

NULLSPACE

The Space Between Logic, Humor, and Nothing

:: Introduction ::

*"A serious and good philosophical work could be written consisting entirely of jokes."
Ludwig Wittgenstein*

This book covers a broad set of technical topics in philosophy following the narrative that the world has comedic telos. Despite this being largely a work on comedy, it isn't very funny. If people read things like the *Critique of Pure Reason* in an attempt to have their questions answered, then appositionally people should read *Nullspace* in an attempt to have their answers questioned.

The book was originally named *I'm Not Joking*, a counter to the above quote since this is neither a serious nor good work. The name I ended with instead comes from linear algebra – the null space of a matrix contains all the vectors that are mapped to zero (by that matrix); this allows you to trivially solve equations derived from that matrix.¹ I named the book after this because I believe that the reduction of frameworks into nothingness allows us to trivially solve all problems in philosophy.

Nullspace will be opaque to casual readers. Lots of terminology gets used in a technical sense throughout this book and with a Flesch reading-ease score of around 35, or a 16th-grade reading level, this book is considered very difficult to read.² Philosophy tracks other fields of academic study, all of which have become more technical in recent history, making work in philosophy more technically entrenched in turn.³ There's an expectation that readers are already familiar with most of the references made throughout this book, but if you're not used to academic philosophy, don't worry, it gets significantly more obfuscated from here. You'll notice an unsatisfying lack of details or counter-considerations in many sections of this book – I have always been a miner of ore, I have never managed to refine it.⁴ While I'd like to think that any clumsy wording in *Nullspace* is done on purpose to punish those who bother reading it, it's moreso that I'm just a bad writer.

I wrote most of this book a decade ago and have taken a long time to edit and publish it, but this very slow approach ended up being the best one since the only ideas left in this book are the ones that have remained after roughly a decade of thought and debate on them. Lots of other philosophers write great volumes of work, easily dwarfing this book's content in terms of quantity, but often their views will change drastically over their careers, whereas what is presented in *Nullspace* is the exact opposite – views that have withstood a small test of time – and so we may yet dwarf the others in terms of quality.

This introduction is an introduction to a philosophy book that covers many metas in philosophy, so I figure this introduction should be an introduction to philosophy itself.

Philosophy is the first, oldest, and largest discipline, leading to the founding of the first university by Plato and the formalization of logic and science by Aristotle, as well as spawning many

¹ Mathematicians use 'kernel' far more often than 'null space' but null is a more useful term for the topics of discussion in this book so I went with null space instead.

² The Flesch-Kincaid scale doesn't account for unusual vocabulary, so the reading difficulty is probably worse to be honest.

³ James Ladyman suggests this in his article *In Praise of Specialisation*, but even if it wasn't true, it's probably not very valuable to be delinguinated by the skill issues of others, so I write how I write.

⁴ A quote I steal from Nishida Kitarō's preface to *Intelligibility and the Philosophy of Nothingness*.

other fields of study with recent major additions being psychology, sociology, the philosophy of mind frameworks used in AI research, and so on.

Philosophy primarily concerns itself with the broadest and most general of questions. Philosophers do not study how rocks be or how living organisms be, as those are what geologists and biologists study, respectively. Instead the philosopher studies the nature of being itself, without specificity. Where all other disciplines are narrow in their scope and application, philosophy is broad and universally applicable.

It is easy to argue that philosophy is the most practical of all studies, since an application of philosophy is 'the good' and knowing what the good is means you will know what is good to do in any particular situation.⁵ Just the same, studying philosophy is the most important thing you can do, since asking the question of what importance is, deliberating its answer, and analyzing its accuracy, are all part of the philosophical practice such that we could not define importance or grant anything as being important without philosophy, making philosophy the mother of important things.

As an initial exercise, a kind of verbal bivouac, I want to demonstrate that many of the perennial issues in philosophy are not unanswerable or even difficult. There are affable frameworks that already exist that let us easily work these issues out. We'll start by defining truth. If you say, "Truth is subjective," you will not pass the class. Too many pseuds state, "*My* truth is different than *your* truth." Intended or not, this is dishonest and harmful. It is done for the sake of being contrarian and overlooks the implications of truth being subjective.⁶

The statement that truth is subjective asserts that it is true that truth is subjective. What directly follows is that it's subjective that truth is subjective, so it's subjective that truth *isn't* subjective, which means that it's true that truth isn't subjective.⁷ So we know truth isn't subjective, but we still don't have the definition. The not-too-narrow and not-too-broad definition of truth is, "what is," as in what is the case. A common objection to this is, "That is not what truth is." The self-defeating nature of this objection is in its use of the initial definition, "That is not **what** truth is."⁸ This is a 'recursive' or 'self-righting' definition and lets us know the prior statement, "*My* truth is different than *your* truth," cannot be true thanks to the definition we just actuated.⁹

"Meaningless word games!" you say, not realizing any definition you give would be playing the same game. But maybe I'm wrong. Maybe everything is subjective. We can only know things through sensory data that is indirect and inaccurate, and perception is all we experience, therefore all we can know, so it would seem that there is nothing truly objective we could ever know about the world. Ignoring the universal objective we create by saying perception is all we could ever know, all we have to do to salvage this is ask where our subjectivity comes from – how can subjectivity exist without some object by which to relay the subject? Imagining an opposite to something does not make the opposite exist, you don't typically prove existence by negation alone, rather I am saying that subjectivity could not come to exist without an objective basis for the subject to derive its relations.

More directly, your awareness is of objects, not of yourself having experiences of objects,¹⁰ which means the experience necessarily has more to do with objects than subjects. A way to prove this for perspectivists – how can perception be all that exists if there was nothing external to perceive in the first place?¹¹ Worse still for them, scientific explanations invoke things nobody will ever perceive. For example, nobody has ever seen a dinosaur, only dinosaur skeletons.¹² So perception cannot be the basis of truth. Truth must exist independent of the perceiver, else there would only be the perceiver with

⁵ This is a paraphrase of Socrates and many who have read the ancients will have seen this before, but it's a nice quick argument worth giving if you haven't heard it yet.

⁶ I equate these people to what the Russians call the obrazovanshchina, the class of society that has higher education but not higher morals.

⁷ This method is called transitive casing.

⁸ Mather, Lucas J.; lecture in the month of September, 2014.

⁹ I'm ducking any explanation of correspondence theory or any other theories of big-T truth here; I don't think those views or their problems apply to a world where truth is defined this simply.

¹⁰ This is a sentiment I have stolen from Husserl.

¹¹ David Banach gives a good account of the perspectivist fallacy here — <http://www.anselm.edu/homepage/dbanach/berk.htm>.

¹² Paraphrased from alanf's answer on <https://philosophy.stackexchange.com/questions/17959/why-is-the-brain-in-a-vat-scenario-meaningful>, and yes stack exchange has a philosophy section, as bad as it is.

nothing to perceive. This is evidence that most subjectivists are just solipsists in disguise since they ultimately deny there is an 'out there' or external kind of truth.¹³

But the objective world is out there, the way things really are, and so it follows then that the subjective world is the way things really *aren't*. Crucially here, *subjectivity is just the capacity to be wrong*. Saying truth, or art, or math, or whatever is subjective just means you could be wrong about it, not that those things are themselves without objectivity. Being subjects ourselves, beings with the capacity to be wrong about the world, is quite useful since it allows us to suppose things that are not the case – imagination and creativity hinge around this capacity and we would be worse off without it. However, while we have the capacity to be wrong, the capacity to be subjective, this does not mean we lack the capacity for objectivity, which is the capacity to know things in a *formal* and *absolute* way, the way things are 'out there' in the world.

This book is a discussion of the objective. Just as we did here with the definition of truth, I believe we can exhaust everything else in the universe and leave ourselves with a complete and totalizing description. With no lack of detail, no missing context, we can know the thing in itself and eat it too.

As a final introductory note, I claim this book does real work for our discipline. I repudiate the idea that everyone stands on the shoulders of giants. The saying that there is no longer such a thing as an original thought is fantastically small-brained and the amount of misplaced ego it takes to claim you know this – as if you personally have exhausted thought – is staggering. With insouciant regard for anodyne ideas we cut through the perennial Gordian knots of philosophy, the transcendental horizons, the Chomsky and Žižek memetics. We touch the sun and keep our wings. This book is long overdue and no one is prepared.

¹³ "So then, have I become your enemy by telling you the truth?" — Galatians 4:16

Metaphilosophy

Most contemporary philosophers believe philosophy will never come to an end.¹⁴ People outside of academic philosophy look on this as a reason to avoid it – that it will just go on forever asking ultimately meaningless questions like, "How many angels can dance on the head of a pin?"¹⁵ And worse, that it will arrive at even more meaningless answers like, "42."¹⁶

While I am personally inclined to believe philosophy is a project that will eventually come to an end, I also don't really care. It's far more interesting to point out that these mental midgets have solved their own problem and are complaining about a great accomplishment as if it were a grave defeat. Philosophy goes on forever? We'll never run out of ideas to explore and we'll have infinitely inexhaustible amusement? Let me light a candle for your loss.

This chapter is about the place of philosophy, what we do with it, how to do it right, and why I think it will eventually come to an end.

:: What Philosophy Is ::

"Too much or too little philosophy too early or too late in life makes monsters and mavericks out of men."

Robert Heinlein¹⁷



Philosophy is not about being open minded. It's far too easy to open your mind to something and it's much more difficult to correctly parse the information you open up to. This makes philosophy a practice of learning what to *close* your mind to instead. Almost everything everyone says, and all of what most people say, is nonsense baby-talk garbage that doesn't mean or track anything at all. You have to learn how to shut out all the noise in order to find the signal, and if you can't learn to do this then you forfeit your mind and die like a dog in the street.

Philosophy is not about asking questions. This would imply a sort of otiose uselessness and triviality to philosophy that unsubstantially debases all the participants of, and commentators on, the field – an *incuria sui* for those reading. The cliché definition of philosophy says that philosophy is about trying to find fundamental truths of reality or existence; this means the answers are more important than the questions. Many people object to this without realizing that if the answers weren't more important, there wouldn't be a need to ask the questions to begin with. People don't study Descartes' *Meditations* because he asked what he could ultimately know about reality – plenty of people have asked that – instead people study his *Meditations* because of how he answered. Failure to understand this will mean that you've failed to recognize this book itself answers a small few questions including but not limited to why you started reading it in the first place.

Philosophy is not the love of knowledge. Philosophy translates from Greek to 'the love of wisdom', and wisdom means applying knowledge in the right way, a form of *knowing better*. This is not a minor detail, it is the main distinction which sets the study of philosophy aside from all others. Listing

¹⁴ The short article *Will Philosophy Ever Come to an End?* by Eric Schwitzgebel lays out some standard views on this topic.

¹⁵ I believe it was one of Plato's *summoners* in which he asked why a mirror swaps things left and right but not up and down. The takeaway here is that these questions are not meant as an ends to knowledge, but a means for thinking about more important things.

¹⁶ I have no sympathy for people who believe the works of Douglas Adams are deeply philosophical.

¹⁷ I believe this was either from Heinlein or Nietzsche but I cannot find the quote anywhere on the internet so I may be misattributing it.

facts about the world is something anyone could do, but determining what the nature of facthood is, and who ought to do what with them, is the exclusive privilege of the philosopher.

Philosophy is not the practice of concerning yourself with delineating the set of facts for particular beings or to which conceptual categories those particular facts should be grouped. That's the boring task of taxonomists. But philosophy *is* about *this*, the thing we've been doing in the last few paragraphs, the meta. And while we are looking for fundamental truths about reality, it is more accurate to say we look for why they are true. In this we find the best definition of philosophy to be: the practice of discovering why there are fundamental truths to reality, if there are any at all, and what the nature of reality is such that anything else could be true past that.

From that definition it should be clear to you the reader,¹⁸ that repurposing definitions against themselves,¹⁹ or saying that people are just arguing semantics,²⁰ or other things like these, are wholly unphilosophical.²¹ Arguing against this would be a sort of anti-philosophy. Instead ask what the status of being is such that we can or can't say anything about its being; by what modes, mediums, or relations can it be, and what are the properties or states of affairs whereby any of those things can be granted or given? These are the kinds of questions which philosophy most meaningfully operates on.

As an irony, metaphilosophy would not fall under our definition of philosophy since metaphilosophy, the study of the study of philosophy, is a study of a specific nature of being, namely the nature of philosophy's being. Philosophy as the study of being without specificity makes metaphilosophy useful only in directing the philosopher on what is worth cathexis.

While I use this chapter to open questions about the placement or purpose of philosophy, the other chapters of this book work to close them. What is the absolute and totalizing first point in thought, or time, or being, or whatever, and whereby does anything derive itself past that point? Every other chapter in this book is about the end to this meta in philosophy. I will be writing on this *as if no one had written on these matters before*.²²

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:: The Methodological Direction Of Philosophy ::

"Philosophy would do well to desist from issuing any further injunctions about the need to re-establish the meaningfulness of existence, the purposefulness of life, or mend the shattered concord between man and nature. It should strive to be more than a sop to the pathetic twinge of human self-esteem."

Ray Brassier



lassically, many philosophical systems have had clear development through three primary fields – metaphysics, epistemology, and ethics, usually in that order. You try to figure out what exists and the basis for that existence (metaphysics), how you can know things or how anything can pass information to another thing (epistemology), and how any of this or anything else ought to be practically applied to the world (ethics). In this order most philosophers of the pre-modern world, meaning antiquity and the medieval eras, developed systematic frameworks for probing and explaining reality.²³

People like the existentialists of the modern era tried the reverse order for creating a rigorous systematic worldview, starting with what is supposed to be actionable in the world given your own particular position in it (ethics), what they could find to be actionable beyond that (epistemology), and then discovering what systems or laws governed the world they act in (metaphysics).²⁴ The former

¹⁸ And how strange that I just referred directly to you, someone who has yet to even read this.

¹⁹ After all, Descartes said, "One who aspires to wisdom above that of the common man disgraces himself by deriving doubt from common ways of speaking."

²⁰ You should hope that you're arguing semantics since semantics means meaning; a semantic-less argument would be a meaningless one.

²¹ Conversely, saying that a definition is flatly wrong, telling people that they don't know how meaning works, and arguing that we don't live in a society to begin with (a point David Graeber makes in *Debt*) are all funny and get primo reactions out of people.

²² Yes this is another Descartes quote, yes it's a really clever joke, no I won't marry your daughter.

²³ While antiquity gave us reasons to live, the medieval gave us benefits to dying.

