INTRODUCTION

DIALECTICAL THOUGHT & COMPLETENESS

Modern philosophy is a liberal arts discipline at the edge of science. Or is it a complex, universally applicable way of approaching problems to find exact solutions? Even philosophers will choose different sides in this discussion. If the first definition of philosophy, that it is an academic discipline, is the one we hold to, then we do find that it is beset on all sides—politicians want to cut liberal arts funding and scientists are annoyed with philosophers. The difficulty in producing a product from philosophy seems to be too much for results-driven minds to bear. But if philosophy is instead a process we go through when we solve a problem, perhaps this initial attempt at a definition of it is too overbearing. Perhaps philosophical thinking is something most, if not all, people do from time to time, and academic departments exist to aid the development of these skills.

This book will walk the line between philosophy as method and philosophy as academic discipline by allowing it to be both a method of thinking and a department at a university. It is the goal of this book to explain at a fundamental level why binary arguments—such as the one about what philosophy is—routinely defy attempts to reach a satisfactory conclusion and elaborate a way of dealing with this issue so that the problem is resolved to a minimal standard of satisfaction. In compensating for a formal deficiency inherent in abstract rationality, thinkers have a surprisingly large number of options available to them.

But what does this formal deficiency look like? What does it consist of? How can we best understand it, in order to more thoroughly articulate the points we wish to make while bypassing those we do not?

The formal nature of argumentation is something which has not escaped notice in recent philosophical writings. Many prominent philosophers of the twentieth century would agree that there is an unresolved formal tension in philosophy itself. What this means is that, whether we discuss ethics or epistemology, we seem to run into the same sorts of divisive, perspective-distinguished issues. Gödel, MacIntyre, Einstein, and others have challenged the formal structures they found in

their research. This book will attempt to draw upon these and more thinkers in order to identify common structural problems so that future thinkers can chart a course around such difficulties, learn where to look to improve upon existing thought structures, and build a common discourse which can reach a level of functionality never before seen.

Whether we discuss ethics through the lens of emotivism or attempt to broadly characterize human reasoning to replicate it in computer programs, the limits we run up against have to do with what can be said—and with what must, by necessity, be left out of our description of what we find. This book introduces a new mechanism known as the metadialectic, which discusses the formal limits of description and argumentation to frame the now-common philosophical discussions at the very edge of reason itself.

The goal of *Formal Dialectics* is to show that, by respecting the limits of what can be said, we can spend less time trapped in arguments that wind up being unhelpful. By adding a formal component to our thought, we can make the discipline (as well as the activity) of philosophy more clear. In turn, allowing philosophers to more adequately address difficulties inherent in abstract thought may have far-reaching benefits across academic disciplines.

What is Metadialectics?

Metadialectics is a long word. It's also a trendy recent development to simply add "meta" to the beginnings of things. Nonetheless, it makes a simple handle—the alternative is to refer to the metadialectic as the dialectic of rational incomplete form—and we will be using it in this work to refer to thinking which self-referentially accounts for its built-in limitations by leveraging heuristics designed to balance arguments so that, beyond convincing a small subset of believers and appealing to confirmation bias, the real issues behind the arguments can be addressed with less tribalism. Metadialectical thought is thus *itself* a core component of this work, which seeks to inspire thinkers to move beyond the limits linguistically-mediated abstract reason is seen to impose upon its practitioners. Moving beyond the contemporary boundaries of theory is a difficult endeavor which requires thoughtfulness as well as an open mind. In service of the illustration of this end, we will be conducting a survey which is intended to be comprehensive enough to ground this new self-referential framework in the experiences of philosophers and thinkers without the need for too much explanation.

This would be a difficult path to follow if dialectics itself were a widely studied course of thought—the obscurity of the word *dialectic* itself does nothing to simplify the path ahead. However, the minimal observation of the activity of the philosophical field in recent years is enough to inform us of a struggle taking place. A recent trend involves famous physicists following in the footsteps of Richard Feynman and Ludwig Wittgenstein, arguing that philosophy itself is ultimately a worthless discipline. The irony of the matter is astounding: Feynman and Wittgenstein both merit consideration as serious philosophers, even when they *do* echo Nietzsche and make disparaging remarks about the value of the discipline of philosophy!

