DataLogical Metaphysical Theory: Reloaded

The Natural Simulation Theory of Reality

A Dialectical Distillation of the Essential Elements of Existence

An Anatomical Overview of the Transcendental Ground of Being

A Rationalistic Reduction of Reality to Only That Which Is Irreducibly Real

The First True Theory of Everything

"Everything before this has been dynamic; this alone is static."

"I can't tell you if it's true or not, but it's the best attempt I've ever heard."

"Isn't that what we already think though?"

"It's not that it doesn't make sense it makes too much sense."

"DataLogic is what humanity has been seeking since we first evolved."

Content Key

Introduction

"The question of necessary existence is relevant to several fields of inquiry, including cosmology, ontology, and theology. Start with cosmology. Many physicists and cosmologists are extremely interested in questions about ultimate explanations. Stephen Hawking states that his goal as a physicist is "a complete understanding of the universe, why it is as it is and why it exists at all". Echoing a similar sentiment, cosmologist Sean Carroll writes, "We are looking for a complete, coherent, and simple understanding of reality". Brian Greene, a theoretical physicist, asserts that an ultimate explanation of the universe "would provide the firmest foundation on which to build our understanding of the world". The search for an ultimate explanation invites a question: what kind of an explanation can be ultimate? Can contingent reality alone constitute an ultimate explanation?" - Alexander Pruss, Necessary Existence

DMTheory is a proposal in the domain of metaphysics, a field of study which concerns the first principles of things, including abstract concepts such as existence, knowledge, identity, space and time. In other words, metaphysics deals with the first principles of things in general, especially of their existence (which is obviously a necessary precondition for successful predication about any of these topics). Consequently metaphysics must give us first and foremost an account of existence as such - a description of all elements and factors which enter into the determination of base reality - and this is indeed what most 'metaphysical theories' attempt to do. Perhaps the primary metaphysical question or 'problem' which we must attempt to solve is that of why there is something rather than nothing. Further than this, however, a coherent metaphysics should give us a clear idea of what precisely that 'something' is, and consequently of how that 'something' which is (necessarily) the case leads to the existence of our own concrete and specific world.

The sub-domain which specifically concerns the nature of existence is called ontology; this is metaphysics in its purest form because, being the study of first principles, metaphysics principally concerns the first principles of Existence, as all other domains for which we might inquire after first principles are derivative of Existence and therefore secondary to it. Where physics is the study of the principles which govern the nature of matter and the mechanics of motion, meta-physics goes beyond the constraints of physicality to ask more general questions about the principles which serve as the conditions of possibility for our world. If physics concerns the mechanics which make matter possible and govern its motion, then meta-physics concerns the mechanics which govern and make possible physics itself. Why is it that this particular world exists, rather than any other? This is a question which can only be answered by metaphysical philosophy.

DMTheory is an attempt to sketch out a prospective solution to these problems, and if plausible it would constitute a naturalistic ground (and therefore explanation) for the existence of contingent objects and beings, such as ourselves. In other words, a naturalistic metaphysics such as DMTheory would provide a plausible potential alternative to the notion of a conscious creator god who is responsible for the existence of the universe. In addition, such a solution would be far simpler. Consequently, if true, a metaphysics of this kind could give us the beginnings of the first successful theory of everything, which, if followed through on, could thereby serve as the foundation for the consolidation of the truth of our best physical theories.

Indeed, from the outset it must be admitted that physical theories can never fully account for the nature of reality, because once their explanations have been exhausted there is always a question which remains unanswered, namely that of why the physical variables have the values which they do, when logically they could be otherwise. This is a fact which calls out for an explanation, and yet a physicist is incapable of furnishing one, because by the nature of his trade the only recourse he can have is to physical variables which themselves cry out for support in the same way. This is what is meant by the question posed in the quote by Pruss from the start of this paper: can contingent reality alone constitute an ultimate explanation?

In answer to this, the author can only reply 'no', because such a contingency must always leave room for inquiry as to what really 'made it so', so to speak. This means that a grand unified theory of physics simply *cannot* constitute an ultimate explanation, because it must be predicated upon physical principles the existence of which cannot be given a warrant in terms of other physical principles, on pain of an infinite regression of vicious circularity. In the final analysis, any and all contingent facts must be justified in virtue of some non-contingency which serves as the Ground. If we deny this, we admit an explanatory lacuna.

This of course assumes that the PSR is true and has a wide scope, but the author considers this not only self-evident and therefore relatively uncontroversial, but also well-supported by the productions of reflective reasoning. Yet one might object to this assumption, or – more importantly – one might not be familiar with the PSR at all, and thus I must elaborate briefly. The PSR is the Principle of Sufficient Reason, and it dictates that "everything which is true, everything which exists, and everything which happens, is true, exists and happens *for some reason which is sufficient to make it so.*" One might think of the PSR as a sort of philosophical generalization of the intuition behind our conception of causality, namely that for something to happen, something else must precede it and 'bring it about', as it were. In short, everything has a reason.

It is thought by some that the PSR need not be true, or need not have as wide a scope as will be assumed throughout this paper; in defence of this objection, one commonly hears appeals to 'brute facts', where what is meant is something like an ungrounded nomological principle. Thus, such a consideration is typically invoked to combat the fine-tuning problem, or rather to avoid having to confront it by way of trivializing it and denying that there need be an answer to such a question. Yet it is plain that such a response goes entirely against the grain of reason – how can we really think that things can be true for no reason, and still believe that the world is the kind of place about which one can indeed reason successfully? If there are things that happen for no reason, it is not clear why we would ever bother trying to explain anything at all!

Therefore, some who doubt the PSR do so on the basis that reason is itself considered to be suspect, incapable of providing anything but the most tenuous of connections with a noumenal thing-in-itself, and therefore unreliable in relation to generalizations as ambitious as the PSR. This is worth thinking about, and will be dealt with at greater length during the discussion portion of the paper, in the section on truth.

There are however other, more pragmatic reasons that we ought to seek out a theory of everything which have nothing to do with what might be regarded as an esoteric philosophical commitment. It is plausible to think that such a theory might contain within itself the signature for a theory of truth capable of integrating the various competitor-theories into a coherent whole. This would then allow us to ground our concept of utility through both correspondence and coherence, giving us a truth-tracking way of speaking that could serve as a mutual foundation for the emergence of a progressive moral discourse. It would also give us guidance in the quest of unifying some of our best yet most contradictory theories of physics, by supplying a common context, true of both. Such is the necessity of metaphysics: until there is a common concept of the ground upon which we can all agree, there can be no recourse for apparently insoluble differences in perspective. Yet, on the very eve of the new conception, new possibilities for harmonic resonance are born.

These are just some of the motivations for pursuing the 'first principles' of existence, a problem the solution of which could provide our species with a basis that might equalize the polarization which comes with religious and ideological fanaticism. At the very least, it would provide a stable and consistent foundation for negotiation between different faith-based organizations, and what's more it would provide a common link between atheists and religious people that could help them to create inclusive spiritual communities. Perhaps most importantly of all the motivations, however, is the desire for the truth, a desire which has animated the curiosity of humanity since the beginning of time. This is what is expertly captured in the quotation I included at the start: a thirst for knowledge, the human need to know – that sense of curiosity.

For the sake of brevity, this account of DMTheory will completely exclude the method by which it was derived, as well as the back-story for its development, which is nonetheless considered interesting on its own account by the author. This paper seeks merely to provide a broad-strokes summarization of the central insights of DMTheory containing only details which are considered to be essential for the reader to properly understand the ideas being put forward. For the reader who is interested in a more comprehensive account of the theory, including all of the supplementary details which are necessary for a complete picture of the context in which the idea was developed, refer to the as-yet unpublished work, which will be titled DMTheory: Unlocked or DMTheory: Explored. This work is due to be completed within two years of the publication of this work, depending on the level of interest. Due to its length, it will likely be in book-form.

Prior to laying out our prospective solution, first we must consider what criteria we will be using to evaluate the theory, on the one hand to establish its basic merits, and on the other to compare and contrast it with other available metaphysical accounts. When speaking about metaphysics, neither inductive nor deductive reasoning will do; inductive because there is no direct evidence of the metaphysical - such can only be inferred, indirectly and somewhat dubiously, from the physical world - and hence there are no clear-cut cases through which we could formulate an inductive argument. Furthermore, there is only such candidate case, and just one case cannot an induction make. Deductive reasoning also proves to be an unreliable approach (although it may help us to evaluate a solution once proposed) because there is no viable way to establish that any specific set of premises holds of base metaphysical reality, from within physical reality.

Consequently the best tool available to help us move forward in this unique inquiry is what is called abductive reasoning, also known as an inference to the best explanation. The primary conditions imposed upon the explanation will be a) that it is logically (internally) consistent, b) that it is (externally) consistent with the empirical evidence and coheres with the most relevant theories we have that purport to explain that evidence, and c) it must be prima facie plausible as an explanation of the relevant facts. If, after reflection upon the implications of the theory, an attempt to draw out these implications results in contradictory or otherwise unsatisfactory results, then plausibility fails to suffice and we are given reason to doubt the theory. On the other hand, a careful analysis which fails to identify any logical flaws within the theory gives us a good reason to take the theory seriously if it appears to provide a reasonable explanation for existence both in general and in specificity. Even better if this model neatly solves certain puzzles.

Furthermore, when it comes to comparison with other metaphysical accounts, we will prefer those which are simplest/most parsimonious (having the fewest assumptions and, if possible, none which are not completely necessary) and those which are based upon incorrigible foundations. In other words, we will prefer axioms which cannot be doubted due to their falsehood being logically inconceivable, and we will prefer theories with as few axioms as possible. The other primary criterion would be explanatory scope and power – ideally, wide and strong. This of course is extremely vague; for more details, refer to the discussion.

Note: For the purposes of this model, the author presupposes the laws of logic, and takes it that the subject under discussion is amenable to logical inquiry and analysis. This requires more, however, than a mere presupposition of the laws of logic on the part of the subject, because it additionally presupposes that the laws of logic are invariant everywhere and that they literally could not be otherwise, even in other worlds, or in any similar such construction. This means that the author presupposes that the laws of logic are foundational to the structure of reality, which might fairly be contended; that contention, however, is beyond the scope of this piece of work. This objection will be dealt with briefly in the discussion portion, and dealt with in full in the forthcoming work mentioned already, for those who find it questionable. In addition, it is given a thorough treatment in ta supplementary essay. This work is available at http://bit.ly/DMTDropC & https://medium.com/@1nsing/the-critique-of-method.

Critical Considerations and Clarifications

In this paper, there are certain terms which will be given a special sense that they do not ordinarily possess in everyday discourse, and such words will be defined within the same scope in which they are introduced where possible. If, however, there is an instance of an expression which does not receive such treatment, further information can be found within the glossary that is provided as an appendix to this work. We will also employ a novel capitalization schema with respect to key terms within the conceptual apparatus. The purpose of this notation is to mark an important cleavage between the ontic referent of a term and the subjective concept which represents it and which the term actually names. Hence throughout the paper, we will routinely refer to Truth and truth as different yet related entities, and similarly with logic vs. Logic.

This schema is founded on the distinction between objectivity and subjectivity, an opposition which is focalized around the property of mind-dependence. The implicit thesis employed throughout this work (and defended to some degree during the discussion) is that objectivity is ontologically prior to subjectivity and that subjectivity is therefore derivative of it. This is certainly what is suggested by the empirical evidence concerning the evolution of subjects such as we, and what will be seen is that the recognition of this priority of objectivity resonates throughout all the philosophical concepts which scientific rationality employs in analyzing the world so successfully. This can be seen first and foremost in a careful analysis of 'truth'.

The most common kind of truth with which we as subjects are acquainted is that of the property which can belong to propositions - the opposite of falsehood. We call a proposition 'true' if and only if we believe that it corresponds with the way things actually are, which is to say that the reason for ascribing the attribute 'true' to a proposition is that we believe that what is reported by the proposition is, in fact, an extant state of affairs. In other words, a sentence can be considered true if 'as it signifies, so it is'. Conversely, we call statements false when they fail to adequately describe the states of affairs which exist in the actual world – when they "say of that which is, that it is not, or of that which is not, that it is". Yet, what is crucial here is that propositional truth hinges on the nature of the objective world. Although it may be more difficult to make out, even in situations where the truth of a proposition is 'purely logical', the verity can still be traced back to the nature and structure of objective reality, as we will see during our later examination of the exact nature of logic. Analytical truths are of course true by definition, but definitons are never really arbitrary.

Hence, propositions which match with objectivity are considered 'true' precisely *because* they match what is *actually* 'True', where 'True' refers to the object of existence as such. Thus what is True is "that which IS, *as it is*, independently of anything we might perceive about it, think about it or say about it", and propositions and descriptions which are called 'true' are called that because they are properly derivative of the Truth. 'Truth' thus refers to the way things really are, at the level of 'base reality' - whatever that is. Commitment to such a notion is motivated by a variety of considerations, but chiefly among them is the puzzle of why some models are more effective at accurately predicting the behaviour of the empirical world, and why they are therefore more useful for constructing technology which genuinely works in practice. How can this be?

This, the author contends, relies on the fact that these models are 'Truth-tracking', which means that there is something favourable about the way the model is formulated such that it shares some structural correspondence with the nature of the domain of the real world which the model is attempting to describe. In other words, the logic of the model must be consistent in some way with the structural contours of the aspects of the world which are being modelled; this is what allows us to predict how the real world will behave. But what is logic? As subjects, we are thrown into a chaotic world of which we have no understanding, yet our brains have evolved to model our environments in order that we might at least survive, and potentially so that we might come to thrive. In order for this to be possible, however, our brains have to be capable of tracking regularities within the world. Our brains were born to model nature.

Over many generations, the regularities we observe in nature are preserved within oral traditions and eventually, we begin to extract out of our experiences certain principles which are reliably associated with the behaviour of certain natural phenomena. As we start to accumulate multiple of these proto-scientific models, it becomes possible to compare and contrast the models with one another, and thereby to call forth principles which are common to the reasoning used for both. To the degree that the examples of science were at all successful, these principles could be trusted as a sort of guide for further knowledge production.

Hence, before there was ever so sophisticated a concept as a scientific method, we were trying to come up with a set of rules that would help to identify the difference between thinking which could be relied upon and thinking which could not. Thus it is that we came to describe the laws of logic, also called the laws of thought, which are fundamental principles of good reasoning, where good reasoning is any inferential pattern that preserves truth which is present in the premises into the conclusion. The laws of logic help us to formulate a coherent theoretical understanding of our world, which involves many abstract concepts such as numbers, space and time. Yet the reason we developed these specific formulations is that this was our way of subjectively representing the most essential principles underpinning the structure of the actual world.

Thus the systems of subjective reasoning we have developed which we call logic are ultimately derivative of the structural regularities of the world, regularities which were not only the necessary preconditions for the very inception of life, but which serve as the foundation for the environmental factors that determine the form taken by fitness, the complement and counterpart to natural selection. In aggregate and over time, only those biological prototypes which can model their environment sufficiently to adapt to the myriad of environmental difficulties and changes can rise up to dominate the ecosystem and establish themselves as a planetary species. Consequently, it unquestionable that the Logic of the world is always the measure of the logic of man, for the very purpose of man's logic is to represent the Logic of reality adequately enough that he will be able to realize his goals. This is why purely logical truths are nonetheless derivative of objectivity, because logic itself is a construct which is only valuable insofar as it helps us to map the nature of Truth.

Hence it can be seen that the relationship which exists between Logic and logic parallels the one outlined above for Truth and truth. The concept of Logic thus refers to the structure of the mind-independent world, those regularities and consistencies which exist as part of the bona fide fabric of reality, apart from and independent of our empirical observations about them, while 'logic' is a term we use to refer to those systems of reasoning which we have derived from our observations of these fundamental consistencies, otherwise known as the laws of thought. This notion, of 'laws', is instructive, as it informs us as to what the laws of thought are meant to do: guide thought, so as to ensure that it comes to correct conclusions (about the world). How might it do this? By conforming to principles which are maps of the fundamental structure of reality. Thus logic is derivative of Logic, just as truth is derivative of Truth. These concepts are thus only effective and useful insofar as they actually correspond with the structure and nature of the world. Or at least, that is the thesis assumed throughout this paper and embodied in the notation now being explained.

Note: We can indeed construct alternative logics by denying one or more of the laws, but we cannot deny all three, and it is the author's suspicion that the law of identity is not only the most fundamental law, but that it cannot coherently be denied. Any system that denied the law of identity is not a system of logic, it is a system of flux. In fact, there is some evidence that one can construct such a system (There is one such 'model' - for want of a better word - called antilogic) however it is not one that is likely to line up with our evidence about the physical world, and therefore is not a viable candidate for building a metaphysical theory. If the law of logic is indeed the most fundamental law, then it can be seen to imply the other two laws fairly easily. Continuity of identity would seem to entail non-contradiction, which would then entail the law of excluded middle. Of course, one could argue that all three laws imply one another, which they do to some degree, but exploring the exact nature of the relationship between the laws is not the object of this paper. It is sufficient for our purposes simply to say that whatever logic we construct, the foundational nature of Logic is what ultimately permits its construction as a seemingly coherent conceptual system.

Our final example of the capitalization schema is the concept of data. Of course, we are all familiar with data, because our lives are digital now, and data is the norm, however what is meant here is more subtle.

Whenever the concept of data comes up, it is pertinent to offer a contrast with the notion of information. Information is what we call data once it has told us about the world, once it has 'informed us' about how things stand 'out there' in the environment. As a consequence of this way of thinking, it seems plain that before we have encountered it, it lies in wait of our approach - not, of course, waiting specifically for us, but just being there, as part of the world. This is why certain physicists have speculated that the fundamental substance of reality is 'information', without realizing the way in which subjectivity has thereby been implicated. Information, after all, is informative, because collected data must be analzyed by a conscious mind before the regularities can become obvious. Yet, the regularities within the data are tied up with the forces which produced every single bit, and those forces do not depend upon an observer in order to exist. Instead, those forces are the manifestations of deeper principles which might be called laws of nature, and these too are determined by factors which are deeper than deep. This, at bottom, is what Data consists in.

The term 'Data' simply designates the *Something* that ultimately is, though its true nature can never be definitively ascertained because we have no epistemic access to 'raw' Reality and so cannot comment on its objective properties, if indeed it has any. The Data is the uninterpreted information which is the ground of the environment, it is the substance of the object of existence itself, rather than the substance of its manifestations. It has also been given such names as 'thing-in-itself' and God, although I deny that the latter term applies. This Data, the 'ground' of Being, entails a variety of manifestations which are specific rather than general, and which therefore define environments and circumstances. These consists in data.

This is to say that it is within the domain of such environments and circumstances that we come across the existence of data, which is of course the meat-and-potatoes of the material consequences of the original Data. There is something there (data) that has certain qualities which might be perceived, measured or otherwise observed. The data is the uninterpreted information which is manifest within the environment. Within the scope of human existence, 'data' refers to that substance of which the empirical world itself consists, before we try to picture it through sense, observation or experimentation. As far as we are concerned, it is *the* objective world on account of being that corner of Reality which belongs to us, within which we exist. Yet just as we have seen with the other terms, the data is ultimately dependent upon the Data, for the ground of substance is a prerequisite for any substantial manifestations such as worlds.