²⁴ I know this is an awkward way to frame existentialism, I just wish to note there are different directions established for dissecting the world.

classical method is also sometimes called a 'top-down' approach with the latter method being a 'bottom-up' approach. There are pros and cons to both approaches, but most people reading this are already very familiar with all this so I'll move on.²⁵

Philosophers of post-modernity, specifically people like Nishida Kitarō, focused a lot on what I call 'middle-out' systems.²⁶ Nishida starts with epistemology, unifying subject-object distinctions between differing methods of logic and solving problems with its formalizations by Aristotle, Kant, & Hegel, and then derives ethics and metaphysics outwards from that central position. It was also Nishida that was the first to successfully formalize the unity between eastern and western modes of thought into an internally consistent, rigorous, systematic framework, far more robustly than Heidegger or Husserl achieved, and by the admission of his contemporaries was the first 'real' philosopher of Japan.²⁷ I find it important to note Nishida and his methods here because his work was very singular and it happened at roughly the same period of time that the scientific method became the most popular explanatory method for phenomena in the world,²⁸ which is itself a middle-out, or epistemology-first, view of the world.²⁹

All of these approaches that philosophers have come up with for explaining the world are interesting in their own right, and I personally believe Nishida's approach was the most revealing, but by having separate and distinct fields whereby metaphysics only at some distance informs epistemology and epistemology only at some distance frames ethics, or any other arrangement of those studies, all of them fail to be completionist frameworks – all of them fail to explain the unity and cohesion of reality.

I believe there has been discipline-wide semantic satiation. Thinking about hyper-focused over-specialized subjects for too long has dissolved any meaning they had, ruining our capacity to understand them in any kind of systemic or holistic way. While much of the history of philosophy has been spent on discovering the distinctions between categories of things in the world, I think it's far more valuable now to demonstrate what distinctions are *not* valid and to do the work of collapsing categories instead. Just as Maxwell collapsed the distinction between electricity and magnetism into electro-magnetism, or as Einstein collapsed distinctions between space and time into spacetime, we should continue this trend and collapse more of the world until there is nothing left.³⁰

The chapters of this book are divided into individuated fields within philosophy, but my aim is to give a singular unifying explanation for all things and, if you find that I have succeeded in discovering that explanation, then we will have some 'theory of everything' wherein when we give an explanation for something we indistinctively give the thing in itself. This isn't like Chomsky's sophistic ideas of the world existing as language (yes this is his real ontology, I know it's disappointing),³¹ nor is this to confuse a thing itself for the symbolic representation of the thing, rather we should find that **an explanation is predicated by its being and therein being is not totally distinct from its explanation.**³² This will give us a powerful tool for explaining the *why* of the world, concomitant to the *what* and the *how*.

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:: What It Means To Be A Philosopher ::

*"Think lightly of yourself and deeply of the world."
Miyamoto Musashi*

²⁵ Mieke Bosse said that tradition is the sum of successful innovations, and while the traditional methods created an explosion of insights about the world, they were not exhaustive, so I move past them for the discussions of this book.

²⁶ Yes, that was a *Silicon Valley* reference, and while I'm usually unapologetic about bad jokes, I am sorry for this one.

²⁷ Many sources consistently report Nishida as being Japan's first 'real' philosopher. While I believe Tanabe Hajime was the first to make the claim, the claim is so ubiquitous that there's no proper singular source for it; you can read almost any formal history of Japanese philosophy and will consistently find this claim being made.

²⁸ At least in the sense that lay people started switching their worldviews from teleological and mechanistic ones to a modern scientific one.

²⁹ I think there is irony here since the scientific method does not directly explain anything but verifies or falsifies explanations instead.

³⁰ By Hegelian dialectical method or any other, it needs to happen, but Hegel's, "creation through destruction," feels appropriate.

³¹ Wilfred Sellars and Richard Rorty also seem to believe this.

³² Language is not the only mode or medium by which we explain things, therefore explanations exist outside language and allow for an ontology different from Chomsky's.



Nietzsche said whatever doesn't kill you makes you stronger, however I've found it's often the case that what doesn't kill you significantly weakens you instead. Syphilis, for example. Of course Nietzsche was talking about mental strength, not physical, but I would argue the syphilis weakened him mentally too. And then it also killed him.

It is precisely what does kill that makes something stronger. The philosopher's whole world will die a dozen times a day before a real thought produces itself. It is in the death of many ideas that real thinking does its job. You must remove noise to find signal.

As philosophy is the love of wisdom, the love of applying knowledge in the right way, it's not enough to know – you must also do. Philosophy is work, it gets something accomplished in the world, so if you study philosophy but are not getting anything done with it, then you are not a philosopher.

Those who are really serious about pursuing philosophy will end up alienating many people in their lives.³³ Family is always the first casualty, friends follow shortly after that.³⁴ This is not only because philosophers are highly annoying,³⁵ but also because anyone obsessively involved in studying methods towards truth will find that no one in the world other than philosophers have any that actually work. All the religious peoples, all the scientists, all the sophists the world over will become unimpressive to you and worthy of comprehensive derision when you discover how all of their confidence is unearned and ultimately backed by a kind of pathological ignorance.³⁶

Long periods of isolation is the singular trait that every famous philosopher in history shares. This is universal among every great thinker,³⁷ probably because you need a lot of contiguous uninterrupted time to figure difficult things out. And unfortunately, this makes philosophy a discipline that requires an exorbitant amount of free time. There is however a sea change about to happen that might reduce the time required to become an adept philosopher.

If you look at fields of study augmented by computers, specifically by AI engines, you also find significant improvements in the human performances in those fields as the humans train against them. Take chess as an example – Magnus Carlson is better than any human player to ever live in almost every metric, and the top players below him also consistently outplay world champions from just one generation prior. The rules of the game haven't changed, but the tools available for learning and challenging yourself have improved by many orders of magnitude in an incredibly short period of time. Deep Blue, while not always winning, consistently outplayed Kasparov in 1996, and since then AI engines like Stockfish outplay 100% of humans 100% of the time. Instead of computer dominance destroying the chess world, it rejuvenated it, producing players far more tactically creative, and with better intuitions, than ever before.

This will happen with academic philosophy. You can feed any argument or book to a large language model and it will tell you in plain English exactly what is logically valid or invalid about it. LLMs can tell you which premises are likely to be true given general sentiment and what can be internally granted (or not granted) past that point. In fact, expert systems capable of sentential logic and truth tables have existed since the 1980's, but they never got much use. Given how fast AI is evolving (significantly faster than Moore's law does³⁸), it would be absurd to not use AI engines to train our thinking and argumentation skills the same way chess players do with chess engines. Our generation has no excuse to not greatly outperform every generation before us.

Now I'm no better than anybody else, but no one is better than me. As for an introductory exegesis on the only valid mode of the contemporary pursuit of philosophy and also for my personal impulse, the late W.V.D. Busby has said that there is no reason to do philosophy anymore, or think at all, unless you honestly believe you have the biggest dick of all human history and for all time to come. This is a very serious notion, "Unless you really believe you're better than Hegel, then shut up and stick to reading your betters." More sharply, unless you really believe you bring to the game something fundamentally devastating that no one else has ever considered or even had the capacity to consider, then you bring absolutely nothing.

³³ The insane man will believe something is real when it is in fact not, but the philosopher will believe something is not real when it in fact is. Both cause others to avoid you.

³⁴ And then usually other philosophers.

³⁵ Which we could counter with Diogenes', "Of what use is a philosopher who doesn't hurt anybody's feelings?"

³⁶ This is evinced in the metaepistemology chapter.

³⁷ Even people like Richard Feynman did most of their work with no one else around.

³⁸ Gwern Branwen gives a comprehensive overview explaining this here — <https://gwern.net/scaling-hypothesis>.

To fight this would be an admission of your ineptitude, and we're short on time. The field of philosophy is so absurdly over-saturated, contains so much noise, that any sign of a signal has been lost. So it's time everyone stop talking because there can only be one philosophical messiah, *and the title is mine*. I have the biggest dick. I am the signal. And claims at pretention aside, to dismiss me for saying this is to deny the necessity of thinking this way if anyone is to say anything at all on the topic of philosophy in the current climate.³⁹

Not only does the rest of this book meet these Icarusian claims, but it was easy for me to do. I have solved all perennial problems of philosophy, obviating entire fields of study yet to even be invented. I have touched the sun and kept my wings. If you think it is only in some thin sense of 'forever' that I will remain the champion, then this is a challenge to you – step up or forever relinquish your title.

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:: Eschatology ::

"Extreme boredom provides its own antidote."

François de La Rochefoucauld



In the opening remarks to this chapter I said I believed that philosophy is a project that will eventually end. I want to describe why I think this is true and why it will eventually become untrue.

Philosophy has most generally tried to answer the questions, "Why is there stuff? What kind of stuff is it? How do we learn about the stuff? What should we do with the stuff?" This is a pretty finite set of questions that almost self-evidently would have a finite set of answers. In fact, one might surmise that the whole of the world then is exhaustively explained in four sentences.⁴⁰

I truly believe this is the case. Those four questions have definitive answers and the answers are ineluctable. However, people also make games. Sometimes we make games that contain entire worlds which operate under fundamentally different laws than our own. A game is like a problem we invent just to see if we can solve it. So after we have gone to the ends of the universe with our minds, we can simply use those same minds to extend the universe in whatever ways we see fit.

It is clear to me philosophy has an end, and just the same it is clear to me that the end of philosophy is but the beginning of the real game.

³⁹ The pretzeling of thought many tie themselves in while trying to deny this is a taste of a greater salting yet to come.

⁴⁰ There is stuff because of comedy. It is the joke kind of stuff. We learn about stuff through humor. We should do funny things with the stuff.

Metametaphysics

This chapter gives arguments for the impossibility of any dualism, to drive a wedge between the idea that reality is explainable as some set of kinds, or things, or as lists of entities and properties. This is used as conditioning for why we need an ontology that is not predicated on object-hood or property lists. *Why* something is ends up being more important than *what* something is, and while positivists will say things like, "The 'why' question is just a silly question,"⁴¹ positivism can't validate its own methodology.⁴²

A view called formal absolutism is advanced, describing how reality can exist and give being to entities like physical objects and abstractions like math before those things themselves exist. Formal absolutism is intended to be a complete and consistent description of reality, but I argue that even a complete and consistent framework isn't enough to sufficiently describe reality, resulting in the conclusion that reality could not in principle exist. This contradiction is resolved by positing existence as a function of comedy and leads to the ontology section giving all extant things as instantiates of jokes. It sounds dumb, but keep reading and I promise it will make sense.

:: A Fast Proof for Relational Objects as a Distinct Ontological Category ::

An empiricist walks into a bar, substance abuse follows.



Dualism typically divides the world between the abstract and the concrete, or between form and matter, or essence and particular, or noumenal and phenomenal, or type and token, or mind and body, or subject and object, or schema and content, and so on. This section exploits a perennial issue with many different dualistic frameworks that have a binary divide upon where *concreta* and *abstracta* both operate by means of some *relata*. By incorporating some math analogies, I give argumentation that *relata* is a distinct ontological category necessitated by any dualism, muddying the traditional dualistic frameworks and forcing either a pluralistic or monistic case for reality.⁴³

The transitive property in math, which is that if $A = B$, and $B = C$, then A also equals C , demonstrates that multiple abstract objects can be equivalent or made the same as concomitants.⁴⁴ I question what the status of this object of equivalence itself is. If we take the identity property in math, which is semantically the same as tautology in logic, where simply $A = A$, and ask if either A or A are also equivalent to their equivalency, to the relation that coordinates their shared properties, which is to say equal to the equal sign itself, then we return strange answers.

Starting from the assumption that yes, A and A are not only qualitatively indistinct from each other but also from their relational capacities (necessitated by their equivalence), then it is the case that $A = = = A$. This can be verbalized as, " A is equal to the equivalency of being equal to A ." We can then raise the question of whether A or A is also equivalent to this new relation ($= = =$), and the initial assumption says that the answer would be yes again, resulting in the new statement that $A = = = = A$. This is infinite regress; we can always create a relational equivalency to the relational equivalencies between A and A if we start with the 'yes' assumption.

⁴¹ Famous sophist Richard Dawkins says this — <https://www.youtube.com/watch?v=p6tlee8FwX8&t=1938>

⁴² *Critique of Positivism* by Charles Peirce — https://peirce.siteshost.iu.edu/writings/v2/w2/w2_11/v2_11x.htm

⁴³ Math itself builds on the relational aspects between abstract and concrete entities, so it seemed fitting to use here.

⁴⁴ You can also represent this in formal logic as a continuous predicate, which is what I argue for later anyways.

As we also know from mathematics, as a value asymptotically approaches zero, that infinitely small value is equivalent to zero.⁴⁵ Another way to say this is that the number $0.\overline{00}1$ is equal to 0. I posit that by adding relational equivalencies between **A** and **A** we are increasing the literal conceptual distance between **A** and **A**, which means the normally close and strong conceptual relation is getting weakened. Since the distance between these objects is infinitely expanding, their normally direct relation is also infinitely expanded, thereby made indirect and infinitely weaker, and, analogous to the asymptotic example, we know that an infinitely weak relation is the same as having no relation at all. We find here that $A \neq A$.

From '**A** equals **A**' we derive that '**A** does not equal **A**' at the same time and in the same regard, breaking the law of non-contradiction in logic and the law of identity in math. So the initial assumption that **A** was not qualitatively distinct from its relational capacities was wrong. This demonstrates that *abstracta* and *concreta* are qualitatively distinct from *relata* such that *relata* is its own category of being since the relations between abstract or concrete objects are distinct in kind from the objects they relate.

In anticipation of an objection, the same problem does indeed occur whenever you have more than one concrete object, e.g. two tables – by what means do we relate these concrete objects as being the same kind of object?⁴⁶ In traditional dualism we say the ideal form, or the type of these tokens is what coordinates them, but of course abstract types are objects unto themselves and the *relating action* between the type and its token was just shown to be problematic.

So we have a third category of being called *relata*, or relational objects, but by turning dualism into a pluralism I think we just make the problem worse instead. The same argument used to tease out the existence of relational objects can be applied back onto itself. Formal proof itself is a relational organization between entities, making formal proof *relata*. Is one relational object equivalent to any other relational object? If we say yes, we get the same derivation as three paragraphs ago, so we find that we must say no. E.g., if a table holds some relation to the chairs seated around it, this is a different *kind* of relation than the table's relation to its maker, or its relation to the purpose of the room, etcetera, making all relations individuated as unique in kind.

Ultimately this should apply to all entities in the world, no matter how we formalize their categorical multiplicity of kinds. My intuition says pluralism explodes the same way dualism does, and infinitely so, until we have nothing but one single amoebas category of all individuated things, landing us at a monistic architecture for reality. But we don't have to play the game of saving intuitions.

* * *

:: The Nature Of Nature ::

You trust the chemicals to tell you they are chemicals?



I believe it follows that all *concreta* and *abstracta* are necessarily predicated as *logos*-specific *relata*; this I call *formal absolutism*. I'll do my best to convince you. For every abstract object and concrete object that are strictly paired, there is no distinction that would make either function differently than if they were unpaired, only that they would cease to function altogether, therefore there is no valid distinction between the abstract and concrete components of strict object pairings. Hopefully the conciseness of this phrasing makes it clear. It probably didn't. Let me try a different way.

For any good counter-argument against logic being fundamental to reality, tell me again what an argument is. Something that follows, obeys, and is beholden to logic? And in virtue of what would your argument map onto a reality fundamentally devoid of logic? In arguing against the fundamentality of logic to reality you must first assert the fundamentality of logic to your argument.

⁴⁵ Barring debate on infinitesimals.

⁴⁶ A quasi third-man argument.