One further irony involves the *worth* of these critiques! Feynman's perspectives in physics have made modern quantum theory possible, have made it intelligible to the mere novice, and have given birth to such marvels as quantum computing, which certainly seems to be making large strides—and which certainly merits a good deal of expensive empirical research! Feynman's embrace of the Atomic Hypothesis of Democritus as the single-most important scientific sentence, for example, is a beautiful philosophical theorem, though it bucks the canon of the philosophical discipline and embraces as primary a philosopher who is more famous in physics-oriented circles than the greats of the traditional Western philosophical world, Plato and Aristotle.[1]

Yet, as Nietzsche might jarringly reprimand us: "Supposing truth were a woman? What then?"[2] What is the benefit, he might ask, in pursuing *truth*? In pursuing understanding? In preferring an intelligible quantum mechanics or a scientifically useful quantum computer? Why on earth do people see value here, as opposed to elsewhere? A quick reflection upon this line of questioning yields a difficulty: there is not any comprehensive statement of fact that can be found in answer to these questions. All answers to the question "why do we value truth?" turn out to be incomplete! Truth itself cannot be justified without reliance upon the assumption that the justification is *true*. For example, whether it turns out to be *true* or *false* upon investigation that we value truth because it allows us to act in the world by rendering it predictable, our only reason for investing any amount of energy in the investigation was, in the beginning,

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[1] The argument runs thus: the most important single sentence in all of science is the Atomic Hypothesis, or, as Feynman says, the Atomic Fact. All matter is made up of tiny particles that move around and interact with one another, producing the visible world we interact with.

[2] Friedrich Nietzsche, *Beyond Good and Evil,* trans. Walter Kaufmann, (New York, Random House, 1966), 1.

to find out what was true! We cannot escape its grasp upon our minds! But, despite these paradoxes, we do have *some* reason for believing as we do that truth is useful to us, right? What do we learn, by concluding that our concept of truth is formally incapable of justifying itself?

A philosophical problem cannot exist, Wittgenstein maintained—it cannot be considered a problem that we do not fully understand why we live as we do! Instead, we can only semi-seriously puzzle over such a question. Perhaps this course of activity is interesting or even fun, but the insight Wittgenstein has called our attention to is of critical importance: finding an answer to the set of questions referred to by how we live or what we value cannot in itself change the way we live.

To change how we perceive ourselves and our actions, even if we answer a question about the ideal way to do so to our satisfaction, is an impossible task—the self-reference implied in the studious act itself entails a knowledge of how the immediate answer will affect its subject, and so-on, until we discover that knowing how to live cannot occur without a LaPlacian deterministic universe apprehended by the human mind![3] Instead of providing our answer in terms of ideals or dogma, perhaps it is best to bring a mathematical, abstract quality to it. Perhaps our problem must be analytically and abstractly formalized if it is to be solved, just as a mathematical function is capable of generating many outputs from different inputs.

Countless minds have taken in parts of the evidence perceived by Nietzsche, Wittgenstein, and Feynman. The modern collective reluctance to embrace the academic discipline of philosophical thought can be no accident. The arguments to which these minds appeal are deep and clear—some of them were initially given voice by Socrates himself. The mechanism which enables such questioning is what philosophers refer to as dialectics.

Imagine a coin flipping through the air: one person has been asked to call it before it lands. If that person calls it heads and it lands heads up, has that person discovered the truth of the universe? Or did they just make a prediction and get lucky? In any case, it is impossible to imagine the complete truth of circumstances being described only by the reductive utterance: heads. In fact, such utterance is only meaningful due to extra-circumstantial knowledge brought to the endeavor by its participants.

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[3] Pierre-Simon LaPlace formulated the concept of a deterministic universe, in which knowledge of the full state of things at a given time could be combined with knowledge of the full set of laws of nature to calculate any other state of the universe at any other time.

Two people having a conversation about the coin flip approaches dialectical engagement. For dialectic to happen, questions must be asked and answered. In general, dialectical engagement involves something happening which is then explored. Hence, if one party correctly called five coin-flips, and the other party asked how this was accomplished, and some explanation was ventured, the coin flip discussion could progress to the level of dialectical engagement. In this example, a dialectic might involve the caller's explanation being interrogated by the flipper. Perhaps there is some sort of system the caller has been using to correctly judge the coin's trajectory, and the flipper disbelieves or wants to learn this system. Dialectical engagement is thus much deeper than the simple result of the call, the discussion of this result, or some relationship between the two parties involved in the event. Instead, dialectical engagement shares some characteristics with what the education system terms 'critical thinking' but involves a much deeper view of its subject.