These definitions will be employed within steps two and three to provide the model with its identity, in virtue of which it receives its name: DataLogical Metaphysical Theory. Yet the gloss which has just been given to data in its relation with Data might seem somewhat confusing, in that data is not (or not only) the stuff out of which experience is made, but it is the underlying stuff which makes up the world that the experience is-of. This then seems objective, and yet Data is thereby supplanted; what then can be the superior relationship that Data stands in, and what can Data then be thought to be? An obvious suggestion is that it is somehow 'super-objective', which is actually not too far off the mark as far as accuracy goes.

In truth, the capitalization schema is not exclusively used to mark the object/subject distinction, but rather it describes a more general relationship, a difference in scope where one thing (say data) is a dependent instantiation of another (Data), and therefore stands in an inferior relationship to that upon which it depends such that the semantic kernel of the lower-case term can only be fully appreciated in light of its connection with the ontic referent on which it depends for its meaning. This distinction is perhaps best illustrated through the actual vs. Actual distinction, wherein actuality is what is locally manifest and therefore what is most concretely 'real', which Actuality is that which is most basic and necessary, that which could not be otherwise. For more information on this, refer to the discussion section on possibility.

The model: DataLogical Metaphysics

Step 1 - An analysis of Nothingness suggests that Something must be the case

This step advances a series of arguments and assertions which contain the seed intuition, or central insight, common to most arguments for the existence of God, though the arguments presented here will be aiming to establish only that there is no possible alternative to the existence of 'something', whatever the nature of that 'something' may turn out to be. This constitutes an attempt to give an answer to the question 'why is there something rather than nothing', when it would seem that - in the absence of a god to create existence - it would be simpler for things not to be. The world is very complex, after all, and this calls out for - nay, it *demands* - an explanation. How can all this beauty and order have come to be? Surely there is some cause.

This is a sketch which seeks to establish the necessity of existence, and therefore the necessary existence of some thing - the nature of this 'something' is left unknown for the purposes of motivating this first step in our overall argument. Simply put, there is something which must be the case, some transcendental ground of Being, in order to serve as the explanation or sufficient reason for the existence of this very particular world. If there were not, why would anything exist at all? It would seem simpler for there to be nothing, not the world we observe. Why did this species of physics manifest itself, rather than any other, or none at all?

This consideration - why the physical variables which obtain in our local universe have the very specific and precise values that they do despite the fact that they could logically be otherwise - is what is known as the fine-tuning problem. It demands an explanation, and that explanation will demand an explanation, until we ultimately reach something which is explained in virtue of the impossibility of the contrary and the validity of the true dichotomy, i.e. something which is non-contingent, or necessary. This will be the Ground.

If we do not appeal to some transcendental ground, then there will ultimately always be an explanatory lacuna in our account of the world - if we postulate, for example, an infinite chain of contingencies, at no point and with no particular link in the chain will we find a reason for the existence of the chain itself. If we believe in the PSR, this lack of an explanation for a seemingly contingent fact (the chain itself) will be unacceptable, and an argument for its necessity is sorely lacking at this stage. If such an argument were advanced, we would be confronted with a basis which is non-contingent, and hence the 'infinite chain of contingencies' explanation would suddenly become redundant for our purposes. Instead, the explanatory work would be done by that which made the chain so, and we would be faced once more with a ground.

The Fine-Tuning problem will be addressed further in step 3, but for now suffice to say that the force of that problem gives us reason to doubt that physics can provision us with a theory capable of explaining itself sufficiently, and this is what occasions the initial turn towards metaphysics. There must be a Ground.

In due course, we will consider several arguments. First, we will ask what is the true nature of the true dichotomy which we are facing - that is, what is the nature of 'something' and what is the nature of 'nothing'. This means we will have to deal with the definition of nothingness and the definition of somethingness both. We will also consider whether there are any logically viable alternatives to these two options - and hence whether the question of something vs. nothing constitutes a true dichotomy. If we conclude that there are not viable alternatives, we will move on to consider whether these are both themselves concepts which seem logically possible. This part of the analysis will focus on the nature of nothingness, and we will examine two/three arguments as to the self-contradictory nature of what we will come to understand as 'true nothingness'. After this, we will consider several thought experiments which hint at the same conclusion, namely that the existence of nothingness is impossible. Let us begin.

First, we will briefly deal with the concept of 'something', and ask what it is that we mean by this. The term 'something' refers to any entity or object which exists in any way; it is the most vague and non-specific way to refer to any aspect of that which is. It can be employed within a particular context to vaguely specify an object, or it can be broader still. In the context of the question of whether there was, in the 'beginning' (so to speak) and at the foundation, Something or Nothing, 'Something' refers to the being, isness or existence of literally anything at all: it means that some circumstance obtained, that something - anything - was the case. 'Something' is one member of the true dichotomy which stands witness to the original question, namely whether the manifold existence of contingent entities is due to something, or due to nothing (i.e. not due to anything). To understand better this dichotomy we are considering, we have to closely examine this notion of 'Nothing' and ask ourselves what we mean when we invoke this term in various contexts?

The most common way in which people invoke the term 'nothing' is in a relative sense, as a way to refer to something which does exist, but is not currently present in a particular place at a particular time. In this sense we might hear someone say that their wallet is empty when asked out to dinner with friends, even though they might in actual fact have a couple of dollars in there - what they mean is that, relative to the thing which is being specified by the context, namely an amount of money which would be sufficient to go to dinner, they have 'nothing' in their wallet. What they are trying to communicate in this scenario is that the amount of money in question is absent, although that amount of money does of course exist elsewhere in the world; what is important is that because the relevant amount is not present 'here and now' (in the individual's possession), they therefore cannot go to dinner with their friends. This we will call relative nothing, and it is the first level of abstraction - it is the absence of a particular thing, which is usually specified by the context. It is a specific lack, and always refers to things which might conceivably be present, but aren't. It might be expressed by the phrase "I don't have x.", "I'm out/broke." or "I've got nothin/none.". Similarly, it's easy to see in exchanges such as "And what did you see on that Friday night?" "Nothing."

A second level of abstraction can be derived that distances us from the individual cases of absence with which we are all, on the basis of everyday experience, familiar, and moves us toward a generalization of nothing into what might be called the idea of nothingness. This is a universalization of the concept of absence, such that it becomes a rule - namely, the absence of everything. Of course, on some level we have already produced something which is self-contradictory, because by the very fact that it is a concept or an idea, the universalization is incomplete: absence is not yet absolute, because the concept of absence is nonetheless present. Insofar as the thought or idea of nothingness is itself held, the notion is contradicted by the fact of the idea which constitutes it, and it is therefore self-contradictory. It is intensely oxymoronic.

What then might Nothingness itself be though? What if we imagine the same except that the concept too is absent? Can we imagine the absence of everything, including the concept and definition of absence?

This stipulation, of a Nothingness which is so absolute as to exclude even the concept of nothingness, is what we might call 'primal' or 'true' Nothingness. It ought to be contrasted with primal or true 'Something', which must consequently be the notion of presence universalized as a fundamental principle of reality itself. We must ask ourselves, are these truly our only options, or might there be some as-yet unrecognized alternative to the apparent true dichotomy of Something vs. Nothing? At first glance, it would seem that any alternative to the pair so described would inherently fall back into one of the two options, in that any positive prospective option would constitute a variant of 'something', and in that 'nothingness' or non-existence is the only thing which could ever be excluded from a category such as 'somethingness'. As we said before, somethingness refers to the quality of isness which belongs to everything which exists in any regard whatsoever. Therefore, the notion of some alternative to the dichotomy of Somethingness vs. Nothingness seems implausible (if not downright impossible), so we should, in the absence of some counterexample, proceed as if the dichotomy is indeed true, as it appears. It's Something or It's Nothing.

Now, let us consider whether this primal Nothingness is the sort of thing which could ever truly 'be'. In effect, what we are dealing with here is the absence of absolutely everything, including absence itself. Yet, if absence is itself absent, then surely Nothingness cannot be - the absence of absence would constitute presence, would it not? On the other hand, if absence is not itself absent, then absence is not absolute. Let us imagine then that Nothingness is the absence of absolutely everything except absence itself. Thus, absence is present; the condition or state of affairs which absence constitutes is present, thus a condition or state of affairs fails to be absent. Surely, then, by virtue of the presence of absence, we do not really have absence at all? Or, let us look at it another way: let us say, for instance, that Nothingness exists. Surely, by virtue of existing, it is Something? After all, only some 'thing' can exist - non-things cannot. Thinghood is synonymous with existence, and what it is to exist is precisely to be some thing. If Nothingness exists, then, it is no longer Nothingness, because it has become its opposite! As we can see, it seems quite a self-contradictory proposition that Nothingness might exist. In fact, even to give it a definition is to contradict it, because the definition itself demands the ultimate absence of all definition, and therefore invalidates itself.

To recapitulate what has been asserted thus far: nothingness cannot exist, because to exist is to be, and to be is to be something. Nothingness, however, cannot be something without violating its essential nature, and therefore the existence of nothingness is self-contradictory. There cannot be a 'state' or 'condition' of absolute absence, because then the condition or state of absence obtains, and is not absent. Surely, the presence of absence simply collapses into the fact of presence or, in other words, the presence of something. That 'something' cannot be absence because by virtue of being present, it cannot lay claim to the nature of absence. Thus the question would necessarily become what is the nature of the something which is always present. However, to go this far may constitute getting ahead of ourselves - we have yet to consider our thought experiments which may serve to further solidy our confidence in the impossibility of the state of 'true nothingness'. A contradictory concept is not made more possible by removing the concept.

The following thought experiments will seek to demonstrate this fact, primarily via the methodology of proof by contradiction. The strongest evidence in favour of this view is certainly the analytical arguments which follow from the nature of the concept of Nothingness, yet synthetic arguments may prove helpful.

We will, for the purposes of presenting the following exercises in imagination, be ignoring the fact that the very definition of Nothingness defies its definition. Though it is not at all clear how something which, by its very nature, can have neither nature or definition, could coherently be said to be the case, or exist, we will proceed as if this was not problematic in order to discover whether or not it truly is. First, we ought to ask, what if nothingness actually were the case - what would follow from this proposition, if it were assumed to be true from the outset? We will examine a number of ‘proofs’, but it is important to remember that they are intended primarily as illustrations to guide thinking. They express lines of reasoning, not proof per se.

p1. Nothingness is

p2. If it is, then it is something, because to be is always to be something

p3. something != Nothing

c. Therefore, if Nothingness is, then Nothingness is not.

p1. Nothingness exists

p2. To exist is to be something, but nothingness is supposed to be the opposite of something

c. Thus, Nothingness cannot exist.

p1. Nothingness exists

p2. Nothingness is an absence of everything, which is the same as non-existence

p3. But non-existence cannot exist

c. Thus, Nothingness cannot exist.

p1. Nothingness is the case

p2. If it is the case, then it is true

p3. Being true means the entities and relations reported exist

p4. To exist is to be something

p5. something != Nothing

c. Hence, Nothingness is not the case (because if it is, it is its opposite, and thus it is no longer itself).

p1. There is an absolute absence (an absence of absolutely everything)

p2. Absence itself must also be absent

p3. The absence of absence gives us presence, not absence

c. Thus, absence cannot be absolute.

p1. Non-existence exists

p2. Non-existence is therefore something

p3. But non-existence was supposed to be nothing, and cannot be something without falling into contradiction

c. Non-existence is impossible.

p1. Non-existence is the case

p2. Therefore nothing is the case

p3. But non-existence was supposed to be the case

c. Non-existence cannot be the case.

p1. Non-existence is true

p2. Truth is non-existent

c. Non-existence cannot be true.

p1. Nothing is true

p2. Thus, that statement is not true

c. Therefore, something is true.

p1. Everything is false

p2. Thus, that statement is false

c. Therefore, something is true.

p1. Nothingness is true

p2. Yet truth is something

p3. Thus nothingness is something

c. Thus nothingness is not.

p1. Somethingness is not

p2. Thus, there are no things which exist

p3. There would be an ultimate absence, but even that fails to exist

p4. Thus, there is an absence of absence

p5. But an absence of absence is the same as no absence at all, which is the same again as the presence of some thing

c. There is presence; Somethingness is.

Each and every one of these examples expresses the same recognition, namely that the concept of the fundamental, primary or primal existence of Nothingness is one which is inherently self-contradictory. One might imagine that it is only the way in which it has been defined that is logically problematic, however the reality is that any attempt to give a definition for something such as Nothingness will inherently transgress against it, because the best definition would be the absence of any definition: empty air and silent space. It is far from clear how something which defies definition itself could have some further manifestation, as a real and concrete state of affairs that actually exists. Every one of those words which describes its 'being the case' is a crime against its nature, as they are each and every one a violation of its ephemereal meaning.

At this point we have established two things: first, that Nothingness is absolutely and categorically impossible, and could never 'be the case' or 'exist', because these terms in themselves contradict this notion of true or primal Nothingness. Second, we have established that Somethingness must be – as a consequence of the impossibility of any alternative state – transcendentally necessary. In other words, the Existence of Something could never have failed to obtain, and is always and in every circumstance the case, no matter what. This is DMTheory's most basic and central insight into the general nature of existence, and if this step is compelling to the reader, then it has established for him a concrete foundation upon which he can build his worldview. The strength of this intuitive commitment to the DMTheorem will be tested as we move into steps two and three, which concern the exact nature of the Somethingness which is.

Yet if any have stood fast against the attempt at persuasion, and linger still in doubt as to the legitimacy of this assertion, we can consider a more intuitive proof. This more intuitive proof, although in some ways less conclusive, is in other ways more undeniable, and it is this: here we are, in this world of ours, where all of this is really happening. Whatever in the end all of this might amount to, whether it is an illusion or a simulation, a cosmic dream or a cosmic fart, it is clear that *we are something, this is something* – we exist and therefore something simply *must* be the case. It is clear from the mere fact that we have an experience that there is not Nothingness; here we are, experiencing Something. If this is not enough to prove to you that Nothingness is impossible, at least let it suffice to establish that we must contend with Existence.

Step 2. The nature of Something: Data and Logic

That there is obviously something which is occurring, insofar as each and every individual who reads this paper has their own experience of the world, is all the evidence one should need for the thesis that there is data, for data is of course the substance that composes the phenomenological topography of the underlying world which makes possible a human reality. In other words, the very same evidence which one uses to determine that there is not in fact nothing is also evidence of the existence of data: the data of experience.

Similarly, we can consider the question of something which exists, but which lacks any consistent structure; such a thing could be described as a kind of ultimate chaos. This could either mean something whose structure was always changing, or something which had a complete lack of order and constraint - no structure at all. Obviously, neither of these characterize our experiences adequately, because our experiences are marked by striking regularities which have allowed the development of our scientific understandings. In addition to the fact that the notion of a formless/everchanging substance simply does not match experience, there are logical problems which would caution us against a commitment to such a theory regardless. If, for example, reality was characterized most essentially by change, then presumably that too might change, and staticity could and perhaps inevitably *would* emerge? On the other hand, no structure at all would seem to make anything possible, even the spontaneous manifestation of structure itself, hence its inevitability.

Of course, once some stable Logical structure has manifested itself, there is no clear reason why it would ever after cease to be, and so it can be seen that a 'structureless' substance would be just as unstable as a substance whose primary property is the ultimacy of change. This gives us an intuitive proof of the status of Logic: it is the natural counterpart to the existence of Data. Where Data is the substance of the Something which is ultimately the case, Logic is the form such substance takes. Thus we have both necessary substance and consistent structure, and this is exactly the state of affairs which is described by DataLogic. Indeed, it is precisely the nature and necessity of states of affairs themselves which is ultimately designated by the term.

To explain further what is meant by this, let us consider several skeptical hypotheses which point towards the limitations of knowledge, so that we can understand what is asserted by each of them and evaluate the implications such assertions carry. Firstly, we will examine the matrix, which is an instance on a thought experiment called the brain in a vat scenario; this is a modern iteration of what is called a simulation theory. In this scenario, one's experiences of the world are in reality the product of a computer simulated world into which one's brain is wired, with electrodes stimulating the appropriate areas of your brain in order to produce the sensations relevant to the experience which is currently being simulated. In this way, an immense epistemic barrier is generated between empirical investigation and the true nature of reality.

Hence, on this hypothesis everything one thinks one knows about the world is unreliable, because in truth it is merely knowledge about the simulated world, which may differ quite dramatically in nature from the real world which is the container of the computer upon which the simulation is being run. Yet, notice this - that world, and the computer that exists within it, must themselves actually exist in order to ground this hypothetical situation. In other words, there is a state of affairs which really does obtain, it's just not this one. What's more, it is reasonable to think that at least some of the regularities present within the structure of the simulation will be correlated with the mechanisms which are being employed to generate it.

The point of this thought experiment, however, is simply to inject a moderate dose of humility into the arm-chair philosophizing which has been the common modus operandi among privileged intellectuals throughout all of human history. The purpose of the thought experiment is to remind us that there are limits to what we can know, and that some of these limits cannot be transcended. The Matrix and Descartes' demon both serve as stark reminders that no matter what we think we know, we could be wrong.

A similar, more primitive version of the scenario than the one explored in the famous trilogy of movies is that postulated by the original skeptic, Descartes, and it concerns a malevolent god who has conceived this grand deception to mislead you about everything you think is true. This is even less scrutable than the brain-in-a-vat scenario, because there is no limit to the degree to which such a being could confound us. Yet, as before, we see that no matter what fails to be true because of the deception of this supremely powerful malevolent being, he himself must yet exist, no matter what. The same can be seen to follow of any scenario one could conceive of, and therefore the fact that some state of affairs must exist is indisputable in nature. In other words, the demon's own existence is the one thing that cannot be a product of the illusion, though his nature may be veiled from our sight. Nonetheless, we may know that there IS something, that there must always be something, because every scenario always requires this presupposition.

Something must be the case, some state of affairs must exist, and the relations described therein must obtain. Something, in other words, must be True, in order that this world can be manifest at all. Regardless of the ontological status of this particular universe, Something must ultimately be True which thus grounds all that appears to be the case. Demonic illusion or not, simulation or not: there is some Ground of Being.

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The foregoing analysis was an attempt to outline a positive argument for the existence of Somethingness rather than a negative argument against the existence of Nothingness, and insofar as it has succeeded we can see clearly that there must be some state of affairs which is ultimately the case. This state of affairs is hereon identified with DataLogic, a construct which will be specified with increasing detail as we go on.

So, what is DataLogic? Before we can understand this neologism, we must have a better understanding of the individual components, Data and Logic. Well, what then is Data? Data is non-contingent, uninterpreted information, and it is the substance of Existence, the isness or presence of Being. It is the stuff which composes absolutely anything at all, and so everything which exists must be made of this substance manifest through some structure. Logic, on the other hand, is that structural consistency which is manifest within that substance, and it concerns the context and connections which obtain between that which is absolute and everything which is entailed by its presence. Together, Data and Logic serve as the essence and form of Existence in general, as well as providing a basis for the existence of individual objects and entities like us.

Having given a preliminary clarification of the arcane formulation, the real question is, "can this 'DataLogic' really be said to be absolutely fundamental?" In order to understand the answer to this, first we will analyze whether these factors can be found in both the epistemic and ontological grounds, secondly whether a further reduction is perhaps possible, and thirdly whether these factors could possibly (in any case) be false.