This is apodictic and trappy since arguing against it defeats your capacity to argue in the first place. I call arguments of this form Gömböc arguments because they are self-righting.⁴⁷ For the formalization:

Premise 1: Arguments follow, obey, and are beholden to logic.

Premise 2: In arguing against the fundamentality of logic to reality, one must first assert the fundamentality of logic to their argument.

Conclusion: Any argument against the fundamentality of logic to reality must assume the fundamentality of logic, to be logically consistent, therefore you cannot argue against the fundamentality of logic.

The above can be symbolized as:

P1: $\forall \lambda (Ar(\lambda) \rightarrow (Fo(\lambda, L) \wedge O(\lambda, L) \wedge B(\lambda, L)))$

P2: $\forall \lambda (Ag(\lambda, Fu(L, R)) \rightarrow As(\lambda, Fu(L, \lambda)))$

C: $\forall \lambda (Ag(\lambda, Fu(L, R)) \rightarrow (Fu(L, \lambda) \wedge \neg Ar(Ag(\lambda, Fu(L, R))))$

Where "Ar(λ)" means " λ is an argument", "Fo(λ, L)" means " λ follows logic", "O(λ, L)" means " λ obeys logic", "B(λ, L)" means " λ is beholden to logic", "Ag($\lambda, Fu(L, R)$)" means " λ is against the fundamentality of logic to reality", "As($\lambda, Fu(L, \lambda)$)" means " λ asserts the fundamentality of logic to itself", "Fu(L, λ)" means "Logic is fundamentally present in λ ", and " $\neg Ar(Ag(\lambda, Fu(L, R)))$ " means " λ against the fundamentality of logic to reality is not arguable".

Another way to say this is that if reality itself wasn't a formal system then it wouldn't be meaningful to say that formal proof of anything corresponded to reality. This means we know that either reality itself has to be a formal system capable of the correspondence or reality is simply not proof-oriented so there is no formal proof of anything ever, *not even of that*, which self-defeats. This is an indirect proof that reality has to be a formal system.

An objection I've received with relation to premise 2 is that this requires live people to make statements and therefore this only applies to people's statements and not to reality itself. But any entity holding any kind of relation with any other entity does so in a consistent form (or otherwise ceases to exist), formalizing the relation between those entities, which is an arrangement between entities we call a premise. Should any action or further relations directly follow from those initial premises, it would take the form of what we call a conclusion. So it is not just people that make statements and draw conclusions, but reality itself that does this. We can demonstrate this with another indirect proof – if formal logic was not fundamental to reality, then any entity holding any kind of relation to any other entity does *not* do so in a consistent form, which means nothing would follow by necessity, not even that, which self-defeats. We inch towards a framework here in which reality is pure formal logic, in an absolute and totalizing sense.

A separate objection I've received multiple times is the outright denial of the validity of formal logic itself and the assertion that formal logic is broken in some systematic way. But then the objection is not an argument because it does not follow, obey, or is beholden to, formal logic. In this case, the original argument's conclusion that you cannot argue against the fundamentality of logic would still hold because the objection would not meet the criteria for an argument as defined in the original premises.

I should also say that the arguments I am making here, while self-referential, are not circular. This is because they are recursive arguments – we evade closed circularity by being unbounded in scope – so you can self-reference without creating a locally bound loop.⁴⁸ The analogy for this would be something like an infinitely large circle in which no finite set of points you pick from it will themselves be sufficient for recreating the circle; just the same, no finite arguments derived from infinitely open premises will be sufficiently circular.

In anticipation of another counter – what happens if we say or think something that isn't logical? If logic is fundamental, how is it that we can have inconsistent or illogical ideas in our heads? How do we square this circle? Is it the case that something isn't the case, or a non-existent thing exists as the non-existent thing, or that it is true that something is false? There are many impossible things that we speak on regularly but we only ever speak about them as indirect syntheses of two possible things, like

⁴⁷ A Gömböc is a special kind of shape that only has one stable point of equilibrium, making it so that it rolls itself into the same orientation no matter what other orientation it started with. Since the argument I employed is meta-referential, I believe this is a special class of recursive arguments which I have not seen before and I therefore feel justified in coming up with a new name for it. Gömböc seemed fitting.

⁴⁸ My hand was forced.

married bachelors. It seems that logical contradictions, things that cannot exist in any possible space, are literal gaps in our minds where we try to cognize them. I characterize this gap more rigorously in the next section.

If some system or set of ideas is externally invalid by way of logic, meaning it allows contradictions, then that system or set of ideas will also have some internal problem that by its own rules allows some inconsistency which results in the total collapse of the system.⁴⁹ This is proof that formal logic is not just a mere arbiter of some other consistent thing but that any framework which correctly adjudicates consistency will arrive at and be fully equivalent to the framework of formal logic we already have.⁵⁰ So whatever is posited against formal absolutism will probably have to self-correct until it looks dangerously similar to formal absolutism again.

Given the above, when you make an assertion in formal logic, the assertion isn't just a reference to a purely abstract proposition that exists solely in your mind, but rather you are asserting something as being the case 'out there' in the world. And since all existent things, concrete or abstract, are the case, they require the logical predication of casing. If you say anything is the case, that anything exists, has some cause, observes some property, or whatever, all you have done is given predicate values of an entity. Logical predication is involved at all steps of the process.

I say this because if there is no valid distinction between abstracta and concreta (which is what I claimed earlier), and the only things that exist are things that are the case, then there is also no real distinction between objects and their logical instantiations. Hypostatic abstraction allows us to formally convert any predicate into a relation ($P(o) \rightarrow R(p,o)$), giving us what we observe after the fact as object properties and relations, which means object properties and relations are fundamentally just logical predicates. Another way of saying this is that if there is no valid distinction between objects and their logical predications, between object-hood and its casing, then logical predications are what objects are, and they are the only kind of object. Therefore, **the world is entirely logical predication**. This collapses the distinction between relata and all other categories of objects into one single amoebas *logos*-specific category, landing us at a monistic architecture for reality.⁵¹

This is not quite like logical positivism, as I don't argue that everything is *reducible* to formal logic but rather that everything is *predicated* by it.⁵² What I have been calling formal absolutism is logical realism, monism, and atomism all rolled together, where operations in formal logic are the absolute units of being. While the content I am arguing for here is similar to ideas from Wittgenstein's *Tractatus Logico-Philosophicus*, it's important to note I am demonstrating the character of logic to be fundamentally different. For example, Wittgenstein explicitly states in 4.441 that "There are no 'logical objects'," whereas I am saying they are the only objects, if there are objects at all. I think associations with Husserl's or Nishida's logical realism are more appropriate, if an association needs to be made.⁵³

By way of the arguments above, formal logic is fundamental to reality and is the only thing that can recursively assert itself as being fundamental in this capacity, meaning reality is pure *logos*.⁵⁴ So the ontology of logic supersedes everything else, including space, time, math, or whatever. Theoretical physics has started shifting towards this idea as well, with things like John Wheeler's *'it from bit'*⁵⁵ and quantized inertial theories requiring information to act on itself by the rules of formal logic with no spatial or temporal components involved. Theoretical physicist Mike McCulloch has written that, "the waves of Unruh radiation cause inertia as follows: the waves have to fit exactly between the rightwards-accelerating object and the Rindler horizon that forms on the left. This is similar in form to the Casimir effect, **but I use logic instead**: a non-fitting partial wave would allow us to infer what lies beyond the horizon, **so it wouldn't be a horizon anymore**. This logic disallows Unruh waves that don't fit on the left:

⁴⁹ A famous example being the student who challenged Bertrand Russell's statement that permitting a false proposition to be true allows you to prove anything else, "given that $1 = 0$, prove that you are the Pope." Russell added 1 to each side so $2 = 1$, then stated that the set containing him and the Pope has 2 members but $2 = 1$, so it had only 1 member and therefore he was the Pope. This is called the principle of explosion but I like characterizing instances of these arguments as implosions instead because they collapse in on themselves.

⁵⁰ This is reason enough to believe Aristotle made the most important discovery in history.

⁵¹ Looks like I played the game of saving intuitions anyways.

⁵² "It helps no one to be reductive." – XRA

⁵³ Ultimately I am a student of Aristotle, but he never fully equated logic to ontology *tout court*.

⁵⁴ Aquinas would have called this God.

⁵⁵ I believe this also allows us to go from pure logic to its quantization in information theory, and then from information theory to quanta in quantum mechanics, creating a bridge from base reality all the way up to our macro-scale world — <https://www.themarginalian.org/2016/09/02/it-from-bit-wheeler/>

they disappear."⁵⁶ This is evidence for the idea that information in QM exists fundamentally as logical instantiations since logical operations are being done to information by information itself in his theory. Even if he's wrong, or my interpretation is wrong, this is just one example of many like it in contemporary theoretical physics; the evidence is becoming mountainous.⁵⁷

We just discovered the true nature of reality together. While formal absolutism can explain the base nature of reality, it has not yet shown the relationship between appearances and reality, or a solution to the problem of universals.⁵⁸ For answers to those you will need to go to the metaepistemology chapter. If you disagree with anything I've said or want to understand more of what formal logic and its workings entail, skip to the metalogic chapter. If finding out reality is just logical actuation feels underwhelming, you can skip to the metaaesthetics chapter instead.

* * *

:: Metacompletion And A More Modal Modalism ::

The dumbest of all possible worlds.



Of existence being formal logic at base would make reality consistent, but would it be complete? One way people divide up reality is by saying consistency entails all *actual* things and completion entails all *possible* things, but even if we accept this division as being real or proper or whatever, does this division capture everything? There is plenty of literature on actual versus possible worlds, but not as much on *impossible* worlds.⁵⁹ I believe we would need to add logically and nomologically impossible worlds to account for a complete description of reality, the reasoning being that we know impossible things must exist, else nothing would be impossible. Another way to say the same: *some* thing must be impossible or *no* thing is impossible ($\exists I \oplus \neg \forall I$). And if nothing is impossible, then everything is possible instead, including nothing, which is inconsistent. So some things must be impossible, concluding that impossible things exist.⁶⁰

Without the existence of some impossible space,⁶¹ there would be no place in which statements were invalid – we could not say anything was logically impossible. At that point we propound paradoxes; those paradoxical entities must occupy their own separate space, an impossible space. Think of a table, likely one you are sat in front of right now. That table exists in that place, not some other place it doesn't exist at. So at every other place in the universe – an infinite amount of places – there is not that table. At every other place in the universe there is the negation of the table. Think of this like an infinite shadow cast by the positive component of the table's truth value. At every other space in the universe it is impossible for the table to presently be there, since it is presently at its singular position. Therefore, the negation of the table exists in impossible space. But I will come back to impossibles later.

Modalism distinguishes between possible worlds and actual worlds, often softening that distinction⁶² to argue that all possible worlds are actual worlds in some physicalist or idealist space.⁶³ No matter what the ontological status of modality ends up being, I think there is an interesting

⁵⁶ <https://physicsfromtheedge.blogspot.com/2014/01/mihsc-101.html>

⁵⁷ Tangentially, where something is relative to something else in the same observational frame – you can only tell if you can see something else at the same time and in the same regard. I believe this is parallel to the law of non-contradiction because placement in an argument is equivalent to your placement in space and time.

⁵⁸ My hand-wavy answer to the problem of universals is simply that any entities that share the same form or identity are the same entity and as such when two people think of the same thing, their minds quite literally visited the same place and touched the same relata, so there are never multiples of the same thing.

⁵⁹ Of the millions of papers catalogued on Philpapers.org, and of the 4,000+ papers in the modal metaphysics category, only 170 are tagged (as of the time of writing this) in the 'impossible worlds' sub-category, meaning impossible worlds occupy a tiny fraction of the attention placed on modal discussions – <https://philpapers.org/browse/impossible-worlds>.

⁶⁰ To clarify, impossible doesn't mean 'not exist', it just means 'not possible', and possible doesn't mean 'does exist', it just means 'not a logical contradiction', so while impossible things are not-not a logical contradiction, there is no contradiction in terms with impossible things *existing*.

⁶¹ Space is being used in the mathematical sense here.

⁶² As David Lewis' modal realism and Leibniz' theory of possible worlds does.

⁶³ It's hard for me to see David Lewis' version of modal realism as meaningfully distinct from Platonic dualism. I'm partially convinced it fooled people into thinking it was something new just because it used a different name.

consequence of looking at meta-modals. Are possible worlds themselves actual or possible? If we say they are actual, then they aren't merely possible, and if they're not actual, then the possibility doesn't exist. It seems we get a contradiction of terms. So are there actual possibilities? What about possible actualities? To attain meta-modals we can divide the traditional 'actuals' versus 'possibles' into *actual actuals* versus *possible actuals* and the new meta-modal distinctions into *actual possibles* versus *possible possibles*, shown below.

	Actual (old)	Possible (new)
Actual	Actual Actuals	Actual Possibles
Possible	Possible Actuals	Possible Possibles

Just as an acorn is a possible tree and not an actual tree, there are possible states themselves that are possible and not actual. An acorn is possibly an actual tree – as the world is currently configured, an acorn could really become an acorn tree. This is an actual possibility. But an acorn does not have the possibility to become a dog. It does have the possibility of entering into a world configured such that acorns do become dogs – a possible possible. What it would take for that to happen would probably look something like significant genetic augmentation and a lot of environmental change to suggest the acorn become something other than an acorn tree, at which point we may not even consider it valid to still call it an acorn, but nonetheless it is possible that the world could augment itself to allow this possibility. So not an actual possibility, but a possible possibility.

Similarly, it is not an actual possibility that you can jump to the Moon from Earth, but it is possibly possible given the world augmentation of millions of years passing where the Moon's orbit degrades and it falls towards Earth until eventually it is so close to Earth that you could jump up a few feet and touch it.⁶⁴ A few moments after that would probably be a cataclysmic impact, but the point is that this would still make it possible to jump to the Moon.⁶⁵ A possible possible.

Defining the categories; actual actuals are things as they presently are, actuated and given as fact – our current state of affairs. Possible actuals are what we traditionally call possible things – things that could be the case but are not yet and may never be. Actual possibles are things that are presently possible – things possible given our current state of affairs. Possible possibles are things that could be possible in the future but are not presently possible. With the acorn and moon examples it should be clear that possible possibles either never happen or they degenerate into actual possibles, actual possibles are possible actuals, and actual actuals are what both of those eventually degenerate into.

Crucially, despite my use of temporal terms, actuals and possibles can be fully represented in modal logic without the invocation of time; this offers a description of the world in which we can have 'change' without traditional views of time. How long is the present? If we say the present has duration then there is a before and an after, meaning a past and a future, which defeats the purpose of calling it the present. If the present has no duration then it also doesn't exist through time, so there is no present time.⁶⁶ Just as possible things can be made actual in modal logic (and vice versa), I claim this is what a state's change in the world really is, i.e., movement from A to B is just the modal state difference of actually at A and possibly at B to possibly at A and actually at B. Moreover, it makes this change precisely and only because the modal logic necessitated it. So it is the state-differences of logic that comprise the things we call localities of space and the passage of time,⁶⁷ further that the logical necessitation of state-

⁶⁴ You wouldn't really be able to jump because as the Moon got closer to the Earth it would start pulling tides in at such force that the space between the Earth and the Moon would be fully occupied by water. So really you could swim to the Moon, not jump to it, but I spared this explanation from the main text since I think you'll get the point without it.