There are patterns which unfold around the desire people share to get to the bottom of things. Dialectical reason itself has certain habits which unfold repeatedly in different times and places, with different subjects. This book contains seven different dialectical archetypes, each of which has been independently discussed, in order to provide the reader with a general idea of what does and what does not constitute the body of thought formulated within a given boundary so that the concept of dialectical engagement can be addressed from a familiar standpoint.

The six familiar archetypes consist of three practical ones and three theoretical ones. Perhaps unsurprisingly, the practical dialectics consist of history, science, and religion. The theoretical dialectics include the negative and positive "spins" we put on, and the *elenchus*, an ancient means of questioning which is subject-agnostic and which leads people to *aporia*, a condition in which the subject of investigation contradicts itself.

Each of these six archetypes has been addressed in philosophical literature before now, though no one has yet given them names. This book is intended to introduce the seventh dialectic, the metadialectic, as the means by which the categorization of each of these six others as archetypical is possible. This system of categorization is designed to remain open, in the way scientific analysis does, to produce a well-conceived, rational mechanism by which philosophical thought may be clarified.

The Concept of Dialectic

Dialectical thinking encompasses the reasons for choosing heads or tails in a coin flip: calling the coin potato salad will not win the bet—ever. At least saying heads or tails will net a 50% chance of being correct. The dialectic is a unique way of focusing upon an issue—that is, deciding what to call the coin—by describing the possibilities in as much detail as necessary to either correctly call the coin "heads" or "tails" or to explain why 50% is the best probability of a correct call one can achieve. Classically, dialectic happened mainly in conversation, but in modern times it is becoming more common for textually-engaged individuals to use dialectical means to resolve their questions alone, in the abstract—it is becoming progressively more likely for this type of engagement to eventually be something people engage in with machines, for instance, but social media also provides an outlet for an increasingly robust discussion of abstract concepts.

In *After Virtue*, Alasdair MacIntyre argues that people with different foundational assumptions can never reach the same conclusion. The disruption to rationality caused by the prevalence of belief in the effectiveness of this process, he argues, can even be so severe as to lead to a new dark age. Emotivism, as MacIntyre would say, does more to prevent rational discourse than it does to facilitate it—even though emotivist thought masquerades as logical argumentation, including reason and justification as well as the feeling it supports, which turns out ultimately to drive it.

MacIntyre is not the only contemporary philosopher to take up this issue. In fact, it can be argued that the mission to discover a logical common ground unassailable by the critiques of emotivism or the parallels which prevail in the work of other thinkers transcends the typical boundaries of discipline! MacIntyre studied primarily ethics, but the political philosopher Michel Foucault described hermeneutics—a system of ideological, linguistic encryption that must be redefined by every passing generation—as a key part of power dynamics. The rhetorician Kenneth Burke claimed that rhetorical assumptions are capable of influencing the conclusions reached by their readers, essentially forming a circular argument which, once accepted, can seldom be set aside. Even computer scientists, such as Ray Kurzweil, face the difficulties in finding meaning through the analysis of utterance.

Each of the thinkers mentioned just now—in addition to the hundreds of cognitive psychologists currently experimenting with language, priming, situational modelling, and reasoning even in a more general

sense—are unpacking a hidden component in our speech, in the system of abstract representation we think of as language. This component is the understanding brought to any given situation in the form of pre-existing content in the brain of each participant. Pierre Hadot, however, in *The Veil of Isis*, cautions us to avoid looking too deeply for explanations which are staring us, as it were, right in the face—the truth, he says, of the Veil of Isis is that it is *not* a façade at all. What we presume to be hidden, instead, lies in plain view.