When talking about the epistemic ground, it might be helpful to return to the thought of our champion of skepticism, Descartes, so that we might see what was left over at the end of his process of exhaustively doubting every single fact of his experience. Many people are familiar with the outcome of his austere thought experiment, the cogito which is the topic of so many cultural references. Of course, fewer among us are familiar with the entire argument, frequently quoting it as "cogito ergo sum; I think therefore I am". Strange that this should be the form in which it is popularly quoted, as this entirely obscures the force of the argument, which is hidden when one leaves out the first clause in the series: dubito, ergo cogito, ergo sum. That is, I doubt, therefore I think, therefore I am. The genius of this is that it was in the state of complete doubt that Descartes discovered that there was something indubitable after all: the fact that he was doubting. Of course, if he was doubting, that meant he must also be thinking, and if he was thinking, then he must exist, for he surely could not be thinking or doubting were he not 'there' in some sense. Thus, even if everything else was in doubt, he must exist – this alone seemed to him to be certainly true.

For the purposes of this paper, it suffices to simplify the assertion to one which is perhaps even more defensible, namely that there must be something which exists, necessarily, even if my concept of 'me' does not do it justice. Here is the transcendental intuition hidden within the baseline of epistemic certainty, for through the incorrigibility of the notion that I must exist, we return once more to the absolute necessity of both Data and Logic. Allow us to analyze the derivation which delivered us to the front-door of knowledge, that cogito which is so famous within our culture. "I doubt", of course, is an example of a piece of data, for what else is the assertion that one doubts than that one experiences some state of being which regards the so-called facts of experience in a negative and suspicious light? The very fact that one so regards them, however, is evidence first of all that there is data to regard, and second of all that one's mode of regarding them itself constitutes a form of data. Then, in order to derive the 'next step', one employs the term "therefore", which can only be an invocation of logic. Thus the cogito is composed of both data and logic.

As to the ontological ground, which is of course prior to the epistemic both temporally and metaphysically, it would seem that whatever is ultimately the case, it must have some kind of substance and some kind of structure in order to constitute a coherent entity or object. Yet appearances can be deceiving, and it must be left to the reader to evaluate more fully whether in fact data and logic are necessary components of 'thinghood'. For now it should suffice to say that, on the basis of a prima facie impression, these components are (or seem) equally necessary and/or present regardless of whether we are examining the epistemic ground or the ontological one. So, is it then possible to perhaps reduce beyond these elements of data and logic? What could data be composed of, except for other instances of data, other bits and pieces of substance? Similarly, what might logic be composed of, that fact of structural connection between points, which is not itself some kind of configuration or relationship? Is there anything more essential than this?

If there is, then it is beyond the reach of the author's imagination, and it will fall upon his critics to illustrate his ignorance. For the time being however, we will continue on the assumption that there is no further reduction possible, and we will ask the final and most important question: could either of these factors fail to exist or be true? In answer to this question, we will consider a series of arguments (presented through the lens of proof by contradiction) for each aspect, first Data and then Logic, and we will conclude by considering the nature of their union and the implications entailed therein. This is the real substance of the theory, and if one does not accept the following arguments, then there is no point reading any further.

Proofs for Data:

p1. Assume data is not/that there is no data

p2. Therefore observation is impossible

p3. Yet, p2 is an observation, contra p2

c. Thus data must exist, because observation is possible.

p1. There is no data

p2. p1 is an example of data

c. There is data.

p1. Data is false

p2. p1 is true

p3. p2 is data

c. Data is true.

p1. Data is absent

p2. p1 is true

p3. p2 is data

c. Data is present.

p1. ~$\exists x$ Data(x) is true

p2. '$\exists xx$ Data(x) where x = p1' is true

c. ~$\exists x$ Data(x) is false.

These all express the same insight, namely that any attempt either to assert the non-existence of data, or to deny its existence, will necessarily partake of data and so be self-defeating. The very expression of the idea that data could fail to be the case inherently relies upon the existence of data, and therefore the potential truth of the assertion is thrown into grave doubt. Of all the proofs outlined above, perhaps the most striking are the first and the last, because each identify clearly the issue involved. This issue, of course, is that to deny data, one must assume it and utilize it. Thus, to the degree that the argument succeeds, it also fails.

Consequently all these proofs could be summarized as stating that the existence of data is absolutely incorrigible, not only from a subjective perspective but even theoretically speaking, for, after all, of what might we be speaking in a theoretical manner if not data which actually does exist? Nothing else can inform our views, and there is nothing else that our predictions could ever be about, because data is all there is. At the least, the critic must be willing to grant me that, of everything that there is, and of anything that there ever could be, data must always be an aspect. It is, at bottom, as indubitable as it is irreducible.

Whatever IS or IS NOT must be defined by its state; it either IS, or it IS NOT. These states are defined logically as TRUE or FALSE. If it is assumed that the answer to the question of 'Things?' is false, then the answer must be true, as false is undeniably an example of a thing in some respect, else what would the concept of 'falsehood' refer to? Even if the thing discussed is, by its very definition, false, it is a thing nonetheless, otherwise it would lack definition. That which is fundamentally opposite to thinghood and Being cannot have a definition, thus it cannot 'be' what it was called - to call it anything, such as nothing, is to propose it is something, which is the opposite of its nature. Therefore, data must be non-contingent.

For Data not to exist is nothing less than a pure logical impossibility, for obviously any lack of data is an example of the data which can be described, and thus must exist. For 'Nothing' to exist, it must be 'something' or it does not exist, as existence is a quality which can only be afforded to an entity - or a something - and any something is decidedly '!nothing'. Therefore if nothing = true, and true = something, then 'nothing = !nothing' and thus 'nothing = true' is a paradoxical, impossible statement. Hence data must exist, because even its non-existence would also indirectly constitute the existence of data. Data cannot fail to exist, and thus it is eternally Present and/or Real. Data is the fundamental substance of Existence itself.

Logic, like data, also has an intuitively obvious proof of its existence – whatever exists or doesn't entails a situation which must inherently be governed by logical rules, otherwise it could never receive a stable designation at all, as it could spontaneously morph and shift at any time. Nothing could become something, something could become nothing, and those are only the most mundane of the transformations which might open up from within the infinite folds of a formless and limitless reality - it could even suddenly become constrained! Without logic, personal existence and the world would have absolutely no structure. Even reading the words within this paper would be a practical impossibility. Indeed, logic is fundamental to the existence we observe, and it is essential to the experience that we enjoy as subjective life forms.

Yet there are some within our society who doubt the existence of any structural regularities in nature, who believe that there is not really any such thing as Truth, and who deny that human comprehension can ever truly grasp the nature of the Existence in which we are all ensnared. Postmodernism is but one of the intellectual undercurrents which seeks to undermine the very project of rationality itself, namely to understand the world, and to displace the mystery with coherent and useful explanations of the way things are. To those who doubt the efficacy of logic, proofs of Logic may seem very absurd indeed, yet I must beg an audience with such an individual: regard my arguments as dignitaries, embassadors of an unknown land, and listen to my words with patience and respect, even if you do not understand my dialect immediately. If one is able to appreciate the way in which human beings have an utmost reliance upon the kinds of principles to which I am appealing, it will seem less strange that I should insist on their actual necessity. Of course, one might argue that such is not epistemically warranted, but I would ask what further warrant might be required which would not be similarly dubious? In other words, what other options do we have?

Regardless of what one thinks of the intuitive rationality of the existence of an objective Logical structure to the world which transcends any kind of representation we conjure up, the purpose of this paper is to explore the evidence, which is weighted in favour of various analytical proofs as to why the non-existence of structural consistency is absurd. First, however, we must elaborate upon the definition of Logic, to give the reader a clearer grasp of that which is designated by the notion of 'consistent relational structure'.

What is Logic?

The astute reader will already have noticed the key word in the definition just outlined, namely the concept of 'relativity', which is an idea about connections existing between things. These are the relations which stand between entities in order to constitute a state of affairs, rather than a mere collection of objects, and the concept of relativity is not only the basis for some of our most sophisticated theories of physics, but it is also foundational to the concept of a subjective logic in itself. For logic of course concerns the fundamental opposition between truth and falsehood, and the very nature of opposition is fundamentally an instance of relativity. Without the relationship between the opposites true and false, it is arguable that the production of logic as we understand it today would never have been possible, for why derive laws of thought if falsehood is not inherently problematic? And how can it be problematic when there is no such thing, as obviously falsehood cannot have a meaning except in relation to truth, of which it is the denial or privation.

There are a number of ways in which we might understand the notion of Logic, and each expresses and emphasizes a different aspect of its multitudinous nature, yet all add up to the picture of what is ultimately being designated. These terms are, in no particular order, consistency, relativity, structure, logic, context, condition, principle, constraint, mechanics, rule and order. For now, we will remain mostly neutral regarding these various candidates, however during the discussion portion we will cover the exact nature of logic. The following proofs, in various forms, primarily evaluate the idea by assuming that it is false and showing this to be absurd. In addition however there may be natural language arguments exploring the contradictory or counterintuitive implications of this particular way of thinking about the world at large.

Proofs of Logic:

p1. Relativity is false

p2. 'false' presupposes relativity

c. Thus relativity must be true.

p1. Relative context does not exist.

p2. Intelligibility is impossible.

p3. p2 is an example of an intelligible proposition.

c. Therefore, relative context must exist.

p1. Contradictions are true

p2. Therefore contradictions are also false

c. Thus contradiction are always false, even when they're true.

p1. "Consistency is unnecessary in nature" is true

p2. By p1, "Consistency is necessary in nature" can also be true

p3. If p2 is true, then p1 cannot be true

c. Consistency is necessary.

p1. The LNC (law of non-contradiction) is false

p2. Thus, the LNC is also true

p3. By the principle of explosion, all propositions are derivable from p1 + p2

p4. In reality, all propositions are not true

c. Therefore the LNC cannot be false, and thus consistency is ubiquitously characteristic of Reality.

p1. Structure is absent

p2. Flux is present

p3. Flux inevitably leads to order

c. The presence of structure is inevitable.

p1. Structure is absent

p2. Absence is present

p3. Absence is a type of structure

c. Structure is present.

Disclaimer: obviously one cannot truly prove logic, because any attempt to prove it will inevitably rely upon the axioms which one hopes to vindicate in order to perform its demonstration, and the results will therefore be irrevocably suspect. However, what is important here is the question of whether it is conceivable that structural consistency could have failed to be the case; moreover we will be considering whether the absence of such consistency is what we observe in our empirical investigations into Nature.

p1. All principles/rules are false

p2. p1, by virtue of being a principle/rule, is false

p3. Some rule or principle is true

c. p1 is false.

Every person knows that there are certain laws, rules of reality which govern their experiences of the world.

What is a rule? It is always something which governs or regulates what is the case. If there is no rule, then either nothing at all exists, or there is a completely constraintless something, yet in either case some thing yet reigns, namely an absence of order. This, then, is the rule in such a scenario, and we have already briefly examined where such a rule gets us. To suppose that there can be a state of affairs which is completely unconditioned is already to nominate a condition it satisfies; being free. Thus, that freedom becomes the basis of that which Is, such that freedom is what is ultimately Present. What can this mean?

To suppose that there is no rule or principle is to suggest that there are no constraints on the substance of Reality at all, that 'constraints = false' is true. Constraints being false can be understood in two ways; either it's the case that no constraints do exist, or instead it asserts that no constraints *can* exist. Either way, we have a serious problem. If no constraints can exist, we simply have a constraint (namely, one against limits), while if it is to be asserted that no constraints DO exist, then one would naturally wonder whyever not?

And this wonder is in fact borne out by our reflective reasoning, since on the weaker variation there is nothing which might stand in the way of or otherwise prevent the spontaneous manifestation of constraints, while on the stronger version of the hypothesis, we have the obvious paradox of a constraint against constraints. In each and every case that we might imagine, we would see a similar phenomenon, namely that in the attempt to define a situation in which there is no condition which holds true, the very existence of our definition itself serves as the counter-argument against the nebulous 'what' it attempts to assert.

It is plain enough to the mind of any reasonable modern individual that scientific investigation has thoroughly demonstrated that the world has a certain structure which is consistent enough to be modelled effectively enough to produce technology that actually works. This incredibly functional technology is in fact a vindication of the model, and it serves as a testament to the objective existence of the structural facts which are described within the model. Plus, it is hard to see how a universe can exist at all in the absence of the kinds of structural relationships which are a part of the most basic level of description. It is not just the parts, but the connections between them, that makes up the whole. Hence no matter how deep into the abstraction of data you go, that abstraction is always a function of the Actual structure of the Data which Is.

Totally apart from the wealth of logical and empirical evidence that there is such a thing as Logic, none of which relies on the personal experience of an individual, there are a plethora of proofs to furnish within that realm also. Experience testifies pretty clearly to some overarching structural regularities, and this is most clearly visible in our capacity to understand what is going on in the environment. If there were not connections between the various pieces of data which make up the discretely manifest world of things, we would not be capable of connecting them up in a way which functioned to produce real understanding.

But what of the link between Data and Logic themselves - what relation do *they* have, and what fruit does their union yield? Can we now explore more deeply the nature of their connection with one another? After all, the central concept of this theory is not just that these elements exist, but that they are each irreducible and both inseparable from the other. More than this, we ought to see, as we might in step three, how this supposedly essential formula for the nature of existence results in our particular world. How do we, as they say, find ourselves amidst the madness? What does all this abstruse abstract theorizing have to do with us?

DataLogic is an attempt to describe the nature of Existence as such, and consequently it is composed of two interdependent elements each of which are equally necessary. The term designates a general formula for Being consisting of substance and structure, or essence and form, which together compose the essential and irreducible basis of the object of existence. That there must be a fundamental Isness which is necessarily combined with a certain relational form is a fact which resonates throughout all understanding, and the existence of multiplicity, especially of polarity, is proof enough that relativity is deeply tied up with the nature of the world. The obviousness of the presence of Data, the incorrigibility of it, and the transcendent status of Logic as both implication and internal emanation of 'the one'; these facts are simply undeniable. Yet what confirms the existence of DataLogic more than anything else is the intuitive plausibility of each of its foundational axioms and the piercing simplicity of the solution it proposes. All facts testify to the Reality of a DataLogical ground, and each and every one can be seen to be entailed by It, if it is indeed the Truth.

There are one or two difficulties left to consider before we consider this topic closed and move on to the question of what the implications of such a system are. The first is the question of whether it is possible that one of these aspects of Existence is more primary than the other. This would concern the question of whether either can exist without the other, and if so, which of the two is capable of independent existence.

Data seems the obvious candidate for something primary, as this is the aspect of Existence which is explicitly designated as 'non-contingent'. Yet, it seems impossible that Data can cause Logic to exist, since causes are already always structural in nature. Nor does it seem plausible that Logic could fail to exist, for how can a substance exist except by taking some form? The form which it takes would seem to be essential to its capacity for being manifest. Perhaps Logic could be our candidate for a primary substance then? Except, of course, Logic is not a substance, but requires a substance in order to materialize, just as shape in general requires some substance (at minimum, line) to exist. Data perhaps could be derived from Logic, but it is implausible that Data should ever fail to exist, because by definition it is necessary. Thus, it cannot be the case that Data derives from Logic, and, as derivation presupposes logic, the opposite is false also.

Considering the unacceptability of the foregoing hypotheses about the priority of one or the other of the apparently essential elements, what are we left with as far as our theory goes? It would seem that thinghood is composed of dual aspects, a unity made up of two parts which are also wholes that contain their complements, much like the ancient image of the yin-yang, a symbol known as the Taijitu. Just as this ancient image suggests, both aspects are necessary as part of the larger whole which is reality, and the structure which defines them extends fractally inwards, carving up the world into opposites all of which somehow come together to form a harmonious whole. Data and Logic appear at every level of analysis, forming both the basis and the signature of the world which we exist within, not to mention the being that it manifests as, that same individual who calls himself by your very own name. For are you not Being itself?

Is it then even remotely conceivable that a thing - some object or entity - could exist yet fail to have either of these aspects? Could there be something which really 'is', which is actually true and manifestly exists, which is genuinely the case, yet which nonetheless has a composition which lacks either Data or Logic? Is that question even meaningful in the absence of certain assumptions, namely that 'data' and 'logic' both exist and are useful as concepts? What indeed could concepts even be based on, if not for the existence of data and logic? Down the rabbithole goes, endlessly asking and answering and asking again, until one tires of the loop and admits: both must always be true. There is in fact no conceivable alternative to DataLogic.

If we accept what has been put forth so far, one step yet remains in our analysis of this theory: we must ask what are the implications of this formulation regarding the nature of Existence, and how does our own rainbow-flavoured reality fit into this seemingly binary schema? There has been a lot of talk about Being, and not much about the only universe we have access to – this one. How did we get from There to here?

Step 3 - The Derivation of Specificity

Here we return to one of the questions which initially prompted our inquiry, the curiosity which is made most acute in the fine-tuning problem. This is the puzzle of how it came to be the case that the variables of physics have the very precise values that they do, when other values would have been equally possible. In other words: why does this specific world exist, when some other world might have been the case instead? Here, we must rely on some extension of the fundamental commitments we have already outlined, namely the existence of Data and Logic. So, what are the implications we might draw out of humble DataLogic?

First, let us try to analyze that to which we have committed ourselves. Data is non-contingent uninterpreted information, and Logic is consistent relational structure. What do these two things constitute as one undivided whole? It must be something which is absolutely necessary, some fundamental substance, with some essential form. What therefore seems clear is that we have committed ourselves to the existence of Data which is both logically possible and Actually exists, where what we mean by Actual is that it exists without exception or condition. This Data must have a certain structure, a morphology defined by relations or connections of consistency. Through this we can imagine that there is something which is contextually relative to the absolute Data, a type of data which is logically possible but not Actually existent. Thus, if there is Actual and absolute Data, then there is a Logical counterpart to that Data - theoretical data.

This theoretical data, defined as the realm of potentiality, is a necessary entailment of Actuality because possibility is the internal structure of the Absolute. It constitutes the extension of Actuality into the realm of abstraction, and within the realm of abstraction - within the domain of 'what could be' - is where we find our own unique world. Obviously, our own world is one of the logically possible worlds, otherwise it could never have been the case to begin with. Yet, what evidence do we really have that this world and this world alone is uniquely the case? How would we distinguish between potentially existing within a potential world, and concretely existing within an actual one? Perhaps the way we typically use the terms 'actual' and 'real' refers to the scope within which we are instantiated, and so cannot be relied upon to orient our ontological analyses because such always reflects only what is local. What if – there were an infinity of worlds?

To make the proposition more clear, perhaps the concept which is invoked by 'actual' is an indexical, similar to the terms 'I' and 'me'. The meaning of these is fixed, of course, but the reference varies depending on the subject who invokes them. Similarly, it would seem plausible that 'reality' simply designates that corner of Existence in which you personally happen to be manifest, and 'actual' in this context would thus refer to what is concretely accessible via one's own locality - what is present in the 'here and now' that is constituted by the experiential constraints of an individual life form. But what do the properties of concreteness and connectedness tell us, bereft of qualia? Such a query naturally entails a turn towards the preconditions of locality, the Actual and the Real. Where actuality is locality, Actuality is the non-contingent ground of Being; where reality is the local environment, Reality is Isness itself.