⁶⁵ As a complete tangent, I find it interesting to ask what it is that binds us from jumping to the moon normally. Why should gravity be so weak that you can easily overcome the force of the entire planet by simply standing up, yet so strong that your locomotive ceiling is the same height as your head? No one has ever jumped over 6 feet from standing position. In this sense, the scaling of gravitational force is neither intuitive nor relative, since no one of any body size relative to Earth can jump higher than 6 feet, allowing one to mistakenly convince themselves that gravity is a non-relativistic force.

⁶⁶ This is essentially the sentiment Aristotle gives time in the beginning of the *Physics*. The present, even in a time-positive framework, usually does not have extension into time, so there really is no time like the present. We can leapfrog arguments like those from John McTaggart.

⁶⁷ For any objection to my claim that time is not a fundamental component to reality and so all change in the world must be instantaneous, I make a distinction between *instantaneous* change and *infinitely fast* changes. If every change that has ever happened and will ever happen did so instantaneously, then there is only one instance of change because they were all instantaneous. The reason this would be a problem is that there would only be one, albeit long, logical premise accounting for the whole of reality which would itself never change – a contradiction since a single premise is not an argument necessitating state changes. But if every change that has ever happened and will ever happen merely did so

change is what people often call causation. Here we have accounted for space, time, and causation as concomitants to logic in one single package.⁶⁸

Simple, easy, elegant, the Formal Absolute model Q is the next generation of metaphysical framework, and for a limited time only, buying a model Q comes with a free set of objections.⁶⁹ I could write a lot more about these big, mostly unjustified claims, but the claims are self-evident to me so I'm just going to move on instead.⁷⁰

Using meta-modals, I think there are legitimate grounds to attack whether modal realism itself is actual, possible, or some other thing. The modal realists have not determined whether they are also meta-modal realists, and so they haven't determined if their possible worlds are possible actuals, actual possibles, or possible possibles, only that they aren't actual actuals. But if a possible world is a real, existent, actual world, as modal realists argue, then that seems like an actual actual world. If possible worlds are actual worlds, then at the most benign it defeats the purpose to call them possible and at the most malignant it completely eliminates the distinction between possible and actual.⁷¹

Tangentially, this seems to share a lot with fictional realism – the idea that fictional worlds are real given their seating inside the actual world. For example, Harry Potter is male and attended Hogwarts. You would be wrong to say otherwise, but Harry Potter is also not a 'real' person and so none of the facts about him are facts about a 'real' person, yet they are still facts. The fictional realists believe that you can be objectively right or wrong about descriptions of fictional things since fictional things are actual objects in our world. The ontological status of fictional things is such that we are really saying that Harry Potter attended Hogwarts, but only given what was written in a book series by J. K. Rowling.

So it is a fiction to categorize specific works as a canon and to then derive statements that follow from those works as being factual given the canonical descriptions. This is the only way I see fictional realism and modal realism (they are the same thing to me) as being ontologically salvageable since it reduces all fictional/possible things to actual things instead, not totally unlike the meta-ontological consequences of Landian hyperstition. I shoot myself in the foot here, since the modal realists reduce possible worlds to actual ones as well, but I do it more flatly – I reduce fiction to a series of nested conditionals in formal logic: if this other world existed, and if it had such and such characters, and if they did so and so activities, then we could conclude some set of statements about Voldemort being evil or whatever.

To clarify, actual/possible spaces are where we track valid things and the impossible spaces I'll discuss shortly are where we track invalid things, but both spaces are real in the sense that they exist on top of each other, and in fact it is only when they come together that we have any means of distinguishing them, for if they occupied two separate worlds we would have to explain how it was possible to go from one to the other, but of course then that would be a possible space bridging into the impossible space, collapsing the divide between them. I apologize for that being a single sentence.

It can always get worse. Looking back at the previous table, are the categories themselves actual or possible? A way out of infinite regress comes from the path of degeneration I had described the meta-modals following earlier.⁷² Either something eventually degenerates into an actual actual or it stays in one of the possibles forever, so we can collapse the four meta-modal distinctions into the two traditional modals. But if something stays in one of the possibles forever, meaning it is guaranteed to be forever not-actual, this is usually what we call an *impossible* thing. It's unintuitive since I'm saying that the things that are possible in perpetuity are actually impossible, but we intuitively know this is valid since we often say something is not a 'real possibility', distinguishing between a difference in kinds of possibles such that some are never actually possible. So the negation of the modal actual-possible is what a modal impossible is ($\neg(\Box\Diamond)$).

infinitely fast, then there are infinitely many instances of separate and distinct changes. If we are to believe space is infinite, then it would take infinite time to actuate change across that infinite space – you would need an infinitely fast change mechanism to accomplish this. This provides an explanation for infinitely many instances of change in the world without a difference in cardinality of infinities between space and time.

⁶⁸ As a weak example, a single point of light evinces a one-to-many existence as many bits of extra information come concomitant to it – spatial info, temporal info, energy info, and others are all wrapped together in the initial point of light.

⁶⁹ But the trunk has infinite space, the engine runs on infinite time, and it will never break down on you. It's a good deal as far as metaphysical purchases go.

⁷⁰ Hate the player, not the game.

⁷¹ People dumb enough to be convinced by David Lewis become bewildered when presented with this.

⁷² Incidentally, belief in modal realism is itself a path to degeneracy.

If modalities are collapsed to something like fictional realism, collapsing all distinctions in subjunctive possibility with them,⁷³ not to be confused with things like the reductions done in hyperrealism, then what we call a possible world is a logic-object we instantiate purely for use in modal discussions (a kind of fictional canon), to which we can make objective, factual claims about, but to which have no ontological status outside pure logic. This saves the distinction between 'possible' and 'actual' to keep them alive in modal logic.⁷⁴ But saved or not, this still doesn't explain impossible worlds, and that presents a much bigger problem.

	Actual	Possible	Impossible
Actual	Actual Actual World	Actual Possible World	Actual Impossible World
Possible	Possible Actual World	Possible Possible World	Possible Impossible World
Impossible	Impossible Actual World	Impossible Possible World	Impossible Impossible World

I have placed consistent worlds in green and inconsistent worlds in red. The four consistent world types we've already examined – the AAW, PAW, APW, and PPW – were all in the prior table so we know they're the same in this table as well. It is fair to collapse them into one single world (the actual world) in my view given that possibles are just a fictional canon in modal logic.

The AIW, PIW, IAW, and IPW are all inconsistent both in name and description, and therefore not the kinds of worlds that anyone could exist in, at least not consistently. For example, an impossible actual world would be one in which it was never actual and actual at the same time, a contradiction.

When we look at impossible-impossible worlds we find something very strange. For an impossibility to be impossible, it truly is.⁷⁵ The terms are consistent in IIWs, and with consistency comes validity. They are valid worlds but by definition have invalid things existing in them. This is a contradiction, but there is only this one contradiction and it only inhabits one layer of impossibility; we already knew there was a contradiction at that layer because we labeled it impossible *ab initio*. There is yet another impossible layer wrapped around that first impossible layer, and since double negations eliminate each other, the two contradictions from the two layers cancel each other out and we're left with a non-contradictory IIW.⁷⁶ This also lets us collapse all the inconsistent worlds into an IIW since an AIW, PIW, IAW, or IPW are each themselves only a single-layer contradiction. So impossible-impossible worlds are consistent worlds, and we can collapse the IIWs into the actual world since the actual world contains all the consistent worlds. This unifies all the worlds into one contiguous space.

A valid world is a consistent world, meaning one that could be inhabited. I want you to seriously consider that we could be inhabiting the kind of impossible world described above.⁷⁷ Being able to think contradictions like the liar's paradox, married bachelors, infinity, or any other impossible thing – these are distortions of the real, meaning the world itself is distorted in just such a manner as to allow the distortions to be thought. More directly, how could we identify something as impossible if there was no impossible space for the impossible thing to be identified in? Reality is a self-torturer.⁷⁸ Impossible spaces would give us a full account of all contradictions, and where we see a contradiction – a null logical value – we have the null space of its modal matrix.⁷⁹ This is highly convenient since just as the null space of a matrix in math allows us to arbitrarily solve the mathematical system, so too does the null space in logic, as indirect proofs (proofs by contradiction) allow us to arbitrarily solve the logical system.

It is hard for me to articulate all this in a concise way but I want to be absolutely clear that by splitting the world into possible and impossible spaces, we would be creating a dualism like the kind I argued against in the opening section of this chapter, so this distinction is a purely fictional one, the spaces themselves are ultimately indistinct and all part of the 'actual'.

⁷³ Which obviates problems with any nomological and temporal possibilities that would have been otherwise unaccounted for.

⁷⁴ Of course, they use 'contingent' and 'necessary' in modal logic, but the terms are arbitrary so long as the same operations are performed by them.

⁷⁵ This sentence short-circuits logicians.

⁷⁶ Unintuitively, it is only the intuitionists that don't believe double negatives eliminate each other.

⁷⁷ Our thoughts visit impossible worlds frequently; this may instead be evidence that the system is over-determined or not well-defined.

⁷⁸ Imagine a serial killer whose only victim is himself. Rape, torture, all the hallmarks of a twisted kidnapping, but all done to himself and himself alone. Do we have any reason at all to believe this isn't how reality works?

⁷⁹ Bringing new meaning to 'kernel of truth'.

For a quantitative analysis of metacompletionism, or whatever we decide to call this thing we've been looking at, it should be found that for any proposed entity \mathcal{O} , its list of possible relations is infinite, as are its list of impossible relations, but also that the lists are strictly paired 1:1 for every state, so by law of non-contradiction the relation of possible states and impossibles states for \mathcal{O} cancels each other out. What we call the real world is then any states derived from the lists that are strictly paired in which the law of non-contradiction does *not* invalidate; a set of strictly paired states which we would instead call actuals and impossible-impossibles – a pairing that would exist 1:1 with $\forall \mathcal{O}$ themselves. This means that not only is the actual world a strictly lower ordinal than the im/possible world and that any conception of an unboundedly infinite universe must be false, but also that the modal relation of a paired state is what an 'object' is (since all other properties or descriptions follow from the paired modal relation alone). This is in line with the prior section stating that objects are just logical instantiates. The modal state changes of $\Diamond \mathcal{O} \Vdash \Box \mathcal{O}$ and $\Box \mathcal{O} \Vdash \Diamond \mathcal{O}$ are then trans-finite operations that account for the list of all actual states against the strictly larger lists of im/possible states that \mathcal{O} traverses.⁸⁰

If we want a complete description of reality we must include impossibility. At least now we know exactly which kind of impossibility it is – an impossible impossibility – as impossible as that is. This inclusion makes reality both consistent and complete.

* * *

:: Nothing Exists ::

*"There is only one way to avoid criticism: say nothing, do nothing, and be nothing."
Aristotle*



This is a criticism of nothing. Generally people ask if some particular thing exists, but some philosophers ask about existence itself. I ask the dumbest possible question: *what predicates existence?* We have two options – something or nothing. If something predicates existence, then that something has to exist before existence itself does. Ruh roh. If nothing predicates existence, then we don't have any prerequisites for existence, so nothing exists.

To muddy this further, defining 'nothing' as, "the lack of something," or to give any definition to it at all, is to give it a somethingness, so nothing would be something that exists.⁸¹ What's more is that something, *some* thing, is not any *particular* thing, and not-a-thing is nothing. So we also find that something is nothing that exists. Hopefully this was an adequate demonstration that these are simply not meaningful terms and that we should move on to ones that are, but if you weren't convinced and thought I was just being sophistic, then you can bother to continue reading and be mad about it instead.

The table below is a basic breakdown of the way philosophers typically try to argue for the existence of the universe. Either we have something or we have nothing. The top row has received the most attention by far, but a quick walk through the other categories makes it apparent that some of the fundamentally more important views have received significantly less attention. With these we turn the question of something versus nothing on its head.

	Something	Nothing
Something	Something from Something	Something from Nothing
Nothing	Nothing from Something	Nothing from Nothing

Something from something (SFS) gets you infinite regress. If our universe is a SFS, then it always existed, there was never a time it didn't, since before our something there was something else, and before that something else there was yet another something, and something again, forever. There is no start to a

⁸⁰ In the terms following from this kind of description, since all of these states, actual, possible, and impossible, are all true states of an object, this would make truth strictly larger than the prior kinds of entities; I believe this means truth must be an unboundedly infinite.

⁸¹ The ancient Greek philosopher Gorgias was the pre-eminent thinker on these kinds of arguments, I recommend looking him up if you want to read more into this.

SFS universe. An infinite amount of time must have passed before now in order for that to be true, and an infinite amount of time must have passed before five minutes ago, and before five trillion years ago. Infinite means infinite after all, and since an infinite amount of time is required before now, it also hasn't finished coming to pass yet, which means this present moment in time hasn't come to pass yet, nor any of the moments in time for any finite measure before us, and so billions of years ago hasn't happened yet, meaning we don't exist yet to have this conversation. Paradox, the universe implodes. For this reason we can't have a SFS universe.

Something from nothing (SFN) is what Aristotle's first-mover aligns with. This is also the intuitive view most people have by default – that the universe was created – either by some physicalist means like the Big Bang or some religious means like God. But nothing comes from nothing. Nothings don't spawn somethings. Paradox again. This is a serious problem that needs a lot of rigorous and technically-driven hand-waving to circumvent, nonetheless most philosophers have settled on SFN because to them it is clear the universe is a something and they don't want the paradox of infinite regress like we get with SFS. However, since SFN is impossible, it is just as plausible that we exist as a nothing instead.⁸² I don't believe we end up sacrificing very much to make this happen, as nothing about the world stops getting explained if the world didn't exist in the first place.⁸³

Nothing from something (NFS) works in the way SFN doesn't. SFN entails that you can magically bring into existence something from no source whatsoever, but NFS means that if you have a something then that something can result in nothing. 'Nothing' is a positive ontological phenomenon in this view. In fact it's happening all around us for most 'somethings' most of the time. Take for example that your atoms are mostly empty space – your body is at least 99% nothingness – we could confidently say you are made more of nothing than something. Swiss cheese has holes, places that are distinctly not Swiss cheese, places of cheese nothingness. Moreover, a something can simply *do nothing* for a great period of time. Getting something to do something instead of nothing takes quite a bit of work, like some causal force or energy (whatever that is). So if we start with a nothing then we can't have a something, but if we start with a something we can have a nothing. Distinctly, if we have something, we also have nothing. So while there's no guarantee of a somethingness, there is always a guarantee of a nothingness.

This brings us to nothing from nothing (NFN), which has the same tautological consistency of SFS but without the infinite regress of infinite time requirements. How was the universe created? It wasn't. How do we exist? We don't. They are unintuitive and unsatisfying answers, but there is no overt inconsistency in a NFN world like we had with SFS or SFN.⁸⁴ The seemingly paradoxical question we must attenuate is that if we don't exist, if we aren't something, then how are we here to talk about it?⁸⁵ Following NFN reasoning, we do exist, but we exist as nothing, a functioning nothing. Little nothing functions. If the universe doesn't exist, if the universe isn't something, then what space are we occupying to talk about it? Well the universe does exist, it just does so as a functioning nothing. Big nothing function.⁸⁶ We occupy null space.

