn take us back to the causality of freedom.

Chapter 13 discusses practical Reason and the capacity of practical Reason to also be a *pure* Reason. Because the practical objective validity of the idea of practical Reason is based on one's observable and apparently spontaneous actions, the Nature of the *Existenz* of practical Reason must be understood in terms of the determining ground for such actions in the Nature of the Organized Being. This involves an idea of causality but causality in the form of a "because" or a "why" rather than in the form of a phenomenal mechanism. Thus we are led to consider the transcendental meaning of the rather notorious idea of "good" (and its opposite, "evil"). As a preparation for and a context of this discussion, Chapter 13 first reviews various ideas of "good" and "evil." These ideas have consequences for the actions of an Organized Being, and so we next review the empirical findings of developmental psychology pertaining to these consequences. After this we are ready to undertake the Critical examination of pure practical Reason, which brings us to what is arguably the most famous part of Kant's philosophy: the categorical imperative. In this treatise we present a new explanation of the categorical imperative. This new explanation, while congruent with Kant's classic descriptions, is made subject to the requirement for objective validity in all ideas of non-physical causality, namely that it meet up with the requirement that there be a transformation that connects it to physical causality in the same appearance. Following this we take a short detour to discuss the Critical idea of happiness as a material principle working side-by-side with practical Reason's categorical imperative. We close Chapter 13 by discussing the formulation of ends and means.

Chapter 14 begins our discussion of the judicial Standpoint. In the preface of the first edition of *Critique of Pure Reason* Kant made the immodest claim that within its pages the reader would find "that there must not be one single metaphysical problem that has not been solved here, or at

least to the solution of which the key has not been provided." However, it has long been evident to Kant scholars that the *finished* solution to every problem is *not* presented in the first *Critique* (else Kant would have had little reason to write the other two!). Indeed, Kant remarked in the second edition of the first *Critique* that the task of "the illumination of those obscurities that are hardly to be avoided at the beginning of this work" would fall to "those deserving men who have made [his system] their own." It is only fair for me to notify the reader that in Chapter 14 we encounter our first serious venture beyond what Kant explicitly and systematically analyzed, namely the Critical analysis of the process of reflective judgment. Reflective judgment has a two-sided character, as befits its role as the bridge between theoretical understanding and practical reasoning. On the side of sensibility we have *aesthetical* reflective judgment. Representations of aesthetical judgment are sensible (affective perceptions) but not objective. We will see that Critical aesthetical judgment is reflective judgment looked at from the transcendental-judicial and the empirical-judicial reflective perspectives. The Chapter uses these perspectives to develop the aesthetic Idea and the *momenta* (aesthetic functions) of aesthetical reflective judgment.

As becomes clear in Chapter 14, we cannot travel far in our exploration of reflective judgment without coming to terms with the Kantian idea of *Lust per se* (in its disjunctive character of *Lust* and *Unlust*). This topic occupies all of Chapter 15. The theory of *Lust* is none other than the Critical metaphysic of *psyche* in Organized Being. Because Kant left us with very few remarks concerning *Lust per se* (as opposed to the *feeling* of *Lust* and *Unlust*), we again follow Aristotle's *dictum* and approach the question of *Lust* from psychological phenomena (emotion, motivation, etc.) that exhibit in experience the sort of character symptomatic of the idea of *Lust*. We will find the undertaking in this Chapter must Critically address a number of key ideas before we are in a position to deduce our *Realerklärung* of *Lust* as the power (*Kraft*) and organization of the adaptive *psyche*. Included among these are Critical definitions of act and action, the Critical ideas of *Kraft* (power) and adaptation, and the Critical *Realdefinition* of equilibrium. The Chapter concludes with the deduction of the *Lust* principle, which is the Critical principle for acting in the particular.