Let us take a moment to go over what has been asserted, because this step is admittedly the most technically complex of the triad of assertions which compose the core of the theory. First of all, we said that Actuality is the ground of possibility, and that it in turn entails the specific manifestations of so-called 'actuality', which are really just locality in disguise. This notion of locality involves the contextualization of possibility in relation to the Absolute by way of individuation, because a locality is always a contingency which logically could be otherwise. In other words, a locality is a specific way Existence as such could be, but Actually isn't. Yet the fact that it could be means it is an aspect of Existence, because it is an instance of possibility, and possibility of course is entailed by Actuality. The generality of Isness entails potentiality, and this organically blossoms into a multiplicity of specificities. Absolute Actuality implies potential Actuality and potential Actuality entails specific possibilities being actual. This is one such possible world.

Perhaps this step is difficult to follow, in that the reasoning might be thought to be opaque, or the approach rather oblique especially considering the magnitude of what this final step tries to show. For without this step, the solution is incomplete in a rather embarrassing way, for what use is a metaphysics which cannot explain the only world we have access to – this one. If one cannot follow this final step, or finds that the logic fails to compel them to follow, then the entire solution might well be in big trouble.

In fact, the proposition is not as complicated as it may have been made to appear initially. It is as follows: Existence is eternal, and consists of a multiverse of logically possible universes. Within the multiverse, there is one world which is identical with our world; this is the world in which we exist. In other words, the world in which we 'actually' exist is a possible world which exists as a natural extension of Absolute objectivity. This notion of course raises many more questions than it answers, but at least we might be able to conceptualize how the transcendental foundation postulated within this paper can be seen to logically entail the existence of this particular world. But how would you even know if your existence was merely potential?

Perhaps even more importantly - what difference would it actually make if it turned out to be true that this world was just one of an infinite number of logically possible worlds, each of which was just as real as this one? We might have an intuition here that if something isn't real in the sense of being uniquely manifest to us, then it doesn't count, however on second thought this seems rather close-minded. Surely we should not rule out a priori the possibility that there are areas of Existence which we have no epistemic access to?

And, as to what difference it would make, it would seem that the only answer is to say that there would be at one and the same time no difference at all and all the difference in the world, for the difference between a potential world and its being actual is just that the latter really is, while the former is not! Yet what in the end does this amount to except a reiteration of the initial conviction that what is locally observable is the limit of what really exists? Is there some way to make sense of actuality which does not beg the question?

Let us imagine that actuality is, as we have said, simply an indexical that refers to the locally observable environment and the entities manifest therein. This way of thinking does not in principle rule out the existence of other logically possible worlds, as long as their existence is somehow 'elsewhere'. Now, let us imagine that one of these worlds is different from all the others in that it alone 'Actually' exists. What is this special sauce which the 'Actual' world has which distinguishes it from other 'merely possible' worlds, and what qualitative difference would the presence of that special sauce make to one's 'actual experience'.

We might experience a strong intuition that there must be some difference, however it is unclear what informs this feeling, especially since its validity relies on an additional assumption, namely that the difference between mere possibility and actuality would be equally discernable to an actual person and a possible one. Ignoring that for now, however, it seems that we must find some anchor for our intuition in the form of an articulable quality which would set a real world apart from one which was merely possible. Yet, surely all qualities in a possible world are exactly as they would be if that world were uniquely actual, and to a potential person contained therein they would therefore be indistinguishable? For to exist within any world is just to take that plane of being as all there is – as Reality as such. Locality IS reality to us.

A possible world, to its possible inhabitants, is the most real thing there is; there can be no doubt that it seems concrete and actual to them. This is why it is common practice to refer to the world one experiences as one's own 'reality'. There is however always something more fundamental, no matter how unquestionable 'base reality' can appear at times (whether one takes that to mean phenomenal or physical reality). There is something which is transcendentally necessary, some ground of Being which accounts for every thing that ever was, is, will be or could be. There is an essence of Existence, and it is the eternal verity of DataLogic. Only DataLogic can serve as the basis for everything else which is manifest, for only It is non-contingent.

Discussion:

Disclaimer: The reader should only continue reading beyond this point if they found most or all of the steps outlined above compelling. If however you found this derivation wanting, reading further will likely be worthless to you, because what follows is a brief examination of the potential implications of the view so far described. Due to concerns about length, certain issues will receive an insufficient treatment in the following analysis. For a comprehensive investigation of the ideas involved and a more complete discussion of their implications, refer to the forthcoming work, DMTheory: Explored, which will be published in book form within a year of the publication of this original work.

The Story So Far: Via Negativa

Note: For anyone who has no interest in how such a theory came to be, this section can be skipped without doing any violence to one's overall comprehension of the concepts.

Intellectual maturity means learning to accept the world as it comes, and involves having the patience to know that those contradictions which trouble us so much right now will work themselves out in the end, if we but keep at it. Moral maturity on the other hand concerns the capacity to recognize how and when it is our place to change the world, so as to leave it a better place than we found it. Life is full of opposites, and we must inevitably be the vessel for the catalytic solution which brings about their reconciliation, because it is our destiny to find our fate as the bridge between polarities, that crucial connection between sheer cliffs, balancing precariously over the rushing river of life. For too long the pendulum has swung back and forth between science and superstition, religion and spirituality. The human soul is perpetually oscillating between these poles, and consequently it cries out for balance. For far too long, polarity has mastered man; the time has now come for man to become a master of duality, an avatar of balance. This is one of the reasons I have written this paper - to help man along his way.

But man is a creature who is ever seeking to simplify existence, to reduce the world to a reliable formula that stabilizes and contextualizes his experiences, marginalizing anything 'irrelevant' and othering everything problematic. Thus he is a bard by nature because he likes to capture the critical regularities of his phenomenal world in well-told tales. However he is no fool, and so he tells very different stories depending on the domain of life about which he is asked to speak. Such different styles of story ought to be evaluated differently, but often enough these days they are tossed into one and the same basket and evaluated according to norms which are proper only to one style of analysis, namely scientific discourse. Consequently when a man is obsessed with certain species of philosophical questions, often his curiosities are devalued and neglected by society.

It should be clear enough at this point that what I am putting forward within this paper is no scientific theory, but rather seeks a fabric of nature even deeper than that which science could ever penetrate, because what I aim to understand is how physics itself came to exist at all. Since however there is no way for one to gain access to the deepest and most absolute nature of reality by scientific means, it would be understandable if there were a curiosity around how someone could come up with such a theory, when none have succeeded throughout history in formulating such a concise and coherent analysis of Existence. Throughout what follows, I intend to address this curiosity to some degree. What ought to be noted from the outset however is that this is a story about the derivation of a metaphysical theory, and so a strictly scientific mindset might hinder understanding.

Well then - how did this story begin? I have committed to leave out a full account until the publication of DMTheory: Explored/Unlocked, but I think a shallow treatment is pertinent for those who are interested in learning the backstory to the development of this momentous idea. It started, as it happens, with a curious orientation of the mind: via negativa it came. What do I mean by this, you might wonder? In the months that led up to the beginning of the journey that brought me to DMTheory, I was extremely depressed and had been subject to suicidal ideation for many months. I was experiencing an ongoing existential crisis that caused me to neglect everything materially relevant in my life and to focus entirely on queer questions like the meaning of life and whether we can ever really know anything to be true at all. My major puzzle was: how come there are things?

But 'via negativa', a phrase which I am employing in a special sense of my own design, doesn't refer to the negative existential orientation of suicidality, although for me this methodology *was* related to that impetus towards ending, Death himself, who comes as a constant companion to deep depression. You see, although I was resolutely convinced that my life was a tragedy which wouldn't get better any time soon, and that the best thing would just be to end it all, I had great friends in my life who argued with me day and night in an attempt to convince me that taking my own life so soon was a mistake, and that I should continue giving life a chance, because it might yet turn around for me. But in my depressive obsession with philosophy I was convinced I had concrete evidence that life was meaningless, not just for me but for everyone. They were just in denial, I said.

I will spare you a reproduction of my proofs, which to my credit did make some sense, because what is important here is that I felt I had a good reason to think that I would always be dissatisfied with life, because there was no ultimate point or purpose to it, and therefore I felt that there was no point in continuing if I was not having a good time doing so. Since I have always been an atheist, the conclusion that Existence was meaningless and purposeless was natural and intuitive; these concepts are subjective attributions, and in the absence of some ultimate subject, I reasoned that there could be no objective meaning or purpose to existence. I was very confident in my proofs, however my friends remained unconvinced, and consequently I decided that I would perform a comprehensive analysis of existence in order to demonstrate that there was nothing I was leaving out, and that therefore my decision to end my own life was unimpeachable. In other words, I decided to try to prove that life was meaningless and that suicide was therefore not only logical, but absolutely inevitable for those of us who are willing to face the music, so to speak. I set out to disprove life, and what do you think I found? Well, it was something unexpected.

'Via negativa' refers to a paradoxical manner of coming to believe in the truth of some idea, proposition, entity or phenomenon. More specifically, it describes the process of setting out to disprove something only to be thereby confronted by substantial evidence which supports the existence of the thing you sought to prove wrong. Throughout this period of existential angst and emotional turbulence, my philosophical forays were a kind of respite from the storm, because they promised the possibility of making sense of this chaotic mess. My friends and I initially discovered and practiced the dialectic as a hobby and a pastime, a sort of curiosity to amuse ourselves, yet for me it morphed into something more serious and, eventually, a force which would save my life. First, however, I had to puzzle over how I came to be here to begin with. How was it that anything existed at all?

You see, in trying to justify my own suicide I felt I already had the answer to the question of Why? - namely, there is no reason why, because a purpose is the sort of thing which can only be attributed by a subject, and therefore in the absence of some ultimate subject such a notion as objective meaning is thoroughly impossible. Since I already knew the answer to the question of 'why', I figured that I would explore the question of existence via the various other frames that I knew of, namely 'who', 'what', when', 'where' and 'how'. These questions I tried to pursue through both a subjective and an objective lens, so as to compare and contrast the results, and a few of the questions presented relatively trivial answers - 'where?' (here), 'when' (now), etc. The questions which turned out to be the most curious were those of 'What' and 'How' existence is. It was here that curiosity took root.

Although the question of 'What?' would eventually become the central question to which I would attempt to provide an answer in DMTheory, ultimately the question of 'How?' was the one which captivated my attention. More specifically, I would continuously return to the question of how it can be that there is something rather than nothing, considering that nothingness would seem, prima facie, to be far simpler than the complex world with which we are confronted. It seemed baffling that there should be anything at all, much less the incredibly specific world in which we observe ourselves to exist, because there would seem to be no reason why such a complicated thing should have come to be. This feeling of absurdity was made all the more acute because, as an atheist, it seemed that there really could be no answer to the question - as far as science was concerned, things just were the case.

Of course, I couldn't complete my 'comprehensive' analysis of existence until I had got to the bottom of how it can be that there is anything at all, much less a meaningless yet extraordinarily specific intricate something, and therefore I was compelled to pursue the question of why there was not nothing. In order to do so, I had to get clear on just what it was that I meant by 'nothing', and this part of the analysis stretched over months due to how difficult it is to pin down the concept of nothingness with a satisfactory linguistic description. The difficulty naturally arises from the fact that any attempt to give a definition is already to contradict what the definition goes on to assert, because nothingness refers to the concept of the absence of everything, and the presence of the definition immediately serves as an exception to the rule. Hence there is a kind of puzzle around nothingness.

This puzzle concerns how one could successfully analyze a notion such as this, given that every attempt to outline a definition already goes against the outline which is given. My own analysis of nothingness showed that this didn't seem to be a merely linguistic difficulty; there really seemed to be no way to imagine or conceive of nothingness at all, because by virtue of there being any kind of representation, ultimate absence was thereby violated. Of course, there is no way to know whether this is just a quirk of linguistic analysis, but my intuition is that the epistemic caution is insufficient to warrant our refusal to draw conclusions from the foregoing analysis. More specifically, the mere possibility that logic and language may turn out not to be applicable to the 'real world' is insufficient to justify doubting them since they have reliably served our purposes in the past, not to mention the fact that we have literally no other option when it comes to trying to understand our experiences. There is no reason for us to deviate from the logical basis of our analyses now, although we ought to acknowledge their limitations in order to maintain our integrity. Thus, nothing can come from nothing - as far as we know, that is.

Although in theory this could fail to be true, in practice it is unreasonable to genuinely think that it is false, because an extended analysis of Nothingness always shows it to be inherently contradictory and therefore impossible. Consequently Somethingness is necessary, and the question naturally becomes: what is the nature of that which necessarily exists? This affirmative movement within the theorem is justified almost entirely by the potentially dubious linguistic analysis, however it is obviously also significantly buttressed by the fact that the world manifests itself to us as a manifold Isness, and Nothingness is the farthest thing we could imagine from what we actually experience. Hence the non-existence of non-existence is testified to by the everyday existence of both the observer and the ten thousand things. We all experience Somethingness, every hour of every day.

Consequently the epistemic limitations mentioned earlier and recapitulated in the essay CoM ultimately fail to give us sufficient grounds to doubt the impossibility of Nothingness, and in light of the best available evidence the truth of that conclusion seems utterly inevitable. Hence it seems we are left with the affirmation that Somethingness must be the case, and indeed this was what I was left to ponder at one point during my own tortuous trip undertaken as part of my quest to seek out the Truth. More specifically, I was bewildered by the fact that it strangely seemed as if I had actually found that which I fully expected to be utterly absent: something which was necessarily the case, something that could serve as a reason for everything which exists. '*Intriguing*,' I thought to myself, '- but what is the nature of this Somethingness which Is?' In other words, what really is Reality?

In trying to understand this enigma, I naturally returned to the ground zero of epistemology, Descartes' cogito. I wondered, 'what are the fundamental elements of this inferential structure?', since this seemed to be the most concrete and certain point from which I could begin my analysis of the nature of that Somethingness which was indubitably the case. My thought was that by exposing the hidden assumptions upon which this derivation was predicated, I would be able to progress my search for the foundational axioms of Existence itself. I did not initially think that the exact assumptions I thereby extracted from this famous piece of reasoning would go on to become the basis of an entire metaphysical theory, but once I had identified that the cogito relied on both data and logic, it was only a short stroll to the moment when I began to wonder if Data and Logic might be foundational to ontology.

Strangely, by examining the basis of subjectivity, I had discovered something which went far beyond mere subjectivity - it seemed, and still seems, that the basic notions which are presupposed by the cogito are the same elements which could not fail to be true, and which are therefore eternal aspects of thinghood itself. The eternal existence of Data and Logic is something which is necessitated by the impossibility of the contrary; the fact that there are no logically viable alternatives to the existence of Something necessarily means that there is always Something. This Something which is necessarily the case can be analyzed into the parts of Data and Logic, but neither of these parts can ever be missing. In other words, the generalization of the cogito leads to the conclusion of the necessary existence of Something, but the question remains what that Something is. By observing that the perspectives from which we ponder these mysteries necessarily rely upon certain presuppositions, I saw it might be possible to glimpse the fundamental fabric of Being. In exploring the presuppositions which are required in order to articulate the most sound epistemic basis we have, I discovered two axioms which seemed irreducible.

Hence it struck me that it might in fact be the case that in reality neither of these axioms could possibly be false, and that they could thereby serve as the foundational formula for Existence as such. Thus the revelation of the nature of DataLogic was manifest to my mind, and the implications of the necessary duality of thinghood were made plain to my intellect. What shone clearer than anything else was that the two combined to create a unity, a monism, just like in the yin-yang where opposites combine to form the dynamic reality of the Tao. And indeed the dynamism of the reality which was thereby implied was equally as obvious as the staticity of its basis, evoking many ancient disputes about the ultimate nature of Being. Yet no matter what stance you take it always remains true that the world is not one or the other, but it is both at once and something over-and-above either opposite.

This is because Reality itself, Truth itself, is that which unifies opposites and combines poles; it is the coin of which there are two sides. Those two sides are opposites, yet both co-exist as aspects of the whole, which is higher than either heads or tails and therefore contextualizes each as entities which are both necessary to the unity that is the coin itself. It is a strange sort of relationship that opposites have, where they contradict one another and yet cannot live without the other, because in the absence of their partner they lose all definition. Thus it is with actuality and potentiality, and hence the absolute entails a mysterious multiverse consisting of all possible worlds in order to provide the necessary context to stabilize it in its exceptionless necessity. That which is absolutely the case requires a relative context, a realm of manifold contingency and potentiality, all of which is real; this is what is intended by 'The Theoretic' - that which is logically possible but not absolutely existent in base Reality.

These logically possible worlds remain mere possibilities unless they manifest instances of subjectivity which are able to experience them *as if* they were actually and absolutely real. This experiencing of the possibility amounts to realizing it, actualizing it and comprehending it, and here we see our first connections with entelechy, the notion which I would later identify with the meaning of life. This 'entelechy' naturally entails that we would come to know about it and expand upon its themes, articulating and exploring the realization of potential as a resonant archetype which inherently supports the flourishing of life. Hence it makes sense that, at some point along the way, the fractal nature of reality would be encapsulated in a linguistic formula. What is less obvious is whether it would be recognized for what it was, once it had been articulated. That, after all, is what we're here to find out.

It has been eons, and millions of men have tried their hand with the sword in the stone which is the question of the meaning of existence. In some ways, the fact that we have gone so long without an answer predisposes us to doubt one when it appears, because we may by now have given up hope that such a thing might in fact exist. In fact, it is probably true that the correct answer has already been identified a hundred times over, but that it exists in a fragmentary form only, and therefore awaits an individual who is able to synthesize it into a coherent solution. Yet many individuals within modern culture genuinely believe it is plausible that there really is no answer because the very notion of 'truth' is supposedly one which is socially constructed. This suspicion is embodied in the ideological traditions of postmodernism and relativism, which we will explore in the section on theories of truth.

Let us review the course that has been charted by the gradual articulation of this revolutionary hypothesis about the nature of reality. This view was derived via negativa back in 2016 - eight years ago - and the original paper was published, or pseudo-published, at the beginning of 2017. It received very little attention, and next to no peer review, because it was garbled and unprofessional to say the least. Yet the idea persisted, and persists.

Despite the fact that my attempt at formalizing the idea had confused more people than it had enlightened, I felt that I had really struck gold with this framework. It didn't really matter to me that the original paper was a bit of a trainwreck, because the idea was dynamite, and the more I discussed it with other people, the more sure I felt that what I had discovered was genuinely something to be wondered at. Every single person that I explained the idea to, after the appropriate amount of discourse, would tell me that it 'really made a lot of sense' and that, although they might not necessarily agree, they couldn't see where they might disagree. Over the years since I originally conceived of the idea and refined it through the dialectical exchange of intellectual fruit with my good friend Nanoscholar, a.k.a Chris, it has only become more refined and more clearly expressed - nothing essential changed.

The core idea remains identical to that which was proposed in the 'fever-dream' of a paper that was the original exposition of DMTheory. It is a testament to the extraordinary intelligibility of the core concepts that throughout all that discussion, there has never yet been a good reason to make an alteration to the basic formulation of the central hypothesis. And although some mention that they do not necessarily agree, this is typically because of prior commitments to some other thesis on the matter, not because they can identify some flaw in the reasoning which is on offer. What's more, the better part of the people to whom I have explained this idea over the years have not expressed doubt at all, but rather have wondered either at how much thought must have gone into my derivation, or at how simple the solution seems to be. Many are compelled by the thesis, and say as much to me.