A quantitative description we have not looked at yet: an 'everything' would be equivalent to the 3x3 modal worlds table from the last section, since an everything category would contain everything in it, and therefore correspond to a complete world containing all actuals, possibles, and impossibles. Shuffling somethings into actuals/possibles and nothings into impossibles, the something versus nothing categories are encapsulated entirely by the everything category. Since there is a one-to-one correspondence between something versus nothing and actual/possible versus impossible, and a one-to-one correspondence between everything and completeness, it would seem that this quantitative

⁸² The joke here is that I am saying nothingness is also impossible, yet since something and nothing are both impossible, they are also equally possible.

⁸³ For additional supporting evidence, I recommend Markus Gabriel's book, *Why The World Does Not Exist*.

⁸⁴ It might also be worth noting that there are a growing handful of philosophers that side with the NFN worldview, people like Kitarō Nishida, Martin Heidegger, etc.

⁸⁵ I've found that this question only matters to people that insist on anthropic explanations.

⁸⁶ The famous Kierkegaard quote comes to mind for me here, "I stick my finger in existence — it smells of nothing. Where am I? Who am I? How came I here? What is this thing called the world? What does this world mean? Who is it that has lured me into the world? Why was I not consulted, why not made acquainted with its manners and customs instead of throwing me into the ranks, as if I had been bought by a kidnapper, a dealer in souls? How did I obtain an interest in this big enterprise they call reality? Why should I have an interest in it? Is it not a voluntary concern? And if I am to be compelled to take part in it, where is the director? I should like to make a remark to him. Is there no director?"

categorization of the world is equivalent to the qualitative one from the prior section, collapsing the distinction between the two modes of description. But since we can just as easily describe the existence of an entity as a function of something the same as we can describe it as a function of nothing, if we want to really flip the something versus nothing distinction on its head, then we do so here by simply articulating that the terms are not distinct, corresponding to the non-distinction between actual and impossible from the last section, meaning everything is impossible.⁸⁷ Danger close, gunny.

The take-away from this should be that the question of existence is not answered by assigning the property of 'something' or 'nothing' to it; these concepts simply don't do meaningful work for us.

* * *

:: Ontology Is A Joke ::

"Metaphysics is the finding of bad reason for what one believes by instinct; but to find these reasons is no less an instinct."

F. H. Bradley



We just went from proving reality is pure logic, consistent and complete, to proving it's impossible and nothing exists. I'd like to propose that our torturer has a sense of humor. If you add a positive number to another positive number, you get yet another positive number, and if you breed one dog with another dog, you get yet another dog, but when you combine one possible concept with another possible concept, you often get an impossible concept, like sideways green. Something about reality broke. Why wasn't there a distinct category for this kind of possible-possible conceptual inconsistency in the meta-modal table? It appears that even a consistent and complete framework isn't sufficient for explaining reality.⁸⁸

Here are some definitions: humor is when we draw attention to inconsistency, some failure of logic or some incongruence in the world, actual or perceived, and a sense of humor is when you are able to recognize this incongruence. We see people exploit this all the time; expected failure of logic in a system results in perceived future inconsistency and is the platform by which we make jokes, with a joke being the explicated or reified instantiation of the incongruence in that system.⁸⁹ E.g., incongruence with how rational agents live their lives, like Žižekian pathology, or the inversions of definitions and principles that the Greek cynics were so good at evincing – *Behold, a man!* A failure in the core of metaphysics such that we can never explain impossibility or nothingness except by allowing them the same ontological status as possibles and somethingness would also count. Anything that exists seems to do so in some incongruent possible-impossible space, as a nothing-something. Cosmic humor. Ironically, people have tried arguing against my view by making fun of it.⁹⁰

In the first section of this chapter I argued against all forms of dualism, but it seems that one dualism asserts itself in all frameworks for metaphysics no matter what – there are things that exist and things that don't. I submit that this is the only real dualism in metaphysics since it is the only one concerned with the real and its dual – reality and its negation. All other dualisms are invented, but this one is discovered. All other dualisms assert their distinguished categories exist, but when it comes to the question of existence itself, those dualisms fall silent. So I wish to obliterate this dualism too, and annihilate the rest of metaphysics with it.

It doesn't matter what definitions you start with, they all break in the same way. Here are some arbitrary definitions I typically use for 'exist' and 'real': existence (or 'being') is the category of real entities, something is real if it is the case⁹¹, and the case is whatever is adjudicated by formal logic,

⁸⁷ Or that nothing is possible, or nothing is everything, or any other arrangement of those categories. It doesn't matter since the terms have become so arbitrary.

⁸⁸ Late to the game but already in uniform.

⁸⁹ A more exact definition for a joke would be, "the contrast of extreme opposites." But this isn't relevant until later chapters.

⁹⁰ I may be a clown but they're the ones with pie on their face.

⁹¹ This is a dual definition (in the mathematical sense) to the one assigned to 'truth' in the introduction to this book, making 'real' and 'true' the same thing.

whose realness itself is justified in the metalogic chapter. Given these definitions, existence is the logic-objects that make up what the case is. This means there is no extra-logical stuff, no things that are real outside of reality, since reality includes all things that are the case.⁹² With the definitions set up in this way we can say it is the case that reality exists.

This may sound circular or tautological, but the inclusion of impossible spaces and nothingness allows the definitions to be recursive instead. All other standard frameworks of metaphysics don't permit impossible things, meaning they could not permit their own impossibility, which makes them unfalsifiable in their own view (which is circular). So we must permit impossible things, including my definition for existence as non-circular. All other standard frameworks of metaphysics don't permit nothingness and say there is a somethingness instead, making them unable to describe a world without their somethingness since a description is something and not nothing – a tautological view that begs the question. So we must permit nothingness, and nothingness by definition excludes everything else, even its tautologies.⁹³ If you don't believe me then we can look at ontological tautologies and see if they maintain themselves. E.g., the good itself must be good, for all goodness comes from it and it is tautologically good to have the good. Similarly, interest itself is interesting, and reality itself is real. But does itself-ness itself, itself?⁹⁴ Here a verb is being described, not a noun; we are not merely saying a thing in itself is the thing, but that a thing in itself does itself *be* the thing. So either we permit the tautology and all entities make themselves exist recursively, or we reject the tautology that itselfness itself itselfs and we are left with nothing as the predicate of being (i.e., nothing can be itself).

The common saying is that if you have to explain a joke then it isn't very funny, but nothing says reality can't be constructed entirely of unfunny jokes. Maybe we should explain it after all. Ontology being a joke means simply that existence is a function of some joke. I believe there is a kind of self-explanatory nature to this, but everyone I've explained it to disagrees with the explanation on the premise that it isn't funny. I rest my case.

This paragraph is dedicated to explaining the joke about explaining the joke. If the nature of existence itself is a joke, that would mean describing the nature of existence would itself be a joke. *You chose to read this.* Ontology is the study of being and so the study of this study, of the modes of being itself, is self-referential, as being itself is what the ontological does. This is to say being itself must be self-relational, and so out of its own volition, it is. Given that ontological things exist and the base item of the category of existent things now exists recursively, that it self-actualizes, we can say that same self-actualization would validate the existence of any reified instantiate of itself. Here a form of the joke was invoked to prove that the joke exists, making existence as a joke its own joke about existence. This is justification for the base item of ontology being a joke. Look at you, still continuing to read this garbage.

The more convoluted this all sounds, and the more you want to fight its legitimacy on that grounds, the more likely it is to be true. This is the point – at every junction in any description of reality where we would find some short circuit of logic, we locate in the same place a joke. I contend that this convolution and short circuiting occurs no matter what framework of metaphysics you believe in. This makes jokes fundamental to the nature of our descriptions of reality (or existence, or being, or whatever term you want to use), and since all descriptions are predicated by formal logic, our capacity to explain reality is then determined by the workings of logic, the specific dual-instantiations of which I am calling jokes. For example, I said a few paragraphs ago that with the way our definitions were set up, we could say it was the case that reality exists. But with the same terms and definitions we could prove that reality doesn't exist instead. This is where the real dualism asserts itself again and subsequently implodes.

Either it's the case that reality exists (it is real that something exists) or it's the case that reality doesn't exist (it is real that nothing exists). I have argued for both cases being true, that nothing is a real thing that exists, and also that things exist, which is not nothing. A real dualism, and a real contradiction. The ancient Greek philosopher Gorgias said, "the nonexistent does not exist; for if the nonexistent exists, it will both exist and not exist at the same time, for insofar as it is understood as nonexistent, it will not exist, but insofar as it is nonexistent it will, on the other hand, exist. It would, however, be entirely absurd for something to exist and at the same time not to exist. The nonexistent, therefore,

⁹² I suppose another way to say the same thing would be that reality is all instantiations of cases. The set of all sets.

⁹³ My abuse of language deserves accolades.

⁹⁴ What a sentence.

does not exist."⁹⁵ I take this here as a proof that the nonexistent doesn't exist, so there is nothing that doesn't exist, i.e., *everything exists*. So nothing is something that exists. And if nothing exists, then we can describe the nature of existence as an aspect of nonexistence. Just like that, it is the case that reality doesn't exist.

What I am attempting to articulate here is not some artifact of speech or some sophistic language game, but that it is reality/existence/being itself that is the problem. If we permit the dualism of existence and its negation, then we have an entirely absurd ontology in which ontology itself can be negated. But in the same fashion that it is malformed to ask how much time passed before time existed, it would be malformed to ask if things exist at all in an ontology that has not pre-supposed its own existence. So if we simply don't beg the question and don't pre-suppose existence itself, then we don't have this problem, **but also no longer have ontology.**⁹⁶

There is a kind of comedy at play – you 'exist', you are a 'real' thing, so we say you exist in reality, but this 'existence' is at the cost of an infinite list of negated relations to other things, an infinite list of things that must not be the case in order for you to be the case. I.e., your finite being stands in opposition to an infinite set of cases in which you do not exist, like that you do not exist as the king of France, you do not exist as the first person to step foot on Mars, *ad infinitum*; therefore there is infinitely less justification for your existence than for your non-existence, a value typically considered zero, and yet you still believe you exist. Your existence is a joke.⁹⁷ But, crucially, your existence is a joke about the nature of existence itself: everything that exists does so as a joke, and since 'everything' is something that exists, *omnia est iocum*.

The words 'exist', 'real', 'being', whatever, are always related in such convoluted and ultimately circular and unjustifiable ways that the entire study of ontology is reducible to this absurd character and nothing can escape it. And nothing does escape it. Nothingness allows us to posit things as true or false with no further requisite, as nothingness is the null space of the logical structure to ontology. More accurately, nothingness is the negation of something's positive existence – all the universe that is not the table before you is distinctly the negation of the table in all other places, like a photo negative of reality. *Omni deterrantio est negation*. So I conclude that the invocation of terms like existence/reality/being are always and only meaningfully done in relation to the truth values of terms in formal logic. Whenever you hear someone say something is real, or that it exists, they merely mean that it is true inside some premise. The world as mere proposition – that's where you exist, or don't. Want to hear a joke with no punch line?

:: World Without A Cause, Anti-Etiology ::

The assumption that free will has mechanisms implies that it is the effect in a causal chain. If you don't assume it is mechanistic then the search for a cause of free will disappears.



causation is given as a force to which we say there is some before that makes some after, that for any particular entity there is a cause that precedes it and necessitates its closest continuer as its effect, **like antecedents and consequents in logic**, such that all effects have causes and all causes have effects. Every cause was at first an effect of some prior cause (modulo a first cause) and every effect is itself some cause in the world, but since every effect is also a cause and every cause an effect, there appears

⁹⁵ Jowett, Benjamin. Gorgias: line 67. Champaign, Ill.: Project Gutenberg, 2008.

⁹⁶ At least not an ontology that is substantive and tractable.

⁹⁷ As more evidence, Thomas Nagel's work *The Absurd* relates our sense of time back onto itself saying, "It is often remarked that nothing we do now will matter in a million years. But if that is true, then by the same token, nothing that will be the case in a million years matters now. In particular, it does not matter now that in a million years nothing we do now will matter." Nothing mattering wouldn't matter, so it would never be relevant to bring up that nothing matters. In Nagel's view, the recognition of our existence as being contingent means we cannot justify our commitments past the contingency without being circular, which is absurd.

to be no meaningful distinction that determines which one a state of affairs in the world would be – it is always both.⁹⁸ And of course it is; think about what it would mean to have causes and effects be independent of each other. An effect without a cause is what we call magic – that you can create something from nothing or that you can cause something via a medium unrelated to the effect (like the evocation of a flame without any chemical interactions).⁹⁹ Conversely, a cause without an effect is what we call impotence – that forces which normally do create effects would spontaneously fail to do so (like adding catalyzed reagents together but getting no chemical interactions). Neither of the cases of unpaired causal components is possible, so cause and effect must not be separate and distinct entities.¹⁰⁰

Frameworks for causation are tired and confused. I argue that we can fully explain the world without any standard framework for causation whatsoever and that we lose no ability to accurately explain anything if this is true. This should also throw a wrench in all the long and boring debates on determinism, free will, and other topics in that constellation.¹⁰¹

A lot of this rides on the fact that modern physics does not return us evidence that the universe is deterministic.¹⁰² Contemporary physics describes reality as probabilistic at base,¹⁰³ with quantum mechanics explicating strong indeterminate qualities innate within material events – not just as statistical outliers because we don't have accurate ways to measure or something like that, but that some events are strictly beyond determination. E.g., *when* a particle decay happens can be truly random.¹⁰⁴ There is no cause for when a pion decays to a muon, it is an event that is fundamentally indeterminate. Some people even build devices that measure this true randomness to work as RNGs,¹⁰⁵ which means, despite what even many physicists believe, it's trivial for quantum indeterminacy to bubble up to macro-scale events, annihilating classical determination at the level of tables. So even if we had a macro-scale hard-deterministic universe, it would be arbitrary for us to utilize micro-scale indeterminacy to create non-determined macro-scale events, making the universe no longer hard-deterministic.¹⁰⁶

But there is good evidence outside of physics too. The problem of induction is illustrative – causation itself is never directly observed, just the effects of causation, making it so there is no observable cause for cause.¹⁰⁷ You may also note that in a no-cause framework we don't really observe effects either; this should immediately eliminate any ideas you have towards a positive view of causation, let alone determinism, or fatalism, or whatever.

A more explicit argument for a non-distinction between cause and effect could go something like this: if we had a slice of paused time where we saw a ball two feet above the ground, it would not be immediately obvious if the ball was falling towards the ground or bouncing up from it, only that it is two feet above the ground. This is because, without time, there is in fact no distinction between the two

⁹⁸ Yes, we're obliterating this dualism too. It's a blow-out sale and everything must go.

⁹⁹ Ironically, a first cause would be an uncaused cause, meaning, despite its name, it is an effect with no cause – both religious creation and big bang theory are magic by this definition.