Chapter 16 explores the teleological function in judgmentation. It is the longest Chapter in this treatise and, in some ways, one of the most challenging. In it is found the weaving of a number of philosophical and metaphysical threads, and the Chapter itself makes up nothing less than a transition metaphysic of the principles of *nous-soma* reciprocity. We begin with a discussion of teleology in relationship to science and whether teleology can have any objectively valid context within science. Our discussion therefore is undertaken from the perspective of Rational Physics, and we will discover that the teleological function finds objective validity in the idea of *the synthesis in continuity* between reflective judgment and the animating principles of *psyche*. This synthesis involves four functions, one for each of the four general titles of representation: objectivity, the aesthetic Idea, the judicial Idea, and transcendental Meaning. We also introduce in this Chapter a number of other important Critical explanations, two of the most important of which are the idea of *motoregulatory expression* and the Critical *Realerklärung* of *motivation*. The Chapter finishes up with the exposition of the four *animating principles* of *psyche*, which establishes the bridge between Chapter 15 and the material that follows Chapter 16.

Implicit in the discussion in Chapter 16 is the role of the sensorimotor system in the formation (*Gestaltung*) of the pure intuition of outer sense. This pure intuition is called *space*, and is the topic of Chapter 17. The Chapter begins with a Critical review of the various notions of space that have been put forward over the centuries before undertaking the *Realerklärung* of space as it must be seen under Kant's Copernican hypothesis. We will find that the objectively valid explanation of space is purely formal, is a transcendental aesthetic, and that the objective validity of the idea of the intuition of space is found only in the judicial Standpoint of the Critical

Philosophy. The theoretical understanding of the pure intuition of space, on the other hand, is strictly a formal, that is to say *mathematical*, understanding as a process of presenting the pure form of intuition of outer sense in a *topological structuring*. This structuring applies to all the modalities of outer sense (not merely visual and tactile), and its possibility relies upon not only the receptivity of sense but also upon kinæsthetic feedback from actions of motoregulatory expression.

In Chapter 18 we come to the deduction of the *momenta* of teleological reflective judgment, which completes our development of the theory of reflective judgment. The discussion here again calls upon the judicial Standpoint, this time from the hypothetical reflective perspective of Rational Cosmology. Teleological reflective judgment is tasked with the structuring of Nature as a *system*. However, like aesthetical reflective judgment, the representations of teleological reflective judgment are non-cognitive and can call upon only a *subjective* principle of judging. We therefore begin with a detailed examination of the cosmological Ideas from the judicial Standpoint. The most important finding of this examination is: all our concepts of objects originate in subjective judgments of belief. Because teleological reflective judgment directly serves practical Reason, we also will find that it is intimately tied to aesthetical perfection. Thus, we next examine this important type of perfection. Acts of teleological judgment serving aesthetical perfection are judgments of transcendental topic, and so we next examine the character of judgment with regard to this determination. The orientation of Reason follows the pathway of perfection; however, teleological reflective judgment is also tasked with making a *system of Nature* and so we must next examine how this is possible. To do so we take up an examination of Kant's applied metaphysic of Nature, but we do so not from the theoretical Standpoint, which he published, but from the judicial Standpoint, which he did not. From this we obtain a *natural schema* of judgmentation in general. Finally we come to the *momenta* of teleological reflective judgment through a synthesis of the ideas dug out of the preparatory analysis.

Chapter 19 takes us from the judicial Standpoint back to the practical Standpoint of pure Reason. The process of reflective judgment is the bridge between knowledge of cognition and pure Reason. As always we begin with the phenomena that inform our development of the Critical theory and work inward to understand the psychological Nature of pure Reason. In this Chapter we introduce two key ideas, namely the manifold of practical rules and the motivational dynamic in judgmentation. Along the way we must also deal with two phenomena, seemingly in contradiction with each other, that nonetheless illustrate human behaviors that strike as closely to the Nature of human Reason as it is possible to come with appearances. These are: the observable capacity of human beings to make moral judgments and the equally observable capacity of human beings to act in apparent contradiction to what most of us take as moral values. This latter capacity is strikingly illustrated in cases of people who are said to exhibit an antisocial personality disorder. In this Chapter we also return to the ideas of 'value' and 'value structure' and examine the connection of these ideas with those of 'evaluation' and 'motivation.'