And it is not as if I have failed to put the idea forward in the arena of intellectualism, as it were, because I actually run a large debating server on the social media platform called Discord, and there I have discussed this idea innumerable times. While it is true that it has not been formally reviewed by academics as of yet, I would offer as a response that this is the purpose of the project which you are reading now, and that the previous paper would not have met the standards required for a fair showing of due diligence. In fact, this project has been in the works for a number of years, because I have long known that the original formulation leaves something to be desired, to put it lightly, and that the idea would benefit greatly from some TLC. Luckily, over the past year or two I have managed to compress the extracted value of hundreds of conversations into less than a hundred pages, thank god.

Mercifully, this work is complete at last and I can finally rest assured that my first and perhaps my best idea has finally received a lucid representation in a format and manner which befits its depth, rather than forever remaining an artefact of my existential anxieties. Now that this work has been made available in a digestible and comprehensible form, I feel confident that it will begin to proliferate and take root in the minds of other thinkers, beginning a life of its own through them. This of course is only natural, and I do not begrudge interpretations of these ideas which do not vibe with my own. I ask only that you tell me what you figure out too, 'cause I'm curious.

The Necessity of a Necessary Ground: The Great Chain of Being

One might ask, 'why need we posit some transcendental ground of being, rather than simply accepting the existence of the universe as a brute fact, or (more popularly) as a contingency grounded step-wise in each prior link of an infinite chain?' An amusing example of this theory is the anecdote about a conversation where a participant asserts that the world rests on the back of an elephant, which stands on the back of a giant turtle. Naturally, one feels impelled to ask: but what holds up the turtle, however the comically fatuous and infamous response is that 'it is turtles all the way down'. The intuition that this is not a permissible move is ubiquitous, and it is an objection which is often voiced through the term 'infinite regression'. The idea is that such an explanation is in some way logically problematic. In defence of this intuition, we will examine several historical arguments.

"Suppose Anne has no sugar, and needs some. She can borrow a bag of sugar from Breanna. Now Anne has a bag of sugar. Where did it come from? Easy—it came from Breanna, who is now a bag of sugar down. But suppose Breanna borrowed a bag of sugar from Craig in order to then pass it on to Anne. Where did Anne's bag of sugar come from then? Ultimately, from Craig, who ends up a bag of sugar down. But suppose Craig borrowed a bag of sugar from Devi … and so on, ad infinitum. Then where did the bag of sugar come from? At the end of the infinite sequence, Anne is one bag of sugar up, and nobody is a bag of sugar down, for everyone after Anne simply borrowed a bag of sugar, and then passed it on to the next person in the chain. There's an extra bag of sugar in the system that seems to have appeared as if by magic. If there is a finite sequence of borrowers, however long, then the last person in the chain ends up a bag of sugar down, so that's where the bag of sugar that ends up with Anne ultimately comes from. But if the chain never ends, Anne ends up with a bag of sugar that doesn't seem to have come from anybody, as nobody has lost any bags of sugar—they all just borrowed it to pass it on. The infinite regress seems to create sugar from nowhere: pleasant, perhaps, but metaphysically suspicious all the same." - **SEP**

This 'metaphysically suspicious' aspect of the prior example can be distilled in the following way: although each link in the chain may have its existence justified by virtue of the previous link, at no point will we arrive at anything which can serve to justify the existence of the chain itself. Consequently, although the movement of the sugar is explained at each link of the chain, at no link do we acquire an explanation of how the extra bag of sugar came to be present within the system. Another analogy might make this connection plain; imagine that you are a sniper who has eyes-on your target, but you need authorization from your commanding officer in order to fire the critical shot. Before you pull the trigger, you radio in to your immediate superior in the chain of command, but before he can authorize your shot he needs to check in with his commanding officer, and so on, ad infinitum. In this situation, does the shot ever get taken? It is plausible to think it does not, as the authorization is never quite acquired.

Similarly, with respect to the great chain of being, it is plausible that the existence of each link in the chain can never quite manage to justify the existence of things in general, because there are always more links to come whose existence is yet to be validated by links even further into the past or the great beyond. Although the theory of dependence of more complex things upon simpler things is merely plausible, it remains incontrovertible that certain more primitive entities or facts must be truly primitive, i.e. foundational in nature. In the absence of such a supposition, the existence and composition of all objects calls out for explanation in much the same way as the infinite chain of grounding seems to itself stand in need of a ground. The necessity of a Ground is apparent in the intuitive unacceptability of any infinite regression of causes or contingencies, especially in the case of things in general, and this intuition can be articulated through our analogies. In the absence of some necessary ground, it is vexing how the enigmatic phenomenon of existence could ever get off the ground to begin with - what ground indeed would there be to get off? How can we accept an infinite regression of ontological dependency when it seems plain that in the final analysis this amounts to no explanation at all, just a recursive promissory note.

It seems clear that there is a causal chain which stretches backwards through time from which the divergent threads of the world all originate - the picture of the genetic tree of life comes to mind. The question is not whether there is such a chain, but whether such a chain could conceivably be infinite, or whether it rather terminates somewhere. Everyone accepts the reality of contingencies; they are a fact of everyday life. What is more controversial is the existence of non-contingency, something which we have no direct experience with. Most people, however, will find that they already bear theoretical intuitions which entail a commitment to a necessary ground; they just don't know it. If however one considers the analogical arguments presented above, it should quickly become plain that an infinite regression is in many ways anathema to logical reasoning. After all, imagine if someone borrowed a bag of sugar from us, and kept reassuring us that there was a bag of sugar coming down the line, it was just that the line was infinitely long! Surely we would be struck that the bag of sugar was, in fact, never coming, and that we had been swindled. Why diverge from that intuition for a question of ontology?

The Object, The Subject and The Unity of Being

It is widely accepted that two major theoretical virtues are unification of disparate phenomena and simplicity in explanatory posits. The commonplace ambition to find a theory which is capable of unifying the fundamental forces of physics (a Grand Unified Theory) is an example of this intuition at work in scientists, and among philosophers there is an even more esoteric search for a theory of everything. There is, however, a powerful undercurrent in modern thought which encourages us to doubt any intuition which we cannot spell out in formalism or verify empirically, and some even seek to extend this to the notion of unity itself. The thought is that the preference for unity is somehow unjustified, merely aesthetic. Yet the very notions of generalization and of abstraction, and the profound utility obtained thereby, give us reason to pause and consider that perhaps our impulse to unify is the fruit of some evolutionary process which we do not as yet comprehend. Certainly to many of us it seems 'right' and 'fitting' that theories should unify, partly because this is in fact the trend of successful scientific theories and partly because we carry a pre-theoretical intuition that this is somehow critical, because the world is really one.

Parsimony, however, receives a glowing recommendation from philosophers everywhere, and there are many reasons why this is so. First and foremost - for practical reasons - is the observation that the less assumptions one makes in their theory, the less chances there are for them to be wrong about the way the world is. Therefore, in general, we should prefer theories with fewer assumptions, because doing so reduces the probability that we will be wrong, roughly speaking. Yet in addition to this eminently utilitarian consideration, a theory with fewer operative entities seems to do the job better because it is more cognitively efficient, and might be preferable on these grounds alone. What's more, unity and parsimony seem to go together, since a move towards systematic simplification is always a trend towards unity, and true unity would ipso facto mean a simplistic ontology.

These two commitments can be observed operating in every field of scientific inquiry; to varying degrees, to be sure, yet always present. Parsimony especially is an unstated premise of all scientific practice, and the warrant of this premise is confirmed not only when simpler models turn out to work better, but also when successful inductive generalizations about laws of nature guide us in predictions which turn out to be accurate representations of the as-yet unrealized future. That parsimony is thereby a theoretical virtue would seem to stand in little need of justification in light of the fact that parsimonious theories tend to be the ones which result in technological innovative strategies that actually work. It is no coincidence that simplicity and utility display a strong correlation.

The manifest success of scientific theories in unifying apparently disparate phenomena, not to mention their innate compatibility and interdependency with other sciences, stands as a testament to the ultimately unified nature of the world. It seems very much as if higher levels of complexity stand in a dependency relation to lower levels, and that they plausibly could not exist without the participation of those components, just as our bodies could not function if not for the independent functioning of organs, cells, neurons, and the like. Yet we, like reality, appear to be unified into a cohesive whole. More importantly, however, it appears that the complex emergent phenomena underlying biological organisms arises from simpler and more unified principles. Physical phenomena provide the backdrop against which chemical compounds emerge, and the interplay between these two produces biological life.

This broad yet implicit commitment to the unity of being is countervailed by two obvious points, the second of which is just a special case of the first. The first obvious problem with the theory that existence is fundamentally unified is the phenomenal fact of difference in the world, i.e. the manifest reality of distinctions between things, the simple 'given' that I am different to you, and that we are both different from a rock or a salad. Or, to take it to a more technical level, there is a difference between the proton, the neutron and the electron, and each plays a different role in the atom, so they cannot fundamentally be the same thing - can they? The second problem with the theory has now been alluded to in my first example, but allow me to make it explicit: you and I are simply fundamentally different kinds of entities to rocks, because a rock is a mere object, yet you and I are considered instances of subjectivity. Thus an attempt to countenance the unity of existence will require us to come up against the tension that exists between two of our most deeply seated intuitions, each of which holds incredible sway in our cognitive kingdom, yet both of which are essentially contrary to one another in nature.

On the one hand, our most immediate reality is given in the objects of experience, and these are what we have knowledge by acquaintance of. We never really have any kind of access to the world which avoids or manages to escape being mediated in one way or another by subjectivity. On the other hand, we insistently posit an external world and assign to its entities and facts a higher priority than the mental pictures which are generated by way of observation through the senses. Yet the tension between these two poles is dwarfed by that which is generated when we bring to mind once more the intuition of unity, which cannot abide by this categorical separation we have projected. In response some might be motivated to dismiss the intuition of unity, and indeed this might be the way to go. After all, it seems that a lot stands against it, and not much has been said so far in favour of it.

Subjectivity of course is our first port of call, and it is in some sense our only port of call, because each of us is a subjective creature and our primary evidentiary stream consists in our first-person experiences of the world. This however is a notoriously unreliable phenomenon, as the extreme variability in eye-witness testimony shows. We experience objects and entities, including other people, only insofar as they are received through our sense organs and they are correspondingly construed by our peculiarly human organism in a manner which is congenial to our neurological facilities. Much of what it is to be human is to perceive in a certain way, seeing colour, feeling texture, hearing sound, experiencing love and empathy and joy and sadness. Subjectivity denotes a kind of experience, yet implicit in that notion is the idea that there is an 'of' which is left unspecified. That is, experience never stands alone, but is always 'experience-of' something else, be that sunshine, fruit, a winter chill or your own body.

It is the 'of' which brings us neatly around to objectivity, conceived to be the opposite of subjectivity - or in other words exactly and only that which is mind-independent and therefore has no 'experience' to speak of. This is why we think ourselves difference to rocks and planets and storms and waves, because we alone know what it is like to exist. Of course, there are the animals and, to a lesser degree, the plants, but typically humankind is slow to recognize the complex self-consciousness which is likely possessed by other life forms. What we all hold firm on, however, is that there is a class of 'things' which simply has no subjectivity to speak of, and in fact most of us are firm believers that the 'real' or 'true' reality is ultimately made up of objects such as these, while what we see with our eyes is a kind of clever conjecture of our brain. Hence we will readily accept that objects which appear solid are really mostly empty space, and that the earth moves around the sun even though the sun is the thing that seems to move. This is because we accept that the brain can construe things falsely, which implicitly admits of objectivity. Our very concepts of true and false presuppose that there is some way the world really is, separate from anything we might think of it or perceive about it. We routinely elevate objective facts above subjective perception. The belief that the goal of scientific models is to map objectivity justifies our subordination of subjects.

Science attempts to emulate objectivity by employing processes and procedures which mitigate or eliminate the risk of interference posed by subjective biases and errors. The intent of this is to remove confounding factors that might disturb our ability to measure the nature of the world accurately and precisely. As we already noted, implicit in such notions is the presupposition that there is in fact such a thing as an objective reality, something which grounds our subjectivity. And in fact science itself also tells us that subjectivity is complex and derivative of simpler elements which pre-existed the inception and evolution of life. So, at least as far as physics and chemistry go, it would seem that the world pre-existed consciousness and subjectivity, by a substantial margin. Hence objectivity must be more primary than subjectivity, else subjectivity would never come to be. In fact, scientific data conclusively indicates that the existence of the mind-independent realm of physics long preceded life as we know it. There is a surprising among of concordance among our various models of the world, and they all agree in this.

This hypothesis is therefore endorsed by a variety of facts, including the apparent age of the universe, the age of the earth, the theory of evolution and the fossil record, as well as countless others. For many, the recognition of the ontological primacy of objectivity occasions the notion of a thing-in-itself, an idea which has an extensive history in philosophical thought. In fact, this 'thing-in-itself' is exactly what DataLogic claims to be, and therefore it is an instructive exercise to examine the nature of this notion of objectivity. In short, it is the idea that the world does not depend on our minds to exist, but rather our minds depend on the existence of the world. However, the thing-in-itself is a true enigma, and some have argued that we cannot have any knowledge of it (the noumena) whatsoever, but can only know the world of appearance (phenomena). This is because the gap between objectivity as such and subjectivity is thought by some to be so great that nothing can truly bridge it. Science obviously disagrees, and rather convincingly might I add. Yet the approach of science is to promote objectivity in the sense of curtailing the influence of subjectivity over the variables of the experiments. Might this extend to metaphysics?

At every step we come back up against the same basic-seeming truth, namely that we are subjects and the world is somehow made up of objects. It would seem that this distinction is impervious to critique, at least as far as creatures such as we are concerned. Yet, is it really plausible that reality exhibits this bipolar nature, subject and object, or might there be another explanation? Objectivity seems a good place to start, since we seem to privilege it over our subjective perceptions if and when they clash. What is objectivity? It's mind-independent reality, right? But what does that really mean, mind-independent reality? Isn't it just a mind imagining a world in which minds didn't exist? And yet, the mind is figured in the imagining? What's more, the real world isn't like the mental picture, because in the real world, minds do exist. In other words, objectivity contains subjectivity - and obviously this is so; after all, here we are. Therefore, subjectivity is an objective phenomenon, and we can accordingly discover that it is made up of bits and bobs, mechanics and functions, which operate in a way that does not depend upon our subjectivity, but rather generates it. Our scientific understanding of reality may seem at odds with our usual intuitions, yet there is a way in which they fit together, if we would but care to find it. The incongruence is in fact entirely a matter of appearance which could be dispelled by the slightest breeze of curiosity. What is objectivity?

Objectivity, or 'mind-independence', is, in a sense, a delusion, for there is no mind-independent reality - reality is populated with minds, and we ourselves are evidence. We do not stand apart from the world, but exist within it. So the world in fact has no 'mind-independent' state, but rather objectivity and subjectivity are somehow connected. But perhaps delusion is too harsh; instead, objectivity can be conceived of as a mental fiction, and a damn useful one at that. In fact, the brain can be plausibly conceived as a device for producing such useful fictions, which are just those mental constructions which somehow make contact with fundamental truths about Reality. Just what this 'contact' consists in will be a topic explored more thoroughly in the next section, but for now it might suffice to say it consists in agreement or correspondence. When mental fictions harmonize with the actual acoustics of the world, a strange thing happens, which is that although they are not quite true, they still work.

More specifically, it consists in the match between certain contours of one's conceptual mapping and the corresponding structure of the real world. This match of course is facilitated by the fact that both relata are ultimately of a piece with one another, being different aspects of the same fundamental unity. Not all aspects are created equal, however, and consequently it does indeed seem that subjectivity stands in a dependency relation to objectivity. This is the same assumption around which the theory in this paper is built, namely that there is some object-of-existence the true nature of which is totally independent of anything we conceive, perceive, propose or believe about it. What's more, this document attempts to outline the ways in which the existence of all things can be traced back to the transcendental ground of Being: the root of subjectivity and objectivity both. Perhaps, then, our initial thoughts about unity can still be salvaged, if it can be made more salient just what this unity consists in.

It should be noted that time is a context in which objectivity and subjectivity might appear to come apart, and this is part of what justifies the belief that objectivity is ontologically primary. They seem to come apart in that there was a time that objectivity was all there was, and there will come a time when it is all there is again. Yet on the b-theory of time, as we shall see, the becoming and passing-away of subjectivity doesn't invalidate its existence - as long as it exists at some point in the timeline, then it always exists equally as much as the timeline itself does. It is however a fact that subjectivity (of our calibre at least) is ontologically dependent upon objectivity in a way that objectivity does not depend on it. Yet all the same, objectivity and subjectivity are, from an objective point of view, both necessary, if not equally necessary. What is typically important to the concept of objectivity is not the complete absence of all minds, but rather that the mind-external world is, in some important sense, 'more real' than the perceptual world of experience. In other words, the concept is that our (subjective) minds are derivative themselves of objectivity as such - whatever that turns out to be. And this seems to be a fairly sober-minded intuition as far as they go, because we depend upon a great many facts which are not - at least as far as we can tell - alive. This is how we make sense of the notion that objectivity came 'first', and subjectivity came second.

As mentioned already, our world is a maze of causal chains, and therefore has an ephemeral yet extravagant variety of phenomena. My supposition, and I think it is one many people share, is that this knot of chains is like so many branching streams, or perhaps it is rather more like the literal branches of a tree - in either case it is the river and the trunk which ultimately give them life. In other words, my thought is that these individual causal chains all diverge from the great chain of being at one historical moment or another, as layers of complexity emerge from the aggregation of simpler interactions. Thus it is that once physics has stewed for a sufficient amount of time, chemical bonds become possible and chemistry is born as an emergent property of matter.

More time passes and various chemical structures are formed through both cosmic and planetary forces until, one day, a primitive chemical loop is zapped by lightning (or something of this sort occurs - the exact details are less important than the conceivability of the general picture) and suddenly, life is born. Biology, of course, is just chemical soup with an electricity-powered ghost in the machine, cell interactions being exclusively electrochemical, and our bodies being both built of and having evolved from cells. And so it goes, with cascading fields of study of ever increasing complexity emerging organically from surprisingly simple beginnings over a sufficient amount of time. Each new layer of emergent phenomena is ultimately derivative of and emerges from the layers beneath.

This is part of what occasions Metaphysical inquiry to begin with: the recognition that more complex, higher-order entities and interactions appear to proceed from and build upon lower and more fundamental entities, which are comparatively simpler. First we ask the most natural question for creatures such as we - what is the nature of motion? Once we have analyzed motion to a sufficient degree, we will have extracted a small number of principles which govern all motion, and these principles will constitute the beginning of physics. Yet we could equally ask what principles govern our principles having the nature that they do, when divergent principles could equally have obtained. Hence we are asking, in effect, what is the physics of physics - what are the principles which govern the form taken by the principles which govern motion. And, you can imagine, this process can be continued ad infinitum, but presumably the buck will have to stop somewhere, as we found in our earlier examination of causal chains and the necessity of a necessary ground. At some point, we will ground out in principles which are necessarily true.