¹⁰⁰ This also implies antecedents and consequents in logic are technically indistinct too, since an argument is always given as a whole, with the antecedent and consequent together as one logical actuation. We know this is true because it is only meaningful to call them antecedents and consequents if there is a single through-line of actuation, what we call premises necessitating a conclusion. Actuation is here an indivisible property of argument-hood which allows us to describe actuation as retroactively imbuing arguments with antecedents and consequents.

¹⁰¹ As an initial impulse for believing this, free will always has an absurd character in every formulation I have seen. Hume, for example, was funny about this, saying 'will' was what you are free to define it as. Suggesting another definition would mean that you were free to choose another definition, meaning the definition is what you were free to define it as, proving Hume right.

¹⁰² The physicalist likes to ignore physics when it comes to this topic. Belief in determinism is mostly left-over from classical mechanics a hundred and fifty years ago.

¹⁰³ 'Probabilistic' is sometimes a debated term by physicists here since probability implies a strict ontological order in which a number of outcomes all exist concurrently; for this discussion I just mean probable as things 'sometimes' happening given a causal order, which is similar to the 'impotent' form of causation defined two paragraphs ago.

¹⁰⁴ Another example: a physical cause necessitates some set of possible effects to which no particular effect in that set is necessitated. I.e., which particle, out of two possible ones, radiates away during a specific decay process can be a pure probability. We could say there is a cause for particles to radiate away in a decay process, but which kind of particle is chosen to be the one that radiates away is not caused. Some decay processes could result in an alpha particle radiation or neutron radiation with toy ratios of 70:30, and you can cause an atom to perform this radiation, but there is no determining factor for whether the alpha particle will radiate or the neutron particle will radiate instead. The 'determination' of which particle radiates is simply not causal, it is truly random.

¹⁰⁵ AlphaPhoenix does this here – <https://youtu.be/gwIGnATzBTg>.

¹⁰⁶ The reverse works as well – that if quantum mechanics was deterministic instead of probabilistic, we would have a universe that was fully locally deterministic but in which it could be made remotely non-deterministic by way of entanglement's non-local causation.

¹⁰⁷ I would also point to Nelson Goodman's "new riddle of induction" from his book *Fact, Fiction, and Forecast* to lend more points in favor of the lack of proper causal establishment in certain etiological discussions.

states, it is just a floating ball. Without time there is no change (meaning no causation), and if material causation was the only kind of causation acting on the ball then the lack of possible determination on our part would mean there was no effectual mode for causal description in the world without pre-imposing a causal chain, begging the question.

You could try to appeal to other kinds of causation to solve this problem, like the classical kinds of causation identified by Aristotle (material, formal, efficient, and final) since some of these allow you to infer cause and effect immaterially, but there is still a circular pre-supposition of actions or reactions through time. Inference of course means the use of logic, not sense perception, and while this may suggest that what we call causation in a still frame of time could somehow be accounted for by logic alone, inference-based causation still gives us change, which means a temporal order to event-hood (the presupposition of time). At least here we have change without physicalist frameworks for time, which is neat. So while this allows us to account for change without material causation, it still requires time to be unfrozen – that there be a *history* to the object in question by which we infer its Aristotelian causes. This does not explain how we attain an effectual mode for causal description in the world without the circular pre-supposition of un-paused time.

In response to this, I claim that time is always paused, as was discussed in the *Metacompletion And A More Modal Modalism* section (mostly in the footnotes). The 'history' of an object is already encoded in the paused slice of time we started with whereby the instantiated logic-object is carrying all the relevant relations to other possibly instantiated logic-objects for use in the actuation, which is what we are ultimately calling causation. Information theory in physics asserts something similar – that information is never created or destroyed and so the entire history of an object is always present in the holographic projections of the information, also tangentially involved in the black-body radiation of black holes. Another way of saying the same is that what we typically think of as the 'past' is the set of relations between some logic objects in which we can infer what the formally necessitated states of those relations made them as in the given arrangement. N.b., this is always given as a single instance of 'time', so no un-pausing is needed for us to infer 'prior' relations between the logical instantiates. This is an account of causation without traditional views of time – logical actuation alone is what we end up meaning by the 'progression of time'.

However, the modern era stopped believing in any kind of immaterial causal framework. Descartes famously axed three of Aristotle's four causes and left us only with the efficient cause, what we ironically now call material causation instead. But it is interesting that contemporary physics still distinguishes the same number of fundamental forces in the world that Aristotle did, and further that these four fundamental forces in physics neatly correspond to the descriptions Aristotle gave for his four causes – the weak nuclear force letting quarks change their flavor (what something is made out of, its material cause), the strong nuclear force binding particles into atoms (what its structure is, its formal cause), the electromagnetic force attracting and repelling particles (where it's motion comes from, its efficient cause), and gravity¹⁰⁸ which pulls all matter together into galaxies (what its direction or aim is, its final cause).¹⁰⁹

Aristotle gives his causes as concomitants in which all four act on an object concurrently,¹¹⁰ which is not unlike the four fundamental forces in physics acting concurrently on matter.¹¹¹ Further, the ultimate goal of contemporary physics is in unifying the four categories into one primordial force (in GUT for quantum mechanics or ToE for M-theory), formally exhausting the standard model. This is vaguely similar to Aristotle's idea that knowledge was contingent on causation and that we wouldn't have a complete understanding of something without the unification of its causes in the description of the thing.¹¹² So modernity proved Aristotle was wrong about everything until post-modernity proved that he was right about everything again, I guess. Cosmic irony. Metaphysics typically looks at the qualities of

¹⁰⁸ They will of course tell you that gravity is not really a fundamental force at all but rather an observed effect of the compression of space in the direction of mass, however this still accounts for change such that the movement of space causes and attains effects in the world, so there is a force accounted for by gravity nonetheless.

¹⁰⁹ It is interesting too that Aristotle's five posited elements correspond to the five states of matter we now know of — earth is solid, water is liquid, air is gas, fire is plasma, and aether can be loosely assigned to Bose-Einstein condensate.

¹¹⁰ *Physics*. II 3, 195 a 6–8.

¹¹¹ Well, the ~5% of matter they believe exists at least. The other ~95% does not interact with any of those forces except gravity and so we call it dark matter. I think you will still get my point though.

¹¹² *Physics*. II 3, 194 b 17–20. I also note this because I will claim later that knowledge itself causes things.

entities, and physics at the quantities, but I believe the 1:1 mapping of metaphysics and physics onto each other here implies that we can cleanly bridge this divide.

While many philosophers have moved away from Aristotle's views on causation, the implication I am trying to make is that his sentiment towards inference is what we need here anyways. Physics is fully accounted for at the fundamental level by formal logic since, as was shown three paragraphs ago, what we point to as causation can be actuated ontologically by logic alone. From this I hope that people find causation to be a making of things in the world as relations between entities, as pure logical predication, and so formal absolutism fully encapsulates the thing we call causation. In fact, formal absolutism is so powerful, it not only solves problems but creates them too. If the world is pure logic, we might assume it is perfectly deterministic as well – conclusions follow from premises by way of necessity and so do valid consequents follow antecedents just as we would traditionally think effects follow causes. This implies a predetermined universe, contrary to what we have said about the indeterminate nature of physics.

A possible fix is via an augmentation of traditional logic. A non-bivalent logic (one in which truth values are not just 'true' or 'false') allows for a spectrum of truth value such that the exact same ratios of occurrence for particle decay are given by the ratio of truth value for the premise of particle decay itself. What this means is that the truth of the ratio of some particle decay is given by the truth spectra of its logical instantiate. Here truth is a ratio or frequency of a premise or argument. This lets us account for causal frameworks in which things *sometimes* happen, solving the problem of probability for an event determined by formal logic. While this would aid the collapsing of cause and effect into logical absolutism, it would still take a lot of work to prove that formal logic is not bivalent, so for now I will try to show a different way out of pure logic's hard determinism instead.

That which is 'determined' is an action or event that occurs specifically because of some preceding action or event, making it contingent on the prior. This is contrary to the belief that an action is always done at the expense of another, that the thing could happen or not happen, that another state of affairs was really possible – determinists say that all supposed options are imagined and only one thing was ever really going to happen; they don't believe alternative states of affairs really exist. Anybody familiar with the debates around determinism will probably find further discussion on these old and infinitely rehashed talking points boring, so I will move on to newer, hotter takes.

This first one is an absurdist argument: that if we are all predetermined to do what we do and had no real choice in the matter (if free will does not exist), then it is indeed the case that we are not responsible for what we do. Some then believe that criminals are not responsible for their actions and should therefore not be punished, but of course the people that lock away the criminals are also not responsible for their actions and are therefore not worthy of being relieved from their jobs of locking up criminals. The unoriginal insight here is that no behavior changes given the information that everything is predetermined. Since the universe does not look any different when we switch it back and forth between a deterministic one and a non-deterministic one here, **it is therefore absurd to believe in a distinction between the two**. If you think the world does look different when you switch it between the two, you would have to describe the mechanism that adjudicates this difference, which would itself be subject to the mechanism, defeating the capacity for it to adjudicate the difference since the alternative world would be fully paired to its antipode. A Venn diagram that fully overlaps is just a circle. Consequently, both determinism and free will become inconsequential to our descriptions of reality.

Additionally, people seem to be incredibly confused by what they really mean by both free will and determinism. They will say it doesn't matter whether determinism is true because *indeterminism* is just as incompatible with free will. The standard argument goes that if our decisions aren't determined then they aren't caused by anything, which means that they occur randomly. And if our decisions occur randomly, then they 'just happen to us', so they're not the product of our free will. I am supposed to like this argument because it agrees with my point that it makes no difference if our universe is deterministic or not, however it happens to be wrong.¹¹³

¹¹³ Strangely, in a world with a non-distinction between cause and effect, there is also a non-distinction between will and freedom. Note how closely the terms parallel each other; to will something is to cause a determination, and to be free is to be the effect of an undetermined state. Put this way, cause, determination, and will are all the same kind of thing, as are effect, indetermination, and freedom. Since cause and will are the same thing, effect and freedom are the same thing, and cause and effect are indistinct, so too are will and freedom indistinct.

Indeterminate does not mean random, it means not determinate, and determinate doesn't mean not-random. **Random things are determined**, they're just randomly determined. There are also things that are deterministically random (like CSPRNGs). So counter to our intuitions, an indeterminate thing is something that is neither determined nor random. What this means for particle decay and other quantum processes is interesting – we cannot predict when a pion will decay to a muon and there is no determinate for the decay itself, meaning it is not a part of any causal chain, but this does not mean it occurs randomly. We know it will happen given infinite time, and can determine that the pion will decay to a muon and not something else, so there is in fact a large degree of non-randomness here. Should not knowing when the decay will occur really be a problem? An effect without a cause is magic, as described earlier, but we knew the effect was going to happen in virtue of the thing's indeterminate nature. So indeterminacy itself is the 'cause'. The effect happens in the way it does precisely because it is indeterminate. The pion disappears, as does the magic.

Our physically indeterminate world is neither determinate nor random. What does this mean for everything else? What does this mean for free will? We can and do still point to freedom and will in the world, and in both cases I believe that what we are pointing to is the temporal suspension of effect, adjudicated by *logos, tout court*, which is exactly the same thing we see with the temporal suspension of particle decay. We can point to that adjudication and say yes, there is our free will.¹¹⁴ I don't mean this in some inane sense; contingency exists, it is a component of formal logic and many such contingencies manifest as observer-dependent phenomena. This means a great many things in the world are suspended in epistemic contingency and actuated only when the logic is thought or some discursive agent piecemeals (and thereby reifies) the argument form.¹¹⁵ This actuation is also an observed effect in the world, caused directly by an agent.¹¹⁶ We could further debate whether the agent is freely discursive or meaningfully constrained in such a way that the discursive activity itself is forced, but again I don't see a real distinction between the two because if we define 'you' as the thing that causes your actions, then 'you' gets shifted to the thing that caused your conscious determination of the actions, providing a fallback we still identify as your will in an otherwise purely predetermined world.

So I'll give another absurdist argument. A universe working under completely determinate laws commits us to the idea that all that has ever been, and will ever be, was set in motion from the moment of the big bang. If reality is completely determinate then at some point we would have predictive models that aren't just probabilistically accurate, but completely predicatively accurate. Because of this, it would be arbitrary to make such a determinate universe indeterminate from within it. This is a modified version of Laplace's Demon; rather than past predictions proving determinism true, future predictions prove it false.

With powerful predictive models ran on computers, we could not just emulate but live-render large chunks of our universe in perfect accuracy and use it to look into the future as a kind of foreknowledge device.¹¹⁷ From there all we have to do is say, "Look at this grouping of particles we call a college student. We know with absolute certainty, because of the deterministic powers of nature and our models, that they will become a philosophy major." Once the prediction is made, once some predetermined instance is measured, all you would have to do is show it to the person affected, who could then choose to not to do the thing that was predetermined.¹¹⁸ It seems trivial, show the student that they are predetermined to become a philosophy major and then have them not become a philosophy major.¹¹⁹ It seems that having knowledge of things predetermined to happen allows us to undetermine them. We will find either that the device I am describing is simply an epistemic impossibility, making epistemology a knowably incomplete discipline (which self-defeats), or 'predetermined' acts are just structurally weak in the face of foreknowledge about them.

¹¹⁴ If you disagree, then enjoy not having the freedom to think about it. Take that as you willed.

¹¹⁵ As a tangent, this seems to imply the number of contingencies on any entity is infinite since an item can be thrown in an infinite number of directions, but the number of necessities is finite since where it is actually thrown only necessitates one direction.

¹¹⁶ Of course by 'effect' and 'caused' I am referring to the technical abductions of the terms we performed several paragraphs ago.

¹¹⁷ Granted, we wouldn't be able to render things faster than they happen in the external world, but we could construct a scenario where someone's action was contingent on the output of the render from the device, despite what occurred sooner in the real world. This would keep the device relevant for predetermining behaviors in the world and would maintain the epistemic contingency therein.

¹¹⁸ This information does not itself need to come from outside the render since the foreknowledge device could be a part of the rendered area. You may notice this leads to weird causal or logical loops – I explain this more in the next couple of paragraphs.

¹¹⁹ Making them read this book might have the same effect.

When measuring before and after the knowledge of the determined outcome is given, the foreknowledge device should show the *same* outcome, otherwise the outcome was not really predetermined. So the student would be cosmically forced to follow through with the predicted outcome regardless of their knowledge of it. If this foreknowledge device predicts that using the device influences decisions, and thus you are still following what the device shows you are predetermined to do, it does not seem obvious that you could not still simply deny what you've been predetermined to do since there is no physical counter-causal force stopping you that we can point to.¹²⁰

And in the opposite scenario – if the readings from the device before and after the knowledge of the determined outcome is given show *different* outcomes, then knowledge of predetermined events can change their determination, making them epistemically contingent and not determined in advance. So the problem with foreknowledge devices is that you're lead through infinite regress as you try to determine what it is you're destined to do and at which juncture you were forced to be aware that you were forced to be aware to do it. This is not totally dissimilar to the halting problem in computer science and the very existence of things like the halting problem give us clear evidence that there are events in the world that are provably indeterminate. N.b., the halting problem is a physical indeterminacy that is logically predicated, meaning in halting problem examples it is logic alone that makes the physical world indeterminate, which I count as evidence in favor of formal absolutism.