Chapter 20 continues in the practical Standpoint. Here we start with the completing of our compilation of the Ideas of metaphysics proper by deducing their statements from the practical Standpoint. It is in this part of the Chapter that we come upon the Critical Ideal of the *summum bonum*. With the practical Ideas in hand, we next undertake the deduction of the *momenta* of the process of practical judgment. These we call the *categories of freedom*. Finally we come to the Critical *Realerklärung* of the power of choice. The synthesis of appetition is introduced and the relationship of appetition to practical judgment and ratio-expression is discussed. With this we have the completion of the Critical presentation of the faculty of pure practical Reason.

Chapter 21 is the last of the 'theory' chapters. Here we take up the Critical examination of the

transcendental aesthetic of time. Our objective is to lay out ideas of the necessary *theoretical conception* of the process of the synthesis of subjective time. We begin by reviewing the major themes in which 'time' has been conceptualized by different thinkers. Following this we examine the pure intuition of time, which we find to be the process of synthesizing an order structure in sensibility. Our examination of this structure brings us to the somewhat startling result that subjective time (which is the outcome of the synthesis of the pure intuition of time) is not one-dimensional but, rather, must be regarded in terms of a multi-dimensional timescape. Finally, we examine the transcendental considerations that must govern our concepts of objective time. This leads to the idea of transcendental *free time*, which is the logical order of form for the causality of freedom in the processes of judgmentation and Reason.

In the body of the treatise we left hanging a few loose ends concerning the unity of consciousness. Chapter 22 briefly returns to these questions and examines several empirical findings that some have seen as challenging the idea of unity of consciousness. We find that these phenomena fit quite smoothly within the theoretical framework we have set out in this treatise and that, indeed, they do not gainsay the principle of transcendental unity of apperception.

No doctrine of science can achieve the status of a science proper without the use of mathematics. However, for a science to maintain objective validity and objective truth in its theories the mathematics upon which it relies must itself be objectively valid and we must know the limits and boundaries within which it operates. Chapter 23 therefore undertakes the Critical examination of mathematics and its axioms and describes some of the real definitions and real axioms under which a true Critical mathematics must be developed. We will find that there can be a Critical mathematics wherein is contained real objective validity in mathematics. We will also find there is a hypothetical mathematics that gives practical service to science but which cannot be used for ontology. Both these sides of pure mathematics are necessary and essential for any exact science.

Chapter 24 brings the treatise to a close with the Critical doctrine of method. The central topic of this Chapter is how we must treat ontology in applied metaphysics in light of the Critical Philosophy. Here a key requirement is how we are to properly understand *noumena* and the limits of objective validity in ideas of *noumena*. The horizon of possible experience is introduced in this Chapter, and ways by which the natural dialectic of pure Reason trespasses beyond this horizon are discussed. In part to illustrate the latter, and in part to stand against the rise of New Platonism in science, a section of this Chapter is given over to a critique of the Big Bang theory of cosmology. The Chapter discusses the relationship between mathematics and the physical sciences and sets down the key principles of method for Critical science. The final section concludes the treatise with some thoughts on where we are to go and how we are to proceed from here in bringing into being a Critical science of mental physics.

The twenty-four chapters of this treatise examine in detail the entire phenomenon of mind, bring to light its fundamental principles, and set down the explanation of how this most human phenomenon must be understood in the light of what is necessary for the possibility of experience as human beings come to know experience. This treatise is a work of philosophy, but philosophy as the science of the general. I think the theory presented here will be found to be valuable not only for psychology and neuroscience, but for science in general in all its branches – including some arenas of scholarship that are not yet proper sciences, but can become proper sciences by proper application of Kant's principles. And perhaps this larger domain of possibilities will some day come to make up the most enduring contribution of this work.

Richard B. Wells
August, 2006