It would seem that once you have a model of the principles which govern some phenomena, there is an additional question generated, namely why the principles are such as they are, rather than some other way. In many cases our scientific understanding admits of this kind of explanation in terms of more primary forms of science, as for example in the situation where questions about psychology might be referred to cognitive science, which is in turn derivative of neurology, which depends on physiology, which depends on biology, and so on. However, at some point we are asked what makes the foundation science (physics, say) just so, and in this instance science can have nothing of significance to say, because what is being asked is an extra-scientific question, if science is understood empirically. We are asking, at this point, more fundamental questions about the nature of existence itself and why it is such that this particular world exists rather than any other. Yet since the phenomena which are entailed by the notion of subjectivity can be understood as being ultimately derivative of these more fundamental mechanics which pre-exist the inception of life, the logical inference would seem to be that subjectivity is dependent upon objectivity, but also entailed by it. Life is an expression of existence - just as the ocean 'waves', so the universe 'peoples', as Alan Watts puts it. The mortal coil and the great chain of being are opposite ends of the same rope, composed of two intertwining snakes, one black and one white: objectivity and observer, in an eternal dance.

Here is where we approach the true nature of the unity of being, which is exactly that pictured in the Yin-Yang symbol, namely the higher order resolution of seeming opposites into two sides of the same coin. That each opposite features as a fragmentary aspect of the other hints at this fundamental holism, that all of Existence is fundamentally unified in virtue of all things being connected by the structure of reality. This is the same structure that through science we are able to distinguish into different levels of phenomena, isolating certain variables in order to categorize and study the comings and goings of the existential ephemera. Thus it is that subjectivity is ultimately dependent upon objectivity and therefore is in a sense contingent, and yet the contingency in question is inherently entailed by non-contingency, aka necessity. It would seem that, although one is fundamental and primary and the other ontologically derivative, both are in the final analysis necessary, and consequently if we are given one we are thereby given the other. This amounts to a brief statement of modal realism/necessitarianism.

A more general solution to the central objection to unity - the existence of difference - suggests itself at this point, given what has been established about the derivative nature of subjectivity. This solution is that the objective world is not, in fact, split up into bits and pieces, but the mind splits it up in order to make sense of it, by fixating on individual aspects of the unity, parts, and isolating them from the whole. This is what produces the appearance of difference, the presumption of the mind that the world can be split up into parts. Luckily for us, this assumption holds - so long as the mind commits to the mighty task of putting the world back together again, that is. The world admits of the mind's proclivity to analyze, because the structure of the world is a holographic masterpiece composed of layers of complexity which vary dramatically in local environments but have a surprising homogeneity at scale. Difference is a consequence of focusing only on the local, only on the variation, and failing to acknowledge the connections with the general and the categorical which underpin the particular. There is a deep fractal order to reality which the mind cannot bear to grapple with; it must simplify and break the world apart in order to perceive it, and then attempt, brick by brick, to put it back together. We retain the intuition, however, that All is One. In fact, this intuition is embodied in the dream of reason, which always was to re-integrate reality.

From this perhaps an intermediary position can be proposed, one wherein difference is something conceived as internal to unity, and overshadowed by it, yet nonetheless an extension of that very same fact. If indeed the cosmos is a unitary whole, ultimately undivided, then we might wonder what the world would look like to us if it were possible to perceive it without engaging in the automatic mental process of discrimination. My suspicion is that primitive man did in fact perceive the world like this, and that the object-subject distinction was therefore a cognitive innovation of unparalleled significance. If this is true, it is plausible that prior to that innovation, man existed in a state of immersion with a world which was everywhere as much subject as object, an undifferentiated drama fully alive with meaning and virtue - saturated with significance. It is difficult to imagine just what this would be like, but it seems fair to say that it would be an alien world, utterly unlike anything we have ever known.

In an existence where everything is One, every object and every person is thus both inner and outer at once, and here we find the ancient origins of the alchemical saying that "As above, so below". Of course, this plainly means that the same laws which govern the movements of the planets govern affairs on earth too, but there is a more subtle message that many people misunderstand or simply fail to perceive. This message is that the outer is ultimately just an extension of the inner, and the inner ultimately just an extension of the outer, because both are one and the same in Truth. Yet we moderns can barely hear the resonance of this saying, so hypnotized are we by the incredible advances made possible by the primacy afforded to the distinction between the subject and the object. This is why the unity of being is sometimes thought today to be some kind of mere affectation, an aesthetic preference perhaps, or a comically misguided intuition. Yet the profundity of the notion of unity far outshines the lights of any mere skepticism. That all is one recurs and echoes throughout all philosophy, time and time again.

In the foregoing we have come up against several ancient disputes which may colour how a particular reader interprets what has been put forward. These age-old debates, such as that of the one vs. the many, idealism vs. realism and of course objectivity vs. subjectivity each serve to map out different perspectives of a shared problem space, namely that which corresponds to the mysterious nature of an existence which somehow supports such polarities without dissolution. Ultimately, this paper expresses commitments primarily to unity, to realism and to objectivity, although it should be clear by now that this doesn't leave the alternatives out of account. Rather, what is sought here is an expression of the order of priority relevant both to an accurate ontology as well as a satisfactory explanatory account of the nature of existence and its interlocking puzzles and paradoxes.

The significance of these affirmations is threefold. First and foremost, we are given the logical scaffolding upon which we will build an integrative theory of truth in the next section of the discussion. This theory of truth will consolidate the various aims of truth-talk and contextualize each project with respect to the anchor of objectivity. The second implication of the above remarks is that we are given an excellent justification for the derivative nature of logic by way of an evolutionary coupling between our subjective models of the object and its True nature, whereby our mental faculties are able to create conceptual pictures which somehow map onto structural regularities in Reality itself. This coupling is a theoretical requirement for explaining the fitness which is conferred upon the human organism through the bearing of such maps of the world, and such a requirement provides a robust warrant for the link between Logic and logic. The reason logic is derivative of Logic is thus because it was evolutionarily necessary that we were able to predict what would happen next with a better than chance rate of success, because animals which could perform such predictions were able to adapt to the emergencies sooner and therefore had a higher rate of surviving to ensure the propagation of their genetic information. In other words, brains evolved to map regularities in reality because brains that did that survived better and thus accrued fitness.

Finally, along these same lines, the above provides evidence in support of the theory of truth which will be proposed in the next section, because if the subject is inherently anchored within and derivative of the object, it would makes sense that 'truth' as a property of propositions would consist in tracing the structure of the object of existence and articulating the connection which is thereby established between subjective propositions and objective states of affairs. For all three implications, we have but one originating hypothesis, namely that objectivity and subjectivity are mental fictions which help us to make sense of the nature of experience by splitting up the unity into bits and pieces. These bits and pieces are then used to build up a picture of the world as it was before the mind interfered, and if successful such models create real traction on the nature of the world because accurate descriptions create points of contact which can be used to grant footholds on reality. The details of this proposal will be clarified shortly, however for the time being what ought to be emphasized is that at every turn it seems that object and subject, so far from being opposites in the traditional sense, are in fact intertwined.

And this, remember, is what occasioned our comparison of this conceptual architecture to the yin-yang, and it is also why that imagery is so prominent in the graphics and diagrams which are associated with DMTheory. It is the strange yet profoundly resonant nature of the recursive coincidentia oppositorum which appears in the symbolism that so aptly expresses the relationship between Data and Logic, and the interplay between object and subject. It is like the ouroboros, the snake that eats its own tail; as you trace the cosmic round, you find that object and subject are of a piece, both aspects of a larger whole, neither truly superior because both equally necessary. In fact, it may well turn out that there are worlds within worlds, and that objectivity and subjectivity feed into one another in an endless cascade of realities of ever increasing definition and drama! In the end, however, what cannot be forgotten is that the subject and the object are truly just perspectives on the same thing, that transcendental Ground of Being which entails both objectivity and subjectivity, like an endless set of Russian dolls.

This recognition - that subject and object are only separate in the mind's eye, and that in 'objective reality', so to speak, there is no such separation - is the key to unlocking the mysteries of the universe, because it allows us to make use of this most powerful of distinctions for conceptual clarity in our claims without blinkering ourselves as to the true nature of Reality. What's more, understanding that both are ultimately one allows a more profound examination of the inter-relationship between these two different sides of the same coin. Difference is ultimately internal to the unity of Being, and yet it is indispensable to the intellectual comprehension of creatures such as we.

Let us continue on and explore more comprehensively the implications of this analysis for the nature of Truth. If however this talk of unity and between the subject and the object has you vexed, or somewhat perplexed, rest assured that help is at hand. I would refer the curious reader to the appendices where one might find a collection of diagrams which show in an intuitive fashion the exact relationship between the different aspects of the Object of Existence. Such a diagram is useful to keep in mind as we delve into the next section of the discussion.

Theories of Truth

What is truth? Obviously, anyone who has read this far will by now be acquainted with the distinction between Daddy Truth and baby truth, however in this section we will be examining the nature of logic in its connection both to Truth and our explanatory ambitions as a species, as well as exploring the nature of correspondence and utility. We will then critique all of the relevant theories of truth and introduce our integrating notion to produce a composite theory which has components from each of the competitors. Before that however, we must offer a brief defence of the thesis which has been assumed throughout this paper, namely that Truth does actually exist.

First, we will dispatch the deflationary perspective - it is intellectually bankrupt on the subject anyway and therefore has nothing of value to offer - and then we will consider the different variations on this same intuition, that 'truth' doesn't really mean anything special after all, being (on several of these views) just a way to prop up a particular way of seeing the world, equal to any other. This will lead us into the study of logic, after which we will go on to examine the various pragmatic theories in order to ascertain what we can learn about truth from them. We will subsequently dive into correspondence proper and contextualize the remaining theories of truth in connection with our exploration on correspondence. Once we have touched on each of the different schools of thought vis-à-vis truth, we will attempt to knit these supposedly contradictory perspectives back together, so as to reveal the way in which they compose a cohesive whole. This whole will ultimately find an anchor in Truth itself, the object of Existence as such. Thus, the logic of our solution will continually lead us back to this primordial presupposition, and it is on this notion of Truth that our analysis will ultimately stand or fall. What will it be?

It is needful to declare that the solution which will here be pursued locates the correspondence theory as the lynch-pin upon which all else depends when it comes to the property of 'truth'. This is the notion of truth which is perhaps most intuitive and commonplace among the laity, and it is the one against which all the others are set up. It has however been quite widely criticized on various accounts, not least among which is that it is too ambitious, assuming too much and depending on the supposition of an unknowable external world in order to secure science and therefore knowledge. This connection with a noumenal thing-in-itself has given it an unsavoury mystical colouration or flavour which many thinkers prefer to distance themselves from. Hence it has been questioned whether the concept of truth is really as meaningful or substantial as it has been historically made out to be.

There are even those within the philosophical literature who outright deny that any genuine 'theory' of truth can be formulated, as truth is supposedly not a substantive concept at all. This way of approaching truth has often been described as 'deflationary' or 'disquotational', typically involving an account wherein truth plays no important role in discourse except to offer a convenient method of generalization or signalling credibility. In order to better understand the distinctions which obtain between the various ways of thinking about truth, it is important to recognize that truth-theorists are often implicitly guided by subtly different questions which then go on to condition the results they ultimately arrive at and endorse. The question always defines the answer one finds.

According to the SEP, there are three major projects pursued by various thinkers in this field, each of which examines a different dimension of the concept of truth. The first and perhaps most common project is called the 'metaphysical' or 'essence' project, and it concerns the attempt to identify the necessary and sufficient conditions for 'what it is for a statement to be true'. The second project is known as the 'justification' project, and it attempts to specify 'some characteristic, possessed by most true statements, by reference to which the probable truth or falsity of the statement can be judged'. This often takes the form of giving a criterion of truth that can be used to determine whether a given statement is true. Finally, the 'speech-act' project addresses the question of 'what are we doing when we make utterances' that 'ascribe truth to some statement?'. Unfortunately, truth-theorists have not always been clear on which project they are pursuing, which can lead to confusion about what counts as a successful or complete theory of truth. It can also lead to truth-theorists talking past each other when they are elaborating upon distinct projects with different standards and criteria of success. We will avoid such confusions.

For the purposes of the following discussion, we should like to consolidate the justification project and the speech act project, since it would seem that identifying a criterion for judging the probable truth of a statement amounts to identifying the criteria we impose upon the responsible assertion of that proposition. In other words, it would seem that identifying the criteria for judging a proposition to be true would necessarily lead to insight concerning the conditions under which the assertion of the statement would be permissible. Additionally, the question of justification plainly has a prominent communicative dimension, in that one typically justifies one's claims *to others*. Consequently, the assimilation of the justification project into the speech act project leaves us with just two projects, namely the metaphysical or 'essence' project and the speech act project. My personal suspicion is that this division carves at the joints of our concept of truth, and will serve us well in the analysis which is yet to come. The resonance between this distinction and the earlier one between Truth and truth should be apparent.

Now, it seems clear that the deflationary theories of truth, if they can even rightly be called such, are focused exclusively on the speech act project, and seem wilfully blind to the other (arguably more important) project. As egregious as this is, we need not even bother with it to see the problem with the deflationary theory. For let us suppose that the speech act of ascribing truth to propositions is all that we are concerned with. Even on this approach, deflationism about truth immediately strikes the intellect as inadequate, as it seems to fail in its exhaustion of the various natural language situations in which people invoke the concept of truth. To put this point more plainly, it seems that people mean more by the attribution of truth than it is possible to account for on the deflationary theory. In addition, the deflationary 'theory' really does nothing at all to clarify the obvious motivating intuition of truth-theories, namely that there is something substantial and interesting about 'truth'.

On the deflationary view, the concept of truth is something which is not deserving of a heavyweight theory, because there is simply nothing much to it! Yet it seems that when we speak of truth, what we are speaking about has the character of something far more formidable than a linguistic shortcut for generalization. Generalization is indeed part of truth, but truth is typically understood as denoting something about reality, the way things really are. Do we really have cause to doubt that there is some such way that things 'really' are? Some thinkers are unequivocal that we not only have reason to doubt this notion, but that there is nothing in favour of it either. Perhaps true is just a way of signalling the 'scientific bona fides' of a certain theory or model? But what good are scientific credentials if the model is not true? Yet is not this the notion under consideration, namely, the nature of truth? If true means 'the way things really are', then the question just becomes 'is there such a way after all?'

On the supposed legitimacy of the concept of 'Truth'

There is a prominent intellectual undercurrent within western culture which has been manifesting over the last 50 to 100 years, mainly consisting of various forms of relativism as well as its more sinister cousin, postmodernism. Relativism has a habit of reducing the interpretation of the world to a kind of free artistic license in which there are no correct answers, because all answers are valid from the perspectives which constructed them. It involves a circumscription of reality based upon the person who is performing the judgement, or the culture they exist within, in order to render the world as a battleground of wills struggling to animate different pictures (of what?), none of which have any kind of priority except that which is the consequence of cultural circumstance. What thus has priority is just one's own situation - for another their specific situation - and according to a relativistic theory each picture is equally true and yet neither is really true at all (if we understand truth to signify something which is perspective invariant). For if truth is taken to mean something which is objective and therefore independent of dispositions, on this view there is arguably no such thing, only relative truth, various as ever. And does it not seem deeply counterintuitive that every man should have his own 'truth', each equally as valid as the next?

Postmodernism, however, takes this more explicitly to the conclusion that there really is no such thing as an 'actual' way things are, or any 'objective truth', but rather concepts such as 'truth' and 'objectivity' are thought always to be socially conditioned such that they are suspect and do not represent what they claim to. More specifically, postmodernism involves a rejection or at least suspicion of grand narratives in general, and objectivity and truth are first in line. These terms are thought to be a kind of sleight of hand employed by those who hold positions of intellectual prestige and social influence to propagate their own values and ideas. This is like a more sophisticated variety of the thesis that 'might makes right' - concepts of 'truth' and 'objectivity' are thought to be nothing more than the methods by which the elite opinion is imposed. What is important about the postmodern view however is that the very notion of 'objective Truth' is a 'grand narrative' in which we supposedly have no reason to believe, and therefore it licenses, in a much more radical way than relativism ever could, a kind of subversion of anything and everything, because nothing is fundamental or absolute and thus everything can be deconstructed. In other words, if we regard even in our most basic epistemic foundations as being in some way compromised or corrupted by sociocultural influences, then science and truth both begin to lose any meaning. Where before they marked out accurate representations of the world which could be relied upon in the activity of navigation and innovation, now they become a kind of magician's illusion, a way of seeing which is imposed on us.

What both of these views share in common is that they thoroughly undermine the concept of objective Truth, and therefore weaken our connection with reality. This is compensated by a corresponding strengthening in the flexibility of our thought and the reach of our imagination, yet it costs us a certain kind of rigour in our reasoning, since losing sight of the extra-linguistic reference of 'the world' means we ultimately end up lost in a maze of mirrors. The body might continue to function well enough, but the ability to truly contribute to human wisdom will be stunted by one's refusal to countenance the simple fact that there must be something which is absolutely True.

It seems fairly undeniable for example that science maps certain structural regularities which genuinely exist in the fabric of our local reality, for in the absence of such a supposition it is not clear how we could account for the remarkable effectiveness with which science, and science alone, functions. If not for the 'mapping regularities which really are there' hypothesis, why should it be the case that only a very tiny subset of models actually works?

By this I mean to pose two questions: (1) why are we able to employ scientific models in generating very precise predictions that turn out to be reliably accurate? and (2) how come we are able to use the very same models to construct technology which actually functions and allows us to generate tangible traction in relation to our environment? This rapid generation of immeasurable utility for which science is primarily responsible suggests quite strongly that our models are actually matching up with consistencies in the fabric of Nature. Through this successful mapping between models and targeted aspects of the mind-independent world, it is possible for us to create technologies that are functionally effective in producing the outcome for which they were designed. If one doubts that there is such a thing as Truth, it is difficult to see how science could possibly be productive.

More specifically, it is difficult to see why there would be a certain subset of models (namely, those we call scientific) which are extraordinarily effective in predicting the behaviour of the world and generating control over said behaviour, while all other models produce little to no tangible benefit. Surely if there is no objective Truth, then truth is just a function of accurately describing phenomenological experience; yet in that case, it should be possible to hallucinate that you are flying and actually end up flying - if that is your truth, after all, then what is stopping it from being manifest? Inter-subjective consensus only helps us if we are to suppose that such a consensus is anchored in a shared reality, otherwise we face the same problem. We could just as easily ask why the world didn't turn out to be the centre of the universe, given that for a time everyone believed that it was?

Ultimately, a worldview which refuses to countenance anything beyond phenomenal reality itself will never be able to give a satisfactory account of what utility consists in, because in the absence of such a commitment to the external world there is in fact no reason why some models should work more effectively than others. It becomes a brute fact that phenomenal reality simply acts in such and such a fashion, and the possibility of providing some kind of explanation of why it should do so becomes relatively remote. If we deny or doubt that there is such a thing as Truth, we end up in a bind wherein our very practices of rationality become groundless and unwarranted. Yet in some circles it is considered the height of rationality to undermine reason itself, to cast doubt upon its very capacity to produce *anything* which can actually be considered genuine truth. To me, this is a mild form of insanity.