So our universe is indeterminate at base, but despite this being the standard position in physics for a hundred years now, there is no lay understanding of the metaphysics of probability, no 'statistical ontology' to explain how this works.¹²¹ The technical explanations that exist are always purely quantitative instead of qualitative; they give us no understanding of what we are supposed to do with our traditional notions of determination and free will, meaning these people have a purely epistemic framework for probability, they never arrive at a fundamental ontology for it. This is a problem since it entails that the overwhelming majority of people, even the majority of physicists, still have a fundamentally concrete macro-level deterministic worldview in their heads in spite of this worldview being provably incongruent to reality.

When it comes to probabilistic problems (which is what all physics, economics, psychology, and many other quantitative systems are), it is not clear if there is a good method for getting anything like a real prediction. I.e., the *Monty Hall* problem is closed but the *Sleeping Beauty* problem is open, even though these ostensibly occupy the same class of statistical problem. The same can be said for non-probabilistic problems (which is what all ethics, art, hermeneutics, and all other qualitative systems are). I.e., the problem of responsibility, or the problem of interpretation; our understanding of these problems around causation, determination, and free will is truly confused. But what are problems anyways, and how does one come to exist in the first place?

¹²⁰ There would however be immaterial causal forces you could point to, like knowledge itself being the contingency on which the actions hinged.

¹²¹ However, if you want an uncommon understanding, Alastair Wilson does a good technical dive into positions for probabilities in his book, *The Nature of Contingency: Quantum Physics as Modal Realism*.

Metaepistemology

I know some people who think it's their sacred duty to ask why we exist – why it is that we're here instead of not here. But the real problem is more pervasive, as no one even knows where here is. If you ask someone where we are they will say Earth. Okay, and where is that? The Sol solar system. And where is that? The Milky Way galaxy. And where is that? Most people run out of answers at this point but if you ask a cosmologist where our galaxy is they'll tell you it's part of a super-cluster of galaxies and that super-cluster is in a gravitationally bound region of space called a cosmic filament, but ask one last time where that is and even the cosmologists run out of answers. No one knows where the fuck we are. Everything is in free fall and there is no bottom.

But I want to know. I want to know how the world works at every level, in every scope, across every domain. I want it all, but how do I get there? Where can I turn for knowledge? Who or what has it? Do I turn to religion? Do I turn to science? How do we know philosophers have found any units of knowledge without circularly presupposing the knowledge that such a thing was possible? Why is it that the problem of knowledge should exist in the first place? I want to believe we exist within the domain in which problems have solutions, and how fortunate we would be if all of our problems were salient, but if there is anything to be learned from Deleuze it's that real problems are problems precisely because they have no solution.¹²²

This chapter opens with a discussion on the nature of knowledge, argues against both religion and science as methods towards knowledge, and closes with an analysis of the nature of problems.

:: Knowing How To Know ::

"I don't know what willfully ignorant means and I don't intend to find out."

XRA



ften repeated in philosophy, it is better to know than to not know. But know what? And what is it to know? Contemporary epistemology seems to be characterized exclusively by the debate around the definition of knowledge as justified true belief, where it is required that you have a justified belief in something and that the something also be true. But I don't care much about the debates around the Gettier description of knowledge and subsequent arguments, partly because Plato already anticipated that some classes of justification were weaker than others, and partly because the real problem seems to be with the other criterion instead.

You believe something and you have justification for it, but the thing must also be true out there in the world. Okay cool, how do you *know* it's true out there in the world? Because you believed it and had justification for it? Well then justified belief was all that was required for knowledge, since truth would be entirely contingent on that alone. And what of your initial belief? How do you know you believe the thing in the first place?¹²³ Oh, you 'just know'¹²⁴

It is always a problem when you apply any of the criteria for knowledge back onto themselves. In order to know something it must be true, but how do we know that it is true? We must believe it, but how do you know the belief in the thing is true belief? We must have justification then for the belief, but how do we know the justification itself is justified? In essence, how do we know that we know?

¹²² It'd be more accurate to say Deleuze thought that solutions re-inscribe their problems back into the world, that what it means to be a solution is precisely that there is some problem, making it so that the problems never really go away.

¹²³ There are some interesting examples around this in *Knowing That P Without Believing That P* by Myers-Schulz and Schwitzgebel.

¹²⁴ This is basically the same criticism many postmodernists have made about correspondence theories of truth.

Whenever anyone gives something as a criterion for knowledge, it seems to rest on that criterion necessitating knowledge as a criterion for itself.¹²⁵ So it would appear that in order to know something we must also know an infinite regress of things related to our knowing of it.

The criticism I find most interesting is simply that there are cases in which knowledge does not entail truth. False things are knowable, we know things that are false just as often as we know things that are true. In many instances they even seem to be concomitants. If you know that you are not the king of France, then you also know that either someone else is the king or that France simply has no king. From negative knowledge we derive positive knowledge all the time, and the same happens in the reverse direction – if you know all the species of snake that are venomous, then you also know which ones aren't. You have the same amount of information from something's negation as you do from its positive assertion; a negation of only some possible properties means you know which properties an entity has in virtue that they were not negated in the property list. Here we have falsehoods satisfying claims to knowledge. We could say that we know false things only because it is true that they are false, but just the same there is an equivalence class of true things that are false because it is false that they are true.¹²⁶

Anyone who seriously considers JTB as the criterion of knowledge quickly finds problems with it, yet it seems almost every philosopher still uses it as the standard formula anyways, as if to shrug and say there is no real alternative. I propose that we don't need an application-level theory of knowledge at all, and that when dealing in *capacities* for knowledge we evince a meta-epistemic theory of knowledge whose criteria are jointly sufficient for avoiding the standard criticisms of all other frameworks.

Do you, or does anything, have the capacity for knowledge or not? We can play both sides of this game and see where they lead. If you can be conscious of the truth value of any state of affairs, regardless the method or formula for attaining the truth value, then units of knowledge exist and you have a capacity for them. If you cannot be conscious of the truth value of any state of affairs, then either units of knowledge themselves don't exist or you don't have a capacity for them. Generalizing from you to any possible 'knower', i.e. any possible entity conscious of the truth value of any state of affairs, either 'knowers' are themselves possible or not. Let's start by saying they are not possible – no one can be conscious of the truth value of any state of affairs, not even this one, which you would be conscious of. This self-defeats, so the inverse must be true instead – anyone can be conscious of the truth value of any state of affairs. So knowledge exists and knowers are that which have a capacity for it.

I'll place more discriminate bounds on what constitutes a knower, so as to not over-broaden the term; this can be a real problem since other frameworks for knowledge ironically do not limit knowledge to knowers. For example, in JTB any entity capable of qualia can have justified belief of true states of affairs since the qualia itself is justification and concomitant to belief (where belief itself can come as experiential qualia). By that description an ant has knowledge since ants have qualia, or some kind of sense-perception, yet ants do not poses a semantic of that unit of 'knowledge' nor perform any inference on it, and thus are not themselves anything like what we would expect of a knower. Here what we would typically call knowledge, the subject-dependent adjudication of logical consistency or inconsistency between concepts or objects in the world, I call a 'sense of humor', where your humor would be what determines how you know things. This explicitly confines knowledge to entities with the capacity of internally adjudicating logical consistency, so knowers are entities conscious of truth values such that they can adjudicate the truth values themselves. It literally humors them to do so.

It follows naturally that 'units' of knowledge are evinced by statements with truth values where segmentation by logical operators divides the primitives, meaning the statement, "knowledge exists **and** knowers have a capacity for it," evinces two units of knowledge, firstly that knowledge exists and secondly that knowers have a capacity for it. This is natural in the sense that nature is formal absolutism and formal absolutism predicates the ontological order of state-hood, thereby adjudicated the relation between the statement and the state of affairs, showing that they were actually the same thing *ab initio*.¹²⁷ To clarify, I am not saying false statements like, "All dogs have one leg," forces reality to

¹²⁵ This is not totally unlike some of the points made by Wilfred Sellars' famous myth of the given, which is a great way to balancing out standard views in epistemology.

¹²⁶ A loosely similar point can be made to the unknown knowns described in *Slavoj Žižek on Donald Rumsfeld*.

¹²⁷ For those who believe that statements and language are subjective, then why not also traffic laws? Just as everyone imposing their own individual system of traffic law onto the roads would lead to lots of crashes and death, so too would everyone making their own system of language lead to lots of verbal crashes and conceptual deaths (that is, death of the mutual intelligibility of concepts). To avoid death, there is a

conform dog-hood to one-legged-ness, I am saying that the adjudication of the truth value of statements is really you reaching out and touching reality directly with your senses (of humor). In this particular case of all dogs having only one leg, you have identified the entire space of existence in which the statement is false – which is all of reality since it is never true – giving you the negative space you readily traversed with your thoughts, making your thoughts and the otherwise external space indistinct.¹²⁸ This implodes correspondence theory by reducing the two sides of the correspondence to the same logical instantiat. Here I would also say that 'justification' is just reification – that justification is when you provision formal proof for something giving you contact with the real. In line with the main goal stated in the metaphilosophy chapter, this is an epistemic architecture that is, in my estimation, indistinct from its metaphysics.

But what of the opening statement that it is better to know than to not know? There seems to be a great wealth of useless knowledge, bits of information that have no meaningful or practical purpose. Is the number of oxygen atoms in the room even or odd?¹²⁹ There is seemingly no possible application this information could ever have. But we also have no way of finding out. It's not currently possible for us to find out how many oxygen atoms there are in a room. This is important to note because the knowledge that would be required to determine this piece of information justifies its pursuit many times over, and *that* knowledge has near-endless practical and meaningful uses, making it at least better in *capacity* to know than to not know. Denying this is to deny your capacity to know you deny it, which self-defeats.¹³⁰

If we had the understanding necessary to invent a device that could reliably and accurately determine exactly how many atoms of a certain type were occupying an arbitrarily-sized space at any given time, then we would also know how to gain atomically precise measurements for just about anything else we would ever want to measure. This would be the greatest instrument of measurement humans ever create; would that not justify its pursuit?

Another example: it seems meaningless to know precisely how many hairs are on the head of a random person, but I contend that, given a full head of hair, this too is outside our current ability to find out. By the time you finished combing through an average head of a hundred thousand hairs, the number will have changed.¹³¹ You would not know how many old hairs had fallen out and how many new ones had sprouted, changing the total count by an amount you could not know the quantity of. However, if you had access to a device that could accurately track all the hairs on a head at the same time, then you could know what the total was, whether it was even or odd, and so on. But we don't have this technology, and the knowledge required to attain it would again justify its pursuit many times over.

In fact, were such measurement devices to be invented, we could arbitrarily expand their usefulness by turning them into game shows or something similar. How many hairs are on this contestant's head? Is the number of atoms in their hair even or odd? The right answer wins you a billion dollars, or whatever. You can set the stakes to be however arbitrarily high you desire if this knowledge was actually attainable, making this kind of knowledge useless only so long as you don't value your own life. A man holds you at gunpoint in a grocery store, he wants to know the exact number of fish in the Atlantic. Stranger things have happened.

All knowledge that people generally agree on as completely useless or impractical rests fundamentally on states of affairs we don't currently have access to. Just the same, every example I have seen people give of knowledge they claim to know is totally useless have always been something trivial to find a use for. This even includes the long list of 'useless information' in pure mathematics, as what was for two thousand years considered totally unimportant and meaningless number theory is now the basis of all of computing, encryption, banking, and so on.

standardized rule-set everyone must universally concede to. Some rules may be sub-optimal or unjust and a similar universal concession gets occasionally made to augment the rule-set. Despite however arbitrary the modifications may be, once the modification is made it is no longer arbitrary; everyone must once again concede to the newly augmented universal rule-set or the otherwise easily avoidable deaths pile up. Not only does this mean language is objective, it makes the existence of centralized arbitrating bodies of languages an ethical imperative.
¹²⁸ It would directly follow that thoughts literally leave your head and travel at infinite speed across reality, but I'm not yet completely sure what that would entail.

¹²⁹ Alexander Madva gave this example to me.

¹³⁰ Another Gömböc argument.

¹³¹ Murphrey, et al. *Anatomy, Hair* — <https://www.ncbi.nlm.nih.gov/books/NBK513312/>.

Where you fall on this issue is a litmus test (yet another thing that would have been considered useless before its modern application) of whether you are a sophist or a philosopher.¹³² To the sophist, knowledge is a means to some ends, but to the philosopher, knowledge is an ends in itself. The distinction here is in whether you think knowledge *needs* an application in order for it to be worth pursuing versus whether you pursue it for its own sake. The philosopher doesn't need knowledge to be practical and the sophist doesn't understand why you would bother with it if it wasn't. This is a meta-epistemic break; the sophist, by self-preclusion, is not *capable* of learning how the world works for its own sake, which means they are missing a critical tool for learning how the world fundamentally works in the first place. If only *that* piece of knowledge was practical, right?

Some have argued that there are clear examples where it is *worse* to know something, what are called information hazards (and more recently, 'malinformation') – units of knowledge that are dangerous to share. The premise of information hazards relies on the spread of knowledge being *risky* – that sharing certain facts about the world could directly cause harm. Frequent examples I've seen include facts about what common household supplies can be used to make explosives, or differences in IQ between demographics. If you shared the nuclear launch codes with everyone on the planet, some people will end up using that knowledge to harm millions of others. Therefore, it is argued, that some knowledge is evil to share.

However, information hazards don't appear to be real normative indicators. Knowledge is only ever hazardous if you don't know what ought to be done with it – a problem solved by gaining even more knowledge. I see the real hazard as acting without thinking,¹³³ so I've devised two cases, a weak and a strong case, for why the concept of info hazards seems to fail normatively.

In the weak case, if telling people about testing done to animals (pigs, mice, monkeys, etc.) evokes the strong psychological suffering of many humans, then instead of ending the animal testing, you could just stop telling people that you're doing it and you'd reduce the same amount of psychological suffering done to the humans without stopping the actual harm done to the conscious beings being experimented on. In this case the information just *feels* bad to know, and the actual harm being done to the animals is in no way reduced. But somehow it is supposed to be better that you've reduced psychological suffering despite no real improvement to the source.

In the strong case, we can point to information hazards relying on statistical assumptions of risk – that there is some 'likelihood' that some person in a large enough sample size will immediately use the information for harm. This relies on probabilities and excludes other relevant epistemic dependencies like knowledge of what harm even is, for knowledge of the good would preclude one from abusing knowledge of evil. If teaching high schoolers how to effectively use firearms results in more high schoolers shooting each other, then the hazard was in failing to also transfer the knowledge relevant to motivating good behavior around the use of firearms. W.V.D. Busby pointed out that totalitarian states can motivate good behavior at the cost of much harm, opening space to disagree with the assumption that we can motivate good behavior without incurring even more harm, but this doesn't do any work towards proving that knowledge itself is evil, only that certain forced behaviors could be harmful, which is a trivial point. The conclusion I draw from this stronger case is that info hazards are really just the probability spaces of ignorant behavior, which is ironically equivalent to the space of how much information an agent *doesn't* have regarding the same behaviors – an ignorance hazard.