It is said that the ancient Greeks were unable to see the color blue because they did not possess a word for it. The ancients were unable to *speak of* the color blue—and, therefore, it cannot be proven that they saw it. Cognitive science has shown that, when something remains unspoken but is nonetheless in plain sight, it is not precisely correct to say we do not perceive it. However, it *is* in fact acceptable to argue that, since it is not spoken of, it cannot be abstracted and thus will play a different sort of role in the functioning of our minds. This argument is a sensible one, as modern anthropology has yet to fully resolve the conundrum of linguistic determinism in color perception—it is essentially still an open question. Regardless, modern Greek people have a word for blue and can certainly see it—just as philosophers in the future will have different categories of dialectical thought to draw from as they analyze arguments and work to bring reason to bear upon problems. The linguistic-abstract system we think of as *rationality*, or *reason*, is in itself an *open system*. This means it grows and changes over time, and in response to the variation of environmental interactions.

If we were to allow ourselves a reprieve from attempting to poke around *behind* the Veil of Isis for a moment and wanted to uncover something new from our current field of vision, there would be simply no better place to start our search than the immediately apparent conceptual relationships that form the fields of science, the religions, the historical narratives—and the dialectical modes of discussion which accompany them. What are the commonalities between the most widely accepted sorts of stories human beings tell one another? What sorts of questions are most commonly asked of these narratives, and why?

This book will attempt to identify the various common grounds and highlight archetypes already present in the cultural schema people presently use to communicate. These archetypes we will term *dialectics*. *Dia* is a Greek word meaning, roughly, the way through something. *Lectic* is a derivation of *logos*, a word which was used to represent thought, ideas, minds, language, etc. We understand, then, the word *dialectic* to refer to

the way through the body of thought at stake when we investigate a complex abstract concept.

The most common threads of the various different ways through thought to analysis, through idea to application or through argument to conclusion will be referred to as dialectical archetypes—hence, an atheist arguing with a theist about the existence of God can be thought of as a religious narrative dialectic with one party arguing *for* and the other arguing *against* the primary thesis under contention; i.e., God exists. From each of these standpoints, an impressive variety of entirely different logical frameworks may be built. Questions as to the nature of God or the implications of his existence are most frequently thought of as religious dialectical frameworks, but it is nonetheless possible to utilize the same sorts of framing mechanisms under other circumstances, yielding concepts such as secular spiritualism.

Each dialectical archetype introduced in this work will be subject-oriented. The breadth of the survey is to be our main priority, but we will attempt to provide the reader with a reasonable amount of evidence as we go. The discomfort of the reader should be alleviated by our focus upon the formal constraints of abstract thinking, rather than our interest in a particular position regarding any particular argument. Each dialectical mode of thought serves a particular goal, involves a particular type of subject-matter to employ in efforts to attain the goal, and starts from a particular set of assumptions or a predefined sort of assumption which then shapes everything that happens within the frame we refer to when we call that dialectic by its name. Our successful execution of this rational task then, is easily evaluated in the terms of logic: validity and soundness.

An additional, surprising feature of each of the dialectical archetypes is their availability to combination at the inception of the conversation which spawns them. For example, the view that science is the study of *how* God created the world, or the study of the history of a particular religion in terms of recorded events rather than cosmological myth: each is an example of a body of thought which employs *multiple* dialectical archetypes in service of its end. In fact, the key argument this book seeks to make is that we can improve our understanding, our communication, and our argumentation precisely by acknowledging the need to argue across different dialectical forms.

The fact that more than one dialectical archetype can be employed in a single chain of reasoning is, at first glance, quite disconcerting. Were the dialectical archetypes to be complete, there would be no possibility of interplay between them! Completeness in the sense of a statement is a difficult concept; we might say that a statement was complete when it fully

elaborated the nuance of the circumstance which caused its utterance. That is, a person could say some statement about a given furniture layout in a particular apartment was complete only when an audience to the *spoken statement and only the statement itself* could infer the street address or the color of the building said furniture was in from the statement. Completeness with respect to speech acts is a concept which, when explored, seems to contradict the very purpose of speaking in the first place. That is, speech is useful *in the first place precisely because it calls our attention to some small part of the world in particular*.

Kurt Gödel, a close contemporary of Einstein's and perhaps the most brilliant logician in history, put forth in the early twentieth century an argument that mathematics itself cannot even claim to be a truly closed loop—*complete* is the technical term for this—due to formal, structural limitations inherent to the very mechanism which allow mathematicians to use mathematical models for proof or communication! Hence, even the most rigorous mathematical model of a given phenomenon in the world cannot tell the *whole* truth about what is being modelled—even when the subject of such a model is an abstract system of mathematical language itself.

This simple feature, namely *incompleteness*, of the main dialectical archetypes, is the reason the Dialectic of Enlightenment and the Material Dialectic will not be discussed in this book. Instead of limiting the reader's focus and calling attention to a single part of this larger philosophical puzzle, the focus of this work is wider and broader—*Formal Dialectics* will cover more ground in order to study the phenomenon of dialectical reasoning in each of the major forms to make a point about how thinkers might correct errors before we make them.

A third feature of the dialectics is the irreconcilability with one another that dialectical patterns exhibit once formed. That is, once foundational assumptions have been chosen, it is impossible to backtrack without re-evaluating every abstract comparison made in a given line of argumentation. This incompatibility between arguments built upon different formal foundations is the root of the political nature of even the most innocuous of dialectical arguments. Immanuel Kant explored this property of abstract thinking in his *Critique of Pure Reason*. The section entitled Antinomies is a case study in which various different assumptions are made, from which arguments are formed, contradicting one another irreconcilably *despite* the contradictory conclusions each of them reaches. The arguments presented for each point are understood to be valid and sound, yet each of them is on display as part of a true antinomy—an equally good argument with the opposite conclusion.

Kant's point is well-taken: we must be careful with reason! We cannot trust it too completely—a thread which echoes from Socrates through all of the most analytical philosophers since his time. It is a tool we can scarcely help but bend to our own ends. For example, when we use it to justify our positions, it can become too self-serving to be particularly helpful. In fact, when applied incorrectly, reason can harm the process of decision-making it is generally assumed to aid.

All three of these primary attributes of each dialectical mode of thought will be elaborated further in the text to follow. For now, it is enough for the reader to know that dialectical reasoning, in each instance of its occurrence, is *subject-oriented*, *incomplete*, and *irreconcilable* with external dialectical frameworks. The main body of this book will address the six main sorts of archetypal dialectical forms one at a time, showing each to work in a fundamentally different fashion from the others. The study will take shape in the form of the seventh dialectic, the *metadialectic*, which could never exist without the others. The metadialectic is the archetypal line of reasoning which arises after a study of the other dialectics.

Among the questions addressed in this work, the reader will find absolute truth, free will, chaos theory, complexity, the ideal role of language, the concept of abstraction, and many other interesting subjects. Brevity is nonetheless the priority here, as this work is intended to deal with a common ground shared by many of the various issues it touches on. An extensive bibliography thus follows the work so that the curious reader can inquire further into particularly interesting subjects.

Background

Two key philosophers from the twentieth century have set the stage for this book: Theodor Adorno and Ludwig Wittgenstein. The former was a critical theorist and the latter was a philosophical skeptic, but betwixt the two they manage to lay the foundation for a philosophy of language that will prove useful in theory as well as in practice. Wittgenstein and Adorno are among the most profoundly philosophical thinkers of the twentieth century, and as such, they form a large part of the basis of this work. Without either of them, it would be much more difficult to formulate the key concept of metadialectical thinking.

The late Robert Pirsig also played a foundational role here. His concept of philosophology is one of three main branches of the academic discipline that have emerged, not entirely distinct from one another. Additionally, though this book is not distinctly derived from Pirsig's metaphysical

inquiries, it does draw concepts such as *mythos* and *logos* directly from them, and could even be said to exist as an answer to the question as to the role of dialectic after *Zen and the Art of Motorcycle Maintenance*.

Karl Popper's great work *The Open Society and its Enemies* is the final great influence upon this book. Popper was a well-respected philosopher of science, and he argued quite convincingly that reason itself demands a certain openness to exploration—an openness which is diametrically opposed by nature to fascism and dogmatic thinking. Due to his immense aptitude for analytical, scientific reasoning, Popper's study of the conditions in which quality science becomes possible is perhaps still the clearest available; his observations about the structural conditions under which quality science can emerge are still revolutionary.

At the heart of the metadialectic is an epistemologically relevant observation about the nature of truth which follows from a study of how truths come to be abstractly formulated: truth as a statement is *made*, rather than found. True statements about the world must involve creativity, by definition. In some sense, this means that scientific development is necessarily coupled with liberal pursuits such as philosophy. It has to be, if the scientist's ability to adequately describe his or her observations (or benefit by reading journals which contain the observations of others) is fundamental to good science. Karl Popper's influence upon this work consists in the recognition of the fact that the fundamental process of science itself must be a dialectical undertaking. Chapter Six analyzes this concept in some depth as a means to unpack the scientific dialectical archetype.

It may be possible to view the truth of the world as a thing beyond the ability of language to state. In fact, as Bertrand Russell famously defined the concept of world, "The world is everything that is the case." Unfortunately, truths about the world *must* be stated in order to be useful. The purpose of this work is to facilitate the use of reason to answer questions—the fact that the world itself is too complex for any application of language to completely encapsulate it is not only self-evident, but it is a necessary condition for language to become useful.

However, the question arises of what makes us so certain we have phrased a statement correctly. Einstein's criterion of elegance is certainly one way of approaching this issue, but the problem runs deeper. In fact, this issue bears ties directly to the primary question that has motivated all of philosophical reasoning throughout the ages: Why do the attempts we make to explain the world around us fall short? From the attempts to detail atomism ventured by Democritus until the present, every instance of

philosophical work has involved an unpacking of an (novel or otherwise) explanation!

In this sense, philosophy itself *is* the recognition of the fact that humanity collectively never seems to be able to do perfect justice to the explanation of an observed phenomenon. As in the coin flip example above, there is not necessarily a way to express the entire truth of an issue—one time the result is heads, the other time it is tails, and we need to get into probability theory to explain *why*.

Thinkers who wish to succeed at the enterprise of free thought must learn to accept the fact that, while occasionally the conclusion of the argument examined will be correct, this does not exempt it from further analysis. Instead, the concept lingers and grows, becoming healthy through nourishment and connectedness to a web of understanding or fading into a sickly state of disrepair and isolation. The unfortunate "flat earth movement" is an example of distrust in the general web of scientific views leading individuals to attempt to make scientific arguments in favor of a conclusion which is anemic and frail and isolated from the body of knowledge. It is, of course, absurd to believe that the earth is flat, and yet people freely choose to hold this belief—the need for a connection to other facts has been neglected and the specter of emotivism rears its ugly head! In order to truly become a "flat-earther" one must decide to first assume the world is flat and then interpret all available evidence on the basis of this foundational assumption—in fact, one must *ignore* a great deal of evidence to the contrary. Not only emotivist, the flat-earth movement thus reveals itself to be a *negative dialectic* merely masquerading as scientific.

In fact, all foundational assumptions, or views we choose from the start to agree with, are the most dangerous if allowed to become decrepit and isolated from the rest of the body of our knowledge. This is why Nietzsche questioned the value of truth! In addition to the (unethical and probably decrepit) value inherent in controlling other people's minds and therefore actions, thus allowing people to obtain power by the telling of lies, untruth is something which leaves us searching for a better explanation, and the valuable act is this searching itself, not the conclusion we reach when we declare that to be the end of it. Truth, to update his outmoded analogy, is indeed much like a person one wishes to have an intimate relationship with: it requires courtship, but the moment one begins to take it for granted, it starts slipping away. Choosing a conclusion before observing the evidence is perhaps the most effective way to ensure that our reason will become corrupted and ineffective!

Hence, we see a dichotomy. The conclusion-first method of argumentation by which concepts such as flat-earth spread is the antithesis

of the incomplete, open framework of related concepts engendered by scientific exploration! In fact, it might be argued that assuming the conclusion of such an argument makes that argument *complete*! By this observation, we can conclude that complete logical structures are universally flawed. It is precisely by virtue of incompleteness that language can resemble the parts of the world a skilled user intends—if language was complete, it would lose this utility. By respecting the inability of language to fully express the state of things in the world, we can speak and write more precisely. We can comprehend the world more adequately. We can make better decisions, more quickly, by observing form before we turn to content with respect to *any* given argument!

The Text to Follow

The body of the text of *Formal Dialectics* is composed of a number of sections. Each section contains its own main idea, but beyond these superficial points and the information immediately available about what precedes each and what follows, there is an overarching thematic progression. The main sections of this book are three different parts: Part I deals primarily with the history and the fragmentation in the discipline of academic philosophy; Part II introduces the concept of dialectical thought in a technical way by exploring the practical dialectics; and Part III further refines the concept of dialectical study by enumerating the characteristics of the theoretical dialectics. Ultimately the text wraps up with the description of the metadialectical style in which the entire work has been written.

The most unfortunate consequence of the collective shift of human attention away from philosophy and toward science that took place during the twentieth century has shown itself in a variety of ways: science and religion openly squabble, and science does not possess the tools it needs to win the fight without philosophy and rhetoric. Meanwhile, technology moves forward with little impediment and no oversight, as the elected officials of the world essentially lack the ability to understand modern technical problems; and nuclear war appears more likely than ever before. By focusing upon science and allowing our drive to excel at the communicative tasks of speaking, writing, and reading to fall by the wayside, our modern societies seem to have placed the cart before the horse.

It would be an understatement of epic proportions to say that these calamities threaten to ruin civilized society at the global level—the globe itself is at stake! In addition, the philosophical discipline itself finds a fight

on its doorstep: there can be no unity among a diverse, free-thinking, canonless discipline! Structure can repair these issues; even a simple structure which has little or no impact upon the subject-matter taught in the introductory classes. The reason this additional structure is necessary is simple: philosophy is not a game. It is the shield which protects humanity from the worst threats we collectively face. It is a crystal ball, capable of providing us with the means of foresight, would we only choose to use it for the collective good. Instead of wrapping ourselves up in never-ending questions, philosophers should instead organize ourselves to identify and collectively face down the real issues of our day.

Every talented philosopher since Thales has faced this call, and those who answered to the benefit of the collective have always had to face opposition. Unfortunately, as the discipline splintered in the 20th century, the ability of the average philosopher to keep up with technical innovations across the various resultant scientific disciplines has declined severely. Worse, new philosophical schools including normative ethics and analytic philosophy have arisen as additional time sinks! In order to bring the academic philosophical discipline up to speed, it is necessary to slay ancient dragons. The best tool available is an incomplete system which recognizes its incompleteness: metadialectics.

Rather than simply solving puzzles, the metadialectical system allows us to understand more clearly what is puzzling about a given issue. The true purpose of the dialectic is to isolate the weaknesses of language and abstract thought in order that we might speak our way effectively, as it were, *through* them. This in turn allows us to build a new theoretical infrastructure for the maintenance and development of the open perspective even in the most difficult of circumstances. In a computer, the result of a computation is stored as a binary sequence written into memory. In philosophy new sequences of words arise to allow us to share and develop our results.

Specters such as the free will debate and the problem of moral relativism can be put to bed after an examination of their parts; these are left unresolved, perhaps, but they can be understood! If normative ethics is the main casualty of this effort, let it be said that the price paid by modern theory for a more precise and accurate method of speaking is minimal.

After all, it is the understanding of the limitations we face as we confront these matters that is the important part; it allows for an open investigation of the world we inhabit to continue. However, by explaining the difficulty preventing a sufficiently adequate answer to these puzzles, we may in fact approach them from new directions (i.e., studying cognitive neuroscience to re-formulate the question of free will, or simply

discarding normative ethics due to its lack of utility as a means to become a better person) without the waste caused by the attentional drain upon the masses of students, teachers, and researchers who study them.

To be frank: philosophy itself is a vehicle for obsession, and by examining dialectics as such we begin to understand its quarrels from a higher level, enabling people to work together upon pressing matters of the day—regardless of the state of solutions to certain popular ancient riddles. With this focus in mind, however, it must also be noted that solutions to these problems are easily produced by the new formal mechanism for understanding being developed in this work.

In fact, many of the philosophical problems of the ages are nothing more than distinct formulations of the primary philosophical question raised above: Why do the attempts we make to explain the world around us fall short? Make no mistake: this question has long been answered in different ways by different political groups and entities. Our attempts to explain the world around us fall short because we ourselves have ulterior motivations we do not care to address by constructing heuristics to keep ourselves honest.

Acknowledgments

This book covers a lot of territory. I need to thank my philosophically-inclined friends, my parents, as well as Dr. Sokal, Dr. Marquez, Dr. Kraft, and the countless other people who have supported and questioned it in their unique ways. Without the community of interest, there would be no book. Beyond that, however, *Formal Dialectics* is different from the vast majority of other philosophy books because it aims to introduce a new formal heuristic into philosophical canon—my friends and family have earned my gratitude by supporting this audacious project in many ways since its initial conception, five years before the writing was finished.

Writing *Formal Dialectics* has been a unique experience for me. Perhaps due to the humbling impact of having intensive analytical essays graded and critiqued in graduate school, there has been no embarrassment to prevent my sharing of the piece with friends, family, and complete strangers at any point in the writing of it.

The idea to categorize dialectical archetypes came to me after years of struggling with Adorno's masterpiece, *Negative Dialectics*, whose primary function is to interrogate the concept of metaphysics itself from a critical perspective. But it is difficult to state precisely, simply, and easily just *what* the book aims to accomplish. Richard Feynman argued that, if a concept was too difficult to explain to a third-grader, then we did not yet

understand it well enough. The insight that led to *Formal Dialectics* was a point of agreement between myself and Dr. Feynman: we need a simpler way to discuss the difficult concept of the breaking point of language.

How to Approach *Formal Dialectics* as a Reader: An Exercise in Self-Reference

Exercise: If we were to sum up this work in a single sentence, what would that sentence be?

First try: Kurt Gödel's insights, combined with Theodor Adorno's, can be reworked to produce a guideline which denotes the limitations of linguistically mediated reasoning.

Oops. That only worked because I cheated by using names as stand-ins for the in-depth explication of concepts! Non-philosophers have an intense dislike for this sort of argumentation, and it can indeed be quite frustrating for readers who are not familiar. My task in the work ahead is to explain the linkages between various different explorations throughout the history of philosophical thought in a way that makes a larger point—a proof, if you will, of the concept of metadialectical reasoning. While name references will certainly play a part, the work has been constructed so as to be comprehensible if the reader is motivated—even without a complete philosophical education.

Uninitiated readers may struggle a bit to read this text, but I do not doubt that academic philosophers will struggle more. Uninitiated readers are not, in general, subjected to a summarized tour of the history of philosophy. The canon, the main body of philosophical reasoning, is to blame for the shortcoming this book is intended to address: the less familiar with the canon the reader happens to be, the easier it will be to engage with the out-of-the-box concepts *Formal Dialectics* contains.

Being an inquiring spirit myself, I pushed my teachers to answer hard questions and sought out the answers on my own when I could not secure support for my explorations. I found myself unwilling to compromise my mission—understanding, at the deepest possible level, what I used to call the trap of language. This book represents my best attempt to define a heuristic to help thinkers avoid this trap.

Second try: To sum the book up, then, in plain terms: *Formal Dialectics* is a critical rethinking of the way philosophy is pursued as an academic discipline. Its goal is to push philosophers away from the exclusive focus upon analytics and back toward a more well-rounded canon. By this I do

not intend to disrespect the analytic tradition, as I certainly agree that it is an important tool to use. This book does its best to avoid the analytic style, instead favoring a dialectical style. The most important part of the work is its insistence upon the necessity of self-reference at all times.

Too many sentences, but the meaning is there.

Dialectical archetypes, which will be explained at length in comparison with one another, are patterns that occur in the things we have to say about the world we, human beings, inhabit. So, dialectical arguments tend to treat themselves as complete, though none of them can claim to be.

The sentence that solves the puzzle has to explain everything the book wants to say, but it also needs to keep it at arm's length because it can only be one sentence—it needs to be fairly vague and avoid contradicting the purpose of the book without losing its relevance or speaking only about part of the work to come.

Now I can do it! The third try is the charm, after all.

Third try: *Formal Dialectics* is a book that argues language cannot be as complex as the reality we use it to stand for; philosophers ought to recognize this fact because the simple understanding of the incompleteness of language can help with many contemporary issues in thinking by calling attention to the need for openness in our application and interpretation of formal systems.

It is not the simplest sentence, but even Feynman would absolve us of the need to explain a complex philosophical concept to our hypothetical third-grader in a *single* sentence. The Third Try sentence above is just the thesis of the book, delivered as it ought to be, toward the end of the introduction. Welcome to *Formal Dialectics*—enjoy!