I consider it self-evident that a view which doubts the existence of objectivity and Truth is one which has great potential to stunt the intellectual growth of our species, and therefore I push back against this conception with fervour. While the perspective of postmodernism and the practice of deconstruction are useful analytical tools, I think it is critical that they are put in their place and I think this is just the theory to do it. There really is some concrete and absolute Ground from which everything that exists derives, and it has objectively real structural consistencies which are what make science possible to begin with. If there were not an objective Logic to the world, then subjective logic would not confer fitness, and we would not be able to use it to reason about the world so well that we are able to send people to the moon, and robots to Mars. Our ability not only to control natural phenomena, but to harness it in order to conscript its energies for our own purposes speaks very clearly to the undeniable reality of Truth. It is only by conforming our minds to the world that we are able to ensure that what happens in the world conforms to our mind. We do indeed stand in a reciprocal relationship with reality, however it is not a relationship of equality; everything we are, every truth we know and everything we do depends on Truth.

Our subjective systems of logic are, one and all, derivative of the structural regularities of the fundamental Reality which Actually exists. This is not only a sensible intuition to have, but it is in fact the only explanation available for how it can be the case that we are able to map reality well enough to create technology which functions, and it is simply unquestionable that we do perform such mappings. Is there a better or more functional way of thinking about a scientific theory than as a map of the world? It is evident that conceiving of scientific theories as maps of phenomenal reality is, from the beginning, a misguided affair. Phenomenal reality is never self-explanatory. It is only because we have some grounding in Truth that we exist at all, not to mention that we are capable of cognizing the fact of our own existence and articulating a description of it which is sufficiently felicitous to create traction upon reality. This traction upon reality is produced by models which are true, i.e. those which correspond.

'With what do they supposedly correspond?', one might ask. With the Logic of Reality, with Truth in general, and more specifically with some subset of the factual features of the mind-independent nature of reality. It is the Logic inherent in the nature of things which our models of logical analysis attempt to approximate, and to great effect. As a consequence of the fact that Truth and Logic are so intimately intertwined, it seems pertinent to digress into a more extended analysis of Logic and logic both. Once we come up for air, we will be ready for Theories of Truth.

The nature of logic and the logic of explanation

Due to the fact that 'objective structural regularities' is a rather vague idea, it might be necessary initially to address that which we have knowledge by acquaintance of, namely propositional/sentential logic, especially as it is understood by the lay person and the scientist alike. Hence we must consider the question of the purpose of logic, or that for which it is useful. Therefore, we must explore the benefits of reasoning as well as the relation in which logic stands to reason. Finally, we will analyze the nature of explanation, and seek to give an explanation for the most basic intuition of all, the PSR. This will then be contextualized in relation to logic, reason and, finally, truth.

Classical logic, the basis of the analytical tradition, is a formalization of certain intuitions that are central to reason in combination with a number of inference rules that have been observed to preserve truth from premises to conclusion. The aforementioned intuitions include the laws of thought, which are foundational rules that guide 'correct reasoning', where reasoning is an attempt to model the world in a way which corresponds with the state of affairs that actually obtains. Thus logic is the study of reliable reasoning, and so it includes principles which go far beyond the laws of thought, axioms which are arguably not even directly derivative of them. In other words, logic helps us to understand the world successfully, to model what is happening and what might happen effectively enough to provide a benefit to the survivability of our genes. The study of logic therefore involves the various principles and axiomatic systems which one can utilize in the aid of judgement when navigating logical space.

The study of logic concerns rules which are conducive to the preservation of any truth which is found within the premises of an argument throughout the derivation of the conclusion. Yet it is not merely limited to this alone, but encompasses practices related to explanation as well, whereby we attempt to give an intelligible account of why or how something is the case - what made it so, as well as how it came to be in just that particular way in which it obtains. Natural philosophy begins as a penetrating search for explanations for the things we observe, and naturally there are many plausible explanations one might propose. Logic therefore arises as part of our attempt to sort out which of these explanations is correct, or at least which is the most justifiable in terms of belief. Yet prior to the formal development of logic there stands a deeper commitment, the commitment to explanation itself.

Philosophy begins in wonder. To wonder is to seek an explanation, and a presupposition of that desire is that explanation is possible, i.e. that things which occur have reasons why they do. To provide a reason for an observable phenomenon is to postulate some thesis which, if true, eliminates some or all of the mystery in what is observed. All things have reasons. This is the intuition behind the PSR, which in the strongest sense is a principle that says that for everything which is the case, for everything which is true, and for everything which occurs, there is some reason or fact that is sufficient to make it so. This principle is the central premise of the very dream of reason, and it applies to almost every true proposition which can be named. The nearly unlimited reach which the PSR has can be glimpsed by reference to the most common species of the principle, namely causality. Yet there remains a small class of propositions which are apparently not 'made so' by other things which are true.

This class of propositions are called necessary truths, and included are all things which are true by definition - everything which cannot fail to be true. In fact, there is some controversy among philosophers as to whether the PSR applies to necessary truths, because some conceive of all such truths as conditionless, i.e. as brute facts. A brute fact is something for which there just is no further reason or explanation; it just is the case. Yet it seems that many necessary truths can be explained in terms of reasons which make them so. Hence we explain the truth of 2 + 2 = 4 by virtue of the definitions of the terms and operators involved in the equation, and similarly we would explain the necessary truth of the proposition that 'all bachelors are unmarried' by appeal to the definition. This appeal, taken at face value, seems to invoke the law of identity at least, if not the other two laws as well; at any rate, what seems clear is that, *given logic*, such statements are necessarily true, and *otherwise*, **they are not**.

If, for example, we did not have the law of non-contradiction, then it is unclear why 2 + 2 = 4 would be a necessary truth, when it could equally be false that 2 + 2 = 4 at one and the same time, with our original proposition none the worse for wear. Nor, indeed, is it clear what the assertions given above (which are essentially tautologous) could even be taken to express, if we are not taking the law of identity itself as an axiom par excellence. The very notion of necessary truth itself has meaning only in relation to a system of logic which can make sense of truth and falsehood both. Hence it would seem that the best explanation of this puzzle would have to be that the truths listed above appear conditionless and are thought to be so purely on account of the fact that the conditions upon which they depend are never false in any situation, because they determine the paradigm of possibility itself. Logical constants such as these would surely appear invariant and might very well seem to be conditionless simply because one can imagine no conditions under which they could be false.

Thus a more reasonable interpretation of their invariance is that the meaning of 'necessary truth' is that which is true in all possible worlds. In other words, it is not contingent upon the specific nature of this universe, but is rather part of the general framework which would allow for the manifestation of any world at all. For what could the notion 'possible world' mean except a logically possible world? Yet if necessary truths are propositions which are true in every possible world, surely they are true in virtue of the reality of logic, and therefore the conditions which they satisfy are those of logicality itself. Hence these necessary truths are derivative of the laws of logic, while the laws of logic seem to stand by themselves, in a different class. The laws of logic are obviously necessary truths, because they could not fail to be true in any situation, but they are not necessary truths made true by more foundational necessary truths; rather, these truths appear to express something about the deep nature of reality. In other words, the basic axiomata of logic are subjective reflections of the deepest principles of order which are observable in Nature. The laws of logic are not mere constructions, but refer to and correspond with principles that are constitutive of Reality itself, factors so ubiquitous and absolute that they could never be false.

The laws of logic are therefore (arguably) the only plausible candidate for brute facts, although I prefer the terminology of 'foundational necessary truths'. These brute facts are fundamental aspects of the nature of reality reflected by way of language. This notion is to be contrasted with derivative necessary truth, differing only in that these truths are justified in virtue of the laws of logic, which serve as the foundation for their necessity. Yet what is the foundation for the laws of logic themselves, one might ask? To this my only answer is that there is no foundation for them, because they are **THE** foundation, period. This is what is meant by the term 'brute fact' - something which is simply so, and which has no further explanation. Yet it is important to note that the reason these basic notions lack an explanation is that they *are* **THE** explanation; they are that which could not be otherwise, the structure of the Absolute which always Is. In other words, these 'laws' are the linguistic echoes of regularities which are inherent in the very nature and essence of Existence itself, principles which not only serve as the conditions of possibility for the existence of our world, but which are also constitutive of our own souls.

Thus the laws of logic are the foundational basis for any and all derivative necessary truths, a category which comprises nigh on all of the necessary truths that there are. These principles are brute facts not just because they are required presuppositions for reasoning, but also because they are in fact expressions of the fundamental structure of Reality. This move puts us in good stead with the empirical fact that the ability to engage in higher order forms of reasoning seems to be positively correlated with evolutionary fitness, and it stands to reason that creatures embedded in a causal network exhibiting structural regularity would evolve in such a way as to be responsively adapted to such morphological patterns. This is what underwrites our capacity for sophisticated discursive analysis and gives us an explanatory basis for the efficacy of our systems - logic comes from Logic.

If these laws are foundational aspects of reality, then it is worth inquiring further into their nature so as to determine whether there is some ontic priority which holds between them by virtue of which there is one primary principle, and all others are derivative. Of the three laws of thought, identity would seem to be the most firm foundation, not least because it is always the first to be mentioned. Further than this, though, it would seem that the other two laws take the law of identity as an implicit presumption in order to make sense of what they mean.

Yet, one could equally object that each of the laws presupposes, entails or implies the others, and on closer inspection this indeed seems to be the case. Despite this, one can hardly shake the intuition that identity is somehow primary, to logic and Existence both. In contradiction to this, it might be offered that the LNC is instead the foundation of logic, since it is through this principle that we are capable of recognizing and rejecting falsehood, something which is arguably inseparable from reason. In comparison, the LEM seems somehow less important, and to some thinkers it has even seemed extraneous as a postulate of logical formalism. What are we to make of this?

In some ways the LEM appears commensurate with the LNC, because it seems that in order for the opposition between true and false to hold, and thus for contradiction to be unacceptable, these have to be our only available options. If indeed there are only the choices 'true' and 'false', then it seems thereby given that something cannot be both true and false at once, but must always be one or the other. This, of course, is in virtue of the fact that these terms receive their definitions in opposition to one another, such that falsehood is just non-truth, and vice-versa. Yet truth appears on the whole to be the more robust notion, despite the apparently tenuous situation of being given a definition only in relation to a contrary. In addition, identity seems to be embedded in the notion of a contrary, as !A only has its meaning in virtue of the supposition that A = A. Therefore if A has no meaning, then neither does !A. Truth thus appears more fundamental than falsehood, given that the negation of a given identity is only possible if we first have that identity. Consequently it seems that, if any of the three laws is to be considered fundamental, it must be identity. But why think that one is primary at all? We might wonder, might there be a more fundamental principle, deeper than any of these three laws of thought, which supports our concept of 'truth' and gives our laws of thought purchase so we can evaluate who is to be their leader?

It would be pertinent at this juncture to offer further clarification for the term 'truth', since it is just this that the current section of the discussion is determined to give a proper definition. It is natural to think of truth as a property of propositions, and in accomodating this observation we are given a contrary, namely that of falsehood. Hence it would seem that whatever definition we give to truth must be capable of an inversion which is consistent with our employment of the concept 'false'. This is something which bears remembering as we delve deeper into the various theories of truth. As a property of propositions, DMTheory is committed to accounting for truth by virtue of correspondence with actuality, according to a schema where true propositions map the nature of Truth in some way. A natural implication of this view is that falsehood is just going to consist in a mapping which does not accurately depict a state of affairs which exists in reality. Hence it would seem that Truth consists just in those states of affairs that exist, in combination with all the true propositions which could be stated about them.

Thus where truth is a property of propositions, it is precisely that property which is attributed when the proposition in question properly represents reality, i.e. represents reality as it actually is. The way things actually are, then, would be the denotative reference of Truth, and truth would be a property belonging to propositions if and only if they exhibit or reflect some extant state of affairs which is a component of that overarching 'way things are' (Truth). Thus Truth would seem to refer not just to the way things are, but more specifically to every way that things really could be, in combination with all the true statements which could be made about such situations (as these too will end up counting as facts). This totality of facts is given in our central conception of DataLogic, which entails every possible combination of things. But how is it given? It is given due to the 'fact' of Logicality, which is supposed in this model to be a fundamental aspect of Reality as such. The Theoretic is entailed as a Logical implication of the Absolute, and it is within the Theoretic that our own world exists. Yet, it might be asked what this higher order concept of Logic which makes it necessary that this world should exist really is? It is in this question that we find a convergence of structural consistency - Relativity as such - and the PSR.

Given that Truth as such is Actuality, or DataLogic, it seems that we must consider the nature of Logic if we are to understand the nature of Truth. The hypothesis which extends the basic thesis of this paper is that truth is a consequence of the Logic of the world, and that by more closely analyzing that world we can find the fount of truth. Hence we find that fount in non-contingency, which has as its necessary counterpart structural consistency, or in other words the principle of relativity. Relativity is ultimately the bond which permits 'structure', the prerequisite and paradigm of consistency; both of these concepts presuppose some kind of connectivity between things. These connections are relations, and consequently it is made plain that the general order and pattern of the world presupposes the principle of relativity, of which consistency is the most direct manifestation.

Thus Relativity, one of the crown-jewels of physical theory, turns out to be the basic principle of Reality itself, and in so being, we are given a basis for our laws of thought which is more transcendental than we could possible have hoped. In light of the notion that relativity is essential to Reality, it would seem obvious that we are thereby given not only true and false, but distinction and polarity, as well as equality of self-identity, contradiction, and the LEM. For how can we have contradiction without relation between two things which are contrary, and how can two things be contrary except by having their identities defined in connection with one another? Similarly, how can we have a LEM without there being poles between which a middle can be imagined? It would seem that every law of thought, every principle of logic, depends upon the truth of the principle of relativity. If the principle of relativity is not an essential element of reality, then sense-making makes no sense. Yet we *can* make sense, and often do. In fact, the very notion of 'facts' itself presupposes the principle of relativity, because if objects do not stand in certain relations, what could facts consist in? Relativity must be recognized as the formula for Reality if we are to countenance facts in our theory of truth, and this seems like the only reasonable course of action available to us

Finally, we ought to consider the connection between the principle of relativity and the PSR. Where the PSR is the principal motive of explanation, relativity serves as the connective tissue which is required even to make sense of the PSR, let alone for it to be true. For of course, its truth depends on their being certain relations which exist in the world, namely those of cause-and-effect or, more broadly, those of dependency. The PSR after all is a codification of the notion of dependency of things which are the case upon reasons which are sufficient to make them so, and this essentially connective notion is indebted to the presumption of relationship, most fundamental of all principles. Similarly with the concept of truthmakers, which we will consider shortly, we are met with the relation between a proposition and a fact; yet always the relation shines forth, because relativity is everywhere.

Is there some way in which a principle of sufficient reason can sublimate this truth-theory contest and recruit the various competitors for a quest towards collaboration and co-operation instead of conflict? We will return to the PSR at the end of our consideration of the various theories of truth, where it will help us crystallize our solution. For now however we must explore more deeply the most prominent competitor to the correspondence theory of truth before we make plain the precise nature of correspondence itself. (fingers crossed that this part is useful)

Truth, Utility and Correspondence

Anyone who explores the various theories of truth could be forgiven for getting the impression that they are all jostling for the #1 spot, trying to be crowned the 'True' theory of truth, even though some of these theories openly distrust the very concept of Truth. Each of the theories appears to offer quite different yet equally intelligible ways of looking at truth, and thus the confusion naturally arises as to how they can all appear to be true when they seem to contradict one another? There must be a reason that all of them seem accurate in their own way, and there must be an explanation for how it can be that they appear to make very different claims which are however somehow not mutually exclusive with one another. Yet if they are not mutually exclusive with one another, why are they commonly presented as alternatives, rather than as different ways of thinking about the same thing? Such are the musings which have long foreshadowed this exploration, the catalyst for which lies in the opportunity - presented by the task of rewriting DMTheory - for resolving the oddly dissonant harmonies of the views into an integral whole, a frame within which the pieces will fit. But enough talk; allow us to begin.

The pivotal yet little-known truth is that each of these theories attempts to create progress within one of three fundamental projects which jointly compose the philosophical attempt to analyze truth, but none of the available schools of thought deals with all of the projects at once. Since the various theories of truth attempt to address various projects, they are not as incompatible as they initially appear and may in fact be capable of harmonizing to create a grand unified theory of Truth. Such could integrate our assorted theories and contextualize them as collaborating towards an understanding of our notion of 'truth' based upon the intuition that the various theories of truth articulate different aspects of one notion, namely correspondence with the thing-in-itself, differentiated via various sub-sentential factors relevant to the diverse use-cases for the conceptual construct of assertion or 'being-true', as well as the different domains of discourse to which these ingredients of the sentence belong.

Logic has taken us far, but science has taken us further. Science consists of models which make predictions that hypothetically match the future behaviour of a system. If reliable this then enables us to produce technology that works, and the power generated by such technological innovations has made the life of man immeasurably better. He has become the kind of creature his ancestors might have thought a god, and it is all because of that famous 'truth' which his science is capable of discovering. Yet what is the nature of this 'truth'? There are in fact various theories which have been propounded in an attempt to explain this, with one extremely popular idea being that truth is nothing but the potential utility of believing a certain proposition or idea. Thus, any idea which works is 'true enough' for our purposes, and that's all that matters. Such a conception is naturally undercut by the existence of obvious counter-examples, such as useless truths and useful falsehoods, however it remains popular.

Of course, this is a dramatic simplification of the pragmatic theory of truth, which in fact contains a significant amount of nuance across its various formulations. What is fundamental to all versions is that the truth predicate is given a pragmatic analysis, which asks 'what is the practical difference in describing a proposition as true rather than some other adjective?' i.e. what does the word true say about a proposition, or what do we mean by calling it true? Pragmatic theories of truth often pursue two of the three distinct projects associated with a philosophical understanding of truth, namely the justification project, which seeks characteristics possessed by most true statements through which the probable truth or falsity may be judged, and the speech act theory, which concerns an investigation of what we are trying to accomplish when we are calling a proposition true. The project that pragmatic theories of truth reliably leave unaddressed is the essence project, which concerns trying to give a definition of the nature of truth consisting of necessary and sufficient conditions for what it is for a statement to be true. This is an indispensable aspect of what 'truth' means, and it is here that correspondence alone shines.

There were three major thinkers who initially developed pragmatic theories, namely C.S. Peirce, William James and John Dewey. Peirce primarily focused on the speech act project - he asserted that we can know nothing about the essential nature of Truth (he even used this notation, thus admitting the existence of its referent). His suggestion was that we instead strive to attain a state of belief unassailable by doubt. Yet, one might fairly wonder what kind of belief is unassailable by doubt - "dependable in the face of all future challenges" - except one which echoes some actual state of affairs, thereby corresponding with Truth. It is unclear what difference there might be between suggesting that we try to make our beliefs approximate Truth as closely as possible, and proposing that we attempt to make our beliefs 'unassailable by doubt'. For what kind of beliefs could prove perpetually unassailable by doubt but those beliefs which were derived from a methodological analysis of the regularities of Nature herself, representations which thereby depicted the workings of nature in some small and limited degree? The only state of belief immune to doubt that could be counted as rational is one which represents the world rightly, because only such a model will align with each and every subsequent observation. Any other such state of belief would be considered madness by most. It is difficult for most men to imagine a state of belief unassailable by doubt except one wherein the beliefs one holds are actually true. What else could make beliefs immune to future doubt?

In explicating Peirce's view of the purpose of describing a belief as true, the SEP states that it is to point to its dependability in the face of all future challenges, to signal the belief's scientific bona fides, and to endorse it as a basis for action. It seems clear that all of these are indeed aspects of what we, in certain contexts, wish to convey by means of calling a belief 'true'. Yet, as we noted, the notion of perpetual dependability comes dangerously close to the idea he wished to dispense with, namely Truth. To buttress this observation, every time Peirce elaborates upon this concept, he seems to implicitly rely upon a circumspect notion of Truth. "The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth" & "truth is that concordance of an abstract statement with the ideal limit towards which endless investigation would tend to bring scientific belief."

The indirect reference given by 'the opinion all who inquire will ultimately agree to' is a desperate attempt to avoid making explicit a commitment which is already implicit in one's thought. Endorsement of a belief's scientific bona fides and its supposed reliability as a basis for action are obviously suggestive of Truth. Refusing to explicitly invoke the concept of Truth does not conceal its clear implication, but rather makes it all the more conspicuous.

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William James was a contemporary of Peirce, and he was the man who popularized the idea of a 'pragmatic' theory of truth, although his ideas differed somewhat. James focused more on the justification project, and in doing so he managed to outline an incredibly clear picture of a view which is today called instrumentalism. Rather than defining true beliefs as those which would withstand all future scrutiny as Peirce did, James outlined the characteristics of true beliefs as ones which are useful and dependable, and in so doing he managed to articulate an entire class of truths - those which we flippantly called 'true enough' earlier. True enough for what, one might ask? For whatever we want to do, of course. Though such a conception seems quite philosophically queer at first, it quickly grows more palatable as one considers the benefits of such a prudent characterization. After all, such a statement makes no claims about the ultimate status of the model, and indeed explicitly acknowledges its provisional nature.

James tells us what he means quite clearly: "Ideas become true just in so far as they help us get into satisfactory relations with other parts of our experience, to summarize them and get about them by conceptual shortcuts"; 'true enough' therefore means "any idea upon which we can ride, so to speak; any idea that will carry us prosperously from any one part of our experience to any other, linking things satisfactorily, working securely, simplifying, saving labour." In this conception we can discern two types of 'true enough', which we will hereafter call instrumental truth; the first type is weak, and the second strong, with the former consisting in a kind of coherence between an experience and a conceptual framework, where we are able to rationalize or 'make sense of' our experiences by means of a certain idea. This is in keeping with the import of the first quote, in that it is something which specifically aids comprehension. Strong instrumental truth on the other hand is better exemplified by the second quote, because it involves effective functionality, the tangibly manifest utility of a tool which works to facilitate the realization of desire, rather than a merely conceptual schema for intelligibly simplifying the world.

To James, 'true' ideas are just conceptual tools which function effectively - they are true insofar as they work for us. Yet just as a screwdriver works because the end matches the notches in the head of the screw, and just as a hammer works because its design complements the design of a nail (as opposed to, say, a screw), so too do all tools function due to some kind of complementarity which exists between the tool and that upon which the tool acts.

The nature of this complementary connection will be explored shortly, but for now let us consider whether truth and utility are indeed identical, as James claims when he says "[whether one says] 'it is useful because it is true' or 'it is true because it is useful' - both these phrases mean exactly the same thing." Against this stands the intuition at the heart of any correspondence theory, namely that truth consists in correspondence to reality, and utility can only be derivative of such correspondence. Yet even without this objection, it seems obvious that, though obviously related, truth and utility cannot be the same thing. This is made most apparent through counter examples, such as that of the useless truth and the useful falsehood. These terms simply have different use-cases.

Obviously, truth and utility can therefore no more be identical than can utility be said, at least without further clarification, to always consist in correspondence. For surely a useful falsehood is not true, and therefore does not correspond. Prima facie, it thus seems that utility and truth cannot be identical, not least of all because utility alone is a principle ungrounded. One might ask why one particular model, rather than any other, could be shown to work, why some subset of designs should prove 'optimal', 'efficient' and 'effective'? In other words, what is it in the nature of things that decides which strategy will work while all the others fail? Is it to be taken as a brute fact, this 'working'? Such would seem to be an extremely counter-intuitive view. Without recourse to correspondence with a mind-independent reality, it's unclear how the preferability of an aeroplane to a cardboard box with respect to the goal of flight is to be explained. Is not the very fact that a model works reason to consider it as prospective truth? The real question here is simple: why does it work? In answering this, we will discover our difference.

To elaborate further upon this consideration, surely the unreasonable efficacy of the design of a modern aeroplane in achieving flight is due to a compatibility of that design with the mechanics of aerodynamics? This, in turn, is obviously derivative of the capacity of our models to 'match' the actual dynamical behaviour of air, which is clearly a kind of correspondence. Admittedly, there may turn out to be representations which correspond with reality yet which do not impart a practical benefit to the agent (useless truths) as well as representations which fail to correspond with the way things actually are that nonetheless exhibit some peculiarity which, in the right context, could confer a benefit (useful falsehoods). Nonetheless, what is important to recognize is that those ideas upon which we can 'ride around', so to speak, will ultimately avail themselves to us in this capacity only insofar as they are capable of producing traction upon reality, a state of affairs which is only intelligible in light of our capacity to produce models which, at least in some respect, correspond with Truth. The exact nature of correspondence obviously remains to be seen, but in the absence of such a supposition, manifest utility is puzzling, to say the least.

The example of useful falsehoods will be explored in more detail later, but for now suffice to say that there must be some kind of indirect correspondence with reality, one which is not explicitly specified in the representation but rather arises from a fortuitous pairing of the model with a seemingly unrelated phenomenon which it manages to functionally mimic. Thus it is that certain kinds of mathematically problematic formulae, such as the square root of negative numbers, can provide a basis for modelling the behaviour of certain types of cycles in nature. This is just a sketch of the solution which will be pursued in the section on correspondence itself, however it should - in combination with the insights outlined above concerning the instrumentalist thesis - provide a basic sense of how such things might be accounted for. The important factor in this connection is simply that the pragmatic theory of James emphasizes not that the representation is accurate, but that it does work for us. This concept is key.

x

Our final stop on this tour of pragmatism is an examination of the ideas of John Dewey, who gave us a particularly precious contribution by way of his 'operational' analysis of the meaning of correspondence. Dewey employed my special notation for Truth just as Peirce did, and like Peirce he also regarded this as relatively unimportant compared to a proper understanding of truth, which (according to him) is all science can know about. Dewey called true those beliefs which have been verified by the scientific method, although he later moved away from the term 'truth' altogether and instead focused on warranted assertibility, an epistemic concept thought to lack the sorts of conceptual baggage over which pragmatists despair. Much of Dewey's later work on this subject revolved around the notion of warrant, however we are primarily interested in his remarks on the nature of correspondence.

Dewey alone among the pragmatists seems to have achieved a comprehensive grasp of the exact nature of correspondence, and he alone expressed it clearly and concisely, however his epistemic anxiety prevented him from drawing out the appropriate implications for the notion of correspondence as central to a substantial theory of truth. Instead Dewey shies away from the concept of Truth altogether, although he appears to admit of its existence, believing that nothing can be known about it - that each man might have his own conception of it, but that regardless of this conception any man who attains to the distinction 'scientific' will still have the same sense of the truth predicate, and will therefore produce the same or very similar examples for each supposedly legitimate field of inquiry if he is asked, 'What is truth?' (he will thereby be giving a definition by ostension and consequently evading the problem of giving an account of what truth really is. Dewey later attempts to resolve this ambiguity within his analysis by giving an analysis of the truth-predicate in terms of what is warranted.)

What we are interested in therefore cannot be the examples themselves, but how one rationalizes the collection, how one conceives of what they have in common, and more generally whether every scientific man would agree with the pragmatic postulate. Science, after all, is unique in enabling men to agree on the facts through recourse to an epistemic method which we all support, however it is less clear that each man who supports the same set of scientific theories will agree about what it is that makes them all true. Is it really that they are the most useful?

The pragmatic postulate, of course, is that the very meaning of the concept of 'truth' can be boiled down to the utility gained by designating some propositions true, and some propositions untrue. In general, although admittedly only implicitly, this lends itself to a theory of truth which says that what is true is nothing other than what is useful, an idea which is radical in its implications, as it opens up the possibility that humans 'make' ideas true by making good use of them, involving us in some very dubious territory as to the truthfulness of efficacious lies. Nonetheless, the important recognition for the pragmatist is that the truth predicate must be understood in connection with processes of inquiry, and that when ideas 'prove' themselves useful in making sense of the world, and at the same time withstand further inquiry, we consider them verified and we call them true. In this sense, it could be said that the ideas have become true as a consequence of the inquiry itself, and that our judgements thus decide what is true. Yet I suspect that any who sought to be done with the metaphysical concept of truth could not really feel that the inquiry was settled until we arrive at a clear sense of what it is that we are inquiring into.

Presumably, what we are interested in knowing about is the nature of the world, and it is therefore this that our models take as their object: the world in which we are all equally ensnared. Our representations are ostensibly 'of' the environment, that context which encircles us and is the foundation of our existence. Those representations are adequate to the extent that they are supremely warranted, and they are supremely warranted when they work for us and withstand future inquiry. But withstanding future inquiry is a nebulous idea, made concrete only by a metaphysical concept of truth which is only ever alluded to in Dewey's writing, and that only sparingly.

For what could result in a particular understanding of the world never being superseded by one which men felt more favourably disposed to, as it fit within the current scientific milieu better. And is it not plain that a man may have some delusion which serves him in getting his needs met without its having any connection with the way things actually stand in the real world? For his delusion might cause him to be labeled as an invalid, and to have his needs met for him. He might even see this as part of some grand plan, when it is precisely the dysfunctionality of his representations of the world which have resulted in his being hospitalized. The point here is that we can identify that some representations of the world are obviously false, i.e. delusional, illusory or otherwise mistaken or misguided. They are false simply because, for one reason or another, they depict the world wrongly. It is possible for a belief to work for us, and to simplify our experience and make them intelligible to us, yet to be false.

The object of our inquiry is, of course, the nature of the world, and so it is with the world that our models hope to correspond. If they succeed, then we call those models 'true', or 'true enough'. Correspondence with things 'as they are', then, is the typical constraint which is imposed upon such 'truth-making' so as to prevent the possibility of 'making true' absolutely any kind of nonsense whatsoever. But what is this correspondence, in the mind of Dewey? He describes correspondence in the context of truth as "a mark of a proposition [which applies to it when it corresponds] as the parts of a machine correspond." This is a suggestive remark, and it foreshadows clearly the later development of his thought on the subject. How do the parts of a machine correspond? They fit together, they are of such a morphology that, though not necessarily all equally identical, their contours are complementary to one another. They correspond to one another in the sense that they 'hang together' in a functional manner.

This statement has naturally received a wide variety of interpretations because the question immediately arises - what is the machine, and what are the parts in this analogy? It should at least be clear that, in principle, nothing forbids this interpretation from countenancing a metaphysical interpretation of truth, for it might be that (and this is indeed the strategy which will later be pursued) the parts of the machine are man's conceptual models and tools on the one hand and the contours of the problem space with which he grapples on the other. Yet the remark seems more suggestive rather of an interpretation which sees the parts as both being phenomenally situated, those parts being expectation and outcome, in which case we are bordering on a species of the deflationary notion of truth. I trust what has already been said in relation to that issue is sufficient to put such ideas to bed, but if not allow me to reply thusly: although it is indeed true that dependable and predictable outcomes are a hallmark of the 'truth' of any particular model, it suffices to point out that the possibility of accurate prediction is not itself self-explanatory; similarly the possibility of 'depending' upon a model to provide traction on the world once more raises the question why any particular model should prove 'effective' in this respect, while others would not so prove?

What else had Dewey to say on the subject, later in his career? "My own view takes correspondence in the operational sense ... of answering, as a key answers to conditions imposed by a lock, or as two correspondents "answer" each other; or, in general, as a reply is an adequate answer to a question or criticism; as, in short, a solution answers the requirements of a problem." Here we see a number of examples which serve to sketch an outline by way of analogy of the nature of correspondence with respect to truth. In the key example, we can clearly discern the notion of structural complementarity, while the same notion is present in a much more muddled form in the example of literary correspondence. In the example of an 'adequate answer to a question', we can perhaps discern the muddling element from our previous example as a combination of relevance and aptitude, each of which together compose the linguistic form of 'fitting together'. Notice that with these two examples the possibility of a coherence position on 'the essence project' of truth presents itself, albeit in an elliptical form. The most enigmatic yet frustrating example he gives last as a generalization: solution to a problem. What can this be?

What kind of correspondence is it that is involved in the successful resolution of a problem, and how are we to correctly conceive of a problem? A problem must be conceived in one of two ways; either as a puzzle, which is to say some kind of question or quandary which vexes the mind or soul, or as an obstacle to practical action. A problem is something which is 'not right', something which one wishes to remedy either through action or thought. As a puzzle, a problem concerns something which one wishes to know, typically in the form of a question one wishes to be able to answer. As an obstacle to action, a problem is something which prevents us from progressing.

This latter is what is most clearly visible in the key example (in this case the practical action required is to open the door or what have you in which the lock is embedded), and in the original statement of the theory, that of correspondence 'as the parts of a machine correspond'. For machines of course facilitate some practical activity, and just as the structure of the key uniquely facilitates its capacity to 'answer to' the requirements imposed by the lock, so too does the design of a simple machine depend upon certain principles of mechanics in order to make possible certain forms of labour. Gears, for example, answer to one another in that they fit together, and the resulting contraption is able to convert forces, as a fulcrum acts on a lever. This however is only possible because the gears structurally correspond with one another - else, they would not turn, and conversion could not occur.

The sort of problem that we have in mind is perhaps best thought of as halfway between our puzzle and goal-obstacle, as something like "how might one manipulate the environment in such a way as to enable the lifting of things which would otherwise exceed the capabilities of man?" Such a thing depends upon the possibility of 'traction on Reality', which of course is where the original intuition at the heart of correspondence comes from. That intuition says that the ways of being and knowing which survive are those which are adequate maps of the problem space. On an adequate map, the representation must correspond with the relevant features of the terrain. Sticking with the analogy, this means that the ink on the page must replicate relevant regularities and variations that are present in the topographical layout of the environment. More generally, however, one can think of the organism as itself a map, or perhaps instead as a key that opens the lock of survival. The genetic code is a library of morphological configurations, and those biological forms which entail abilities that best correspond with the demands of the current environment are given a survival advantage. We call this fitness, and it is the true root of our tendency to create models which match the environment, because we ourselves are a function of the goal in the grand game of evolution. We learnt to create mental models that fit because it helps promote our fitness.

This evolutionary lens on correspondence is frequently paired with another central cognitive metaphor, namely that the mind is a mirror which is reflecting reality, and it is commonly assumed that the 'traction' which we referred to before is a consequence of such a 'reflection'. There is, in fact, much truth in this idea, but what is important here is to consider whether it is as simple as it prima facie seems according to this analogy. This ways of thinking tells us that models of reality are designed to depict things 'as they really are', but it might be objected that we can never know such a thing, and indeed there is a compelling account of this kind known as Interface theory. We will briefly examine this perspective in order to validate its insights while rejecting its excesses.

According to Interface Theory, the reality that we experience is composed of 'icons' not dissimilar to the kinds of icons you might find on a computer screen, connected only vaguely and through the 'back-end', so to speak, with the underlying code which composes the virtual environment of an operating system. Consequently, rather than the intuitive view that when we all perceive a dog, there really is a dog over there, this way of thinking would have it that 'dog' is actually a gross simplification of an entity the sophistication of which far exceeds our brain's capacity to cognitively encapsulate. Whatever 'dog' is, according to Interface Theory we can never know anything about it; all we can know about is the 'icon' our brain has constructed to represent to us the entity over there.

Of course, there is a kernel of truth here which is also found in many forms of mysticism. Some have even imagined that this reduces all of scientific knowledge to a kind of fictionalism, and it is easy to see why this might be so. But it is equally easy, I contend, to recognize that the very nature of an icon is to represent, despite indeed being an abstract sort of representation, an aspect of Reality as it manifests itself to our minds. Insofar as these icons permit and facilitate the kind of 'contact with reality' which traction as a metaphor depends upon, it is plausible that correspondence can yet be defended as a thesis which links up our speculations and the world.

Icons of course are typically used to represent applications, which can be thought of as virtual instruments, a pre-designed set of operations which generates some interface that facilitates an activity you wish to engage in. Take, for example, a simple word processing application - there is a complex framework which is instantiated and 'spun up', as one might turn on a machine, when this kind of program is launched. The icon which one double clicks acts through a series of nested abstractions based in physical, electrochemical manipulations which encode the execution of the various processes required to permit the functions that are demanded of 'word-processing software'. Although the icon is vastly different from the user interface, which is itself quite different again from the underlying code which the icon 'spins up', there is nonetheless a set of relations through which the icon and the software it represents are grounded in structural regularities that exist in Reality as such. Such a supposition seems required by the fact that our model of electrical phenomena is sufficient to construct machines like computers. Here it seems we have returned to the thesis that our models 'reflect' the structure of the real world. Yet such a view is known to be plagued by puzzles, such as how it can be that previous models which are now known to be wrong (such as Newtonian physics) were at one and the same time incredibly useful, indeed 'true enough', and yet were ultimately based upon assumptions which we now believe we know to be false.

Such examples seem to show that at best it is possible for there to be some kind of partial or incomplete correspondence, and therefore we need to consider more closely just what is meant by correspondence. The mirror theory of the mind suggests to us a 1:1 'picture' of the way things are, with everything as it should be but the dimensionality restricted immensely. Yet this very reduction in complexity already moves us away from a true picture, and instead moves us towards some kind of abstract representation, where the most relevant aspects of the world are represented by features of the abstract thought (about the world). These most relevant aspects will be structural regularities of the sort which pertain to the dimensions of the world which are appropriate on the one hand to the sensitive apparatus of our organism and on the other hand to the more general constitutive order and organisation of Reality. The view which is taken in this paper regarding the status of Logic should at this point be clear, in that general principles of logic must be essential to the fabric of Being, but it is important to understand in what way more derivative theorems 'correspond' with the way things stand in reality.

Here it is instructive to consider once more that pivotal example of the key in the lock; notably, what permits the key to 'answer' the lock is not the kind of partial structural isomorphism which was being alluded to before, but rather a kind of complementarity of structure. That is, it's not that the key corresponds with the lock in that it's the same, but in that it lines up sufficiently with the contours of the problem space. The correspondence of our propositions and our theories with reality might plausibly consist of a mixture of the aforementioned kinds, but what is clear is that 'as the parts of a machine correspond', so our conceptual representations of the world must 'fit together' in one respect or another with the structure of the world in order for it to be possible for us to generate the traction which manifests itself most clearly as technological innovation. In order for propositions or theories to be 'reliable' in this way, to be capable of being made use of, they must make contact with reality.

In other words, how does a 'reliable' correspondence between expectation and outcome - one upon which we can depend, that is, one which allows us to predict what will happen to such an extent that we can construct solutions with 'traction' - how does such a correspondence 'work'? From whence does it derive its utility? The key issue of pragmatism, the central issue with a theory of truth that refuses to countenance the problem of essence, is that one relies upon principles which themselves are more mysterious than that which they aspire to explain. Utility must itself be given an account, it cannot be simply treated as a simple which does not invite investigation. The key concept to the method employed here is, as has been mentioned, that of points of contact. Theories 'make contact' with reality by representing it correctly, corresponding such that 'as it signifies, so it is