But what if some pieces of knowledge are evil to know in themselves? How many people can one really fit into a death oven? We could easily argue that the answer would be unethical to attain. More specifically, the qualia of what dozens of people burnt alive smells like seems like something we *shouldn't* know. We say that's not a qualia we ought to have access to, since attaining that qualia requires you to burn dozens of people alive. This argument rests on the notion that qualia of ostensibly evil outcomes are dependent on the production of evil acts. But knowledge is usually generalized, e.g.,

¹³² On sophistry; people usually misunderstand what the word means or why it was distinguished from philosophy by the Greeks. The sophists were people who got paid to educate students, the word refers literally to teaching for pay. The philosophers were distinguished by the fact that they taught students for free – the idea being that knowledge is an inherent good and so limiting its access was evil. It's knowledge as a means versus knowledge as an ends in itself. The problem with sophistic thinking is that language gets turned into a mere means as well. The interactions with sophists, and the practice of sophistry, is such that they reduce all states of affairs to language alone and thereby claim that you are only ever attacking their phrasing and not what they actually believe. So in practice they think they are never wrong and you are just 'arguing semantics' when you disagree with them. This is why sophists often use subjectivist and linguistic reductionist arguments.

¹³³ Žižek's *Don't Act. Just Think.* makes good points on this.

someone working for a county's building permit division has to calculate how many people can safely fit inside a given building and this information is listed as the 'maximum capacity' for that space, which is the same formula used for determining how many people can be packed into a gas chamber. In the case already given, many people that work at crematoriums have experienced the smell of burning humans – lots of people have learned what burning humans smell like without having to do anything harmful to any living human. So knowledge being generalized means the production of evil acts is not required for the production of qualia assumed to be related to evil acts.

But you argue that burning a dead human and burning a living one may result in different qualia and knowing whether it does or not requires that you burn a living human to be sure. So, surely, *that* knowledge is evil, right? While *accessing* that knowledge seems to require you to commit some evil act, this is not proof that a particular unit of knowledge is in itself evil. You can prove that *accessibility* to certain classes of knowledge is evil all day without ever getting a step closer to proving that the knowledge itself is evil. In reverse, if you disable a knower's *capacity* for certain classes of knowledge, then you also disable the capacity for knowledge that the classes' *access* would be evil, creating a hazard since the lack of information greatly increases someone's chances of unwittingly doing the hazardous thing. This is again the opposite of an information hazard, it's an ignorance hazard.

Additionally, given the passage of time, things which take some value may end up acquiring a different value where the two values are exclusionary.¹³⁴ Another way to say this: if some piece of knowledge is evil now, in our current use, how do we know it will not someday be good in some modified use? Or vice versa. This has been used to argue for the neutrality of knowledge, that it is neither good nor evil, but rather that its use is the good or evil thing. **This weakens the moral import of knowledge.** As stated earlier, knowledge is only ever problematic if you don't know what ought to be done with it – a problem solved by gaining even more knowledge. Applying knowledge in the right way is what we call wisdom, but the 'right' way implies ethical consideration, and how would we know what ethical considerations to make? This would seem to make any moral import of knowledge totally circular since we only know what units of knowledge are good or evil to know once we have knowledge of good and evil, which we couldn't have known was good or evil to attain before we attained it.¹³⁵ Therefore, it is never worse to know than to not know *in capacity*, making the capacity for all classes of knowledge better than its negation, i.e., it is always better to know than to not know in capacity.

This seems to evince the notion that knowledge is literally power.¹³⁶ Whenever we see an exercise of power, the latent semantic content in the relevant knowledge and the symbolic relation of power to its exercise seem to be indistinct. What we call power is, in every case anyone seems capable of presenting, an exercise of some privileged access to knowledge – privileged in that the knowledge was scarcely rationed, that the exercise has no known counter, or that the exercise happens faster than the other party could have known it would. Exercises of power are always predicated by the knowledge of how and when to enact the exercise. This is true even for particles, at the most fundamental level in physics we see that information can only be manipulated given some similar informationally relevant source. At the human level, superior power seems to rest fundamentally on who figured out the most things the fastest, modulo that what was figured out is relevant to the task at hand.¹³⁷ A lot more can be said on this, specifically around the place of knowledge – sayings like, "information wants to be free," versus similar but contrary sayings like, "information freely given is worth little."¹³⁸ But the nature of knowledge's relation to power, or ontological equivalence to power, seems to be a topic more suitable to anthropologists, sociologists, and political theorists, so I'll leave further discussion on the topic to them.

I have argued for what knowledge is, that there exist discrete units of it, that it is not useless or impractical, and that it is good, all qua capacities. I will conclude by making one final point – that there are no epistemic limits in principle, no knower bound in finite knowledge except by purely practical

¹³⁴ W.V.D. Busby noted this.

¹³⁵ "Where everything is bad it must be good to know the worst." – F. H. Bradley

¹³⁶ I don't mean this as Foucault did, where knowledge was always a class of social power (or at the very least operated as a structure which bound social relations), I mean it more fundamentally as an identity statement giving indistinction between the epistemic and the ontological notions of power.

¹³⁷ This also gives credence to the notion that there are race conditions in epistemological ethics just like what occurs in computing. Every second we waste not learning how the universe works is power we are giving to some other group of people instead.

¹³⁸ If knowledge is power, and knowledge is good, then by transitive property power is good. This has interesting consequences that get discussed later in the book.

arrangements. Another way to say this is that the notion that there are questions whose answers we will never have, either because more questions will arise, or because the answers are beyond our comprehension, seems weak.¹³⁹ To paraphrase Wittgenstein, to place a limit on thought is to think both sides of the limit.¹⁴⁰ I believe it to be self-evident that once you are a knower, meaning once you have the capacity to be conscious of the truth value of premises or states of affairs in the world, you have passed the last significant cognitive threshold whereby you are just capable enough to formalize your thoughts and tap into universal reason (formal logic) and you necessarily then find there is nothing beyond that which you can think of and know.¹⁴¹ If you disagree with this, then you are claiming that you don't have the capacity to formalize the thoughts or tap into the universal reason that would make your disagreement possible, which is functionally retarded.¹⁴²

In Frank Jackson's qualia arguments, his famous *Mary's Room* thought experiment, it is demonstrated that knowing things like the frequency of red will never give you the qualia of red. This is not a principle limitation but a practical one, since Mary's environment is what limits her. But imagine for a moment that we were presented with the reverse task instead. Mary is now *not* a scientist, she doesn't know how any of that shit works, and she exists in a room comprised of nothing but shades of red. Nothing about her experience gives her the frequency. Since all empirical knowledge is supposed to be given (verified or falsified) by qualia, and it now seems that qualia gives you no facts about empirical objects themselves, there is, for principal reasons, nothing strictly knowledge-like about the outcomes of empirical observations. The inference from a quality of the world (the qualia) to some quantity of it (the frequency) is only possible given that we can in fact *infer*, which is a purely deductive act. Paired with the fact that people regularly make discoveries of things they cannot observe, I believe that what we call inductive reasoning ends up being deductive reasoning in disguise – this is effectively Karl Popper's insight, however Popper's *critical rationalism* still relies on sense perceptions to justify empirical falsifications and so my problem with qualia persists. This would reduce the whole of science to a purely logical space for us to explore. The Vienna Circle tried adding sense observations to logic, or verifiability to philosophy, but I am stating the opposite – merely that logic can be added to sense observations.¹⁴³

Another thought experiment for proving that knowers have no principle limitations to knowledge is what I call the opaque box. Proposing that there are things in themselves by which knowledge is principally impossible makes it so that there could be an epistemologically opaque box somewhere in the universe that cannot be probed in any way by any means, a box that is principally cut off from the rest of reality. We would have no idea what was inside this opaque box, it could be anything, and anything means anything, so it could contain information that proves knowledge itself is impossible. This means that if there is no way to have knowledge of certain things, for any possible knowers, then we have total epistemological annihilation. But we could formally prove this, so we would *know* it.

The problem compounds on itself: if we are to say there are objects that exist that are in principle unknowable, then how could it be the case that the objects exist in the first place? Unknowable things that are unknowable in principle are not simply things that are unknown, but things that cannot be known, which means that there are no informationally reducible facts or truths about those things and therefore no effect those things have on existence. This is proof that things that are 'unknowable' in principle are things that simply do not exist. They couldn't have any knowable properties either since we would then know the object by the observation of its properties.¹⁴⁴ There would even be no knowable interaction between the principally unknowable object and knowable ones, else we could infer the interaction and then know something interacted with it. Generalizing this to

¹³⁹ "Eventually I concluded that language was bigger than the universe, that it was possible to talk about things in the same sentence which could not both be found in the real world." – From Mike Alder's *Newton's Flaming Laser Sword*.

¹⁴⁰ This is of course from the opening to the *Tractatus Logico-Philosophicus*. It also parallels an earlier idea from the last chapter that we can know everything since our thoughts regularly visit notions of 'everything' as well as both possible and impossible objects, the set of which encapsulates all things.

¹⁴¹ I am of course drawing a lot of my sentiments about this directly from Wittgenstein's private language arguments.

¹⁴² Because it retards the function of the disagreement.

¹⁴³ And less directly, that sense observations are fundamentally logical operations.

¹⁴⁴ I am not reducing object-hood to something like Alexius Meinong's view where existence is a *mere* property of an object, but I am making the claim that if an object exists then so do its properties, and therefore knowing of a property of some object means we also know of the object's existence.

reality itself, it must be the case that all aspects of reality are in fact knowable, else we have the opaque box. Disagreeing means you are claiming that you can demonstrate the existence of something that you also claim is in principle impossible to demonstrate the existence of. That would be very silly.

I now claim that all knowledge is superficial – that knowledge is trivially accessed so long as you have the right tool to access it. The intuitive example is the internet, but anything unknown can be easily known if you have the right microscope, telescope, mathematical understanding, submarine, lock pick, or whatever it is that gains you entry to where it is that you want to be in order to learn what it is you want to learn. If we want to know everything, from the fundamental nature of reality to the most irrelevant aesthetic notions, where do we need to be to learn this? What tool gains us entry to that space? Well, we would need a limitless tool for exploring the infinite, unending space of reality. The prior paragraphs tell us you are already at the right place, and already have the right tool, both being your mind. This is all to say that no resource is ultimately scarce, warp drives are real, aliens have already visited, the universe has no edge and neither does your mind, for to place a limit on thought is to think both sides of the limit. This world is abundantly expansive and inexhaustible; you will never run out of ways to amuse yourself or worthy ideas to explore so long as you task yourself with doing so. Get excited, be energized, do more.

* * *

:: The Impossible Simulation Theory ::

"People who are ignorant of their religion (the non-religion religion of the West), and of the nature of society, laugh at the Indian for having slaves in a caste system, unawares that modern day vegans are walking Chandalas. The vegan doesn't sacrifice the cow because the cow is their Totem Animal, but Westerners, unable to think anything besides utility, understand as 'they worship the cow because it gives them useful milk'."

W.V.D. Busby



This is a short piece I have included as a build-up to the religion and science section since simulation theory is itself only pseudo-scientific and mostly blind faith.

Simulation theory as formulated and popularized by Nick Bostrom says roughly that just as it is becoming easier for us to simulate small universes inside computers, it is also becoming increasingly possible for us to simulate large universes, ultimately culminating in the ability to simulate many galaxies with complete detail. Further, that since this is possible, it is similarly possible that the simulated people who evolve out of our simulated universes would themselves acquire enough intelligence to simulate universes on their simulated computers, ad infinitum. They also somehow have substrate independence, don't think too hard about it. The thesis of Bostrom's paper is that since there is not just possibly, but probably, an infinite series of simulated universes, the likelihood that we occupy the original one is vanishingly small, making it so that we essentially have a one-out-of-infinity chance of not being simulated ourselves.¹⁴⁵

To quickly obliterate this idiotic idea that has gripped so many otherwise intelligent people, many of whom I deeply respect (including Bostrom himself), our universe, by almost ubiquitous contemporary consensus,¹⁴⁶ is infinite. To simulate infinite space you would need infinite processing power, a feature that would itself require infinite space. So for simulation theory to be true, the universe doing the simulating would have to dedicate the entirety of its existence to the singular task of simulating. This is not possible, so simulation theory can't be about an infinite universe. Simulation theory therefore doesn't apply to our universe.

Of course, Bostrom says that these other civilizations, "would have enough computing power to run hugely many ancestor-simulations even while using only a tiny fraction of their resources for that purpose."¹⁴⁷ His point being that you don't need to simulate an infinite universe, you could simulate a

¹⁴⁵ Nick Bostrom's essay — <https://www.simulation-argument.com/simulation>.

¹⁴⁶ Of astrophysicists.

¹⁴⁷ Also from Nick's simulation essay.

finite one with less detail than the simulating universe itself had and you would only have to simulate the minds of a group of people to make it appear as if their universe was much bigger than it actually was. But we have no reason to believe, "these simulated people are conscious,"¹⁴⁸ because simulation is not duplication. Nagel's mind-body problem, Chalmers' hard problem of consciousness, and Searle's Chinese room all make it clear that Bostrom's conception of a purely physicalist mind is not tenable and so the notion that we could simulate minds falls apart. The people that believe in simulation theory conveniently don't care about this, so I'll move on.

The other critical failure is that simulation theory is ultimately no different than Descartes' evil demon who systematically deceives all your senses and mental faculties. Just the same it is semantically equivalent to Putnam's brain-in-a-vat experiment. Both of these thought experiments have large bodies of literature that have piled up around them showcasing how these worlds would be structurally incapable of justifying themselves. As consequence, simulation theory is structurally incapable of justifying itself too.

Notably, Descartes' evil demon was first disproven by Descartes himself, as his *Meditations* is explicitly about how you could discover all the truths of the real world despite being completely deceived about them initially. The literature around brain-in-a-vat arguments is muddier since it is syntactically more clever and has therefore tricked more people into believing it is possible, but Putnam himself disproves brains-in-vats (by way of semantic destruction no less), and its analogue to the all-deceiving demon means it can similarly be dismissed.¹⁴⁹ Not to mention that that our brains being simulated starts to get dangerously similar to a form of solipsism, which is itself provably impossible through myriad techniques.¹⁵⁰

As a much worse problem, if somehow I'm wrong and Bostrom is right, not only do we live in *The Truman Show*, we also have a new and improved form of Aristotle's prime mover to contend with. Forget trying to determine the first cause of our universe, our prime mover was *simulated*, so now we have to determine our prime mover's prime mover! Talk about turtles all the way down. Putting the label of 'simulation' on the world doesn't do any work towards describing how the world actually works. In turn, simulation theory doesn't have any shells left to stand on and I'd really press any contemporary philosopher on this if they still believed it since past these critiques the belief becomes dogmatic.

The rest of this chapter has been excluded from the preview.

¹⁴⁸ Ibid.

¹⁴⁹ Specifically, here is a diagram of the problem Putnam describes (I couldn't find the source) — <https://snerx.com/img/BrainsInVats.png>.

¹⁵⁰ Solipsism fails any kind of internal consistency test as Schwitzgebel & Moore demonstrate in *Experimental Evidence for the Existence of an External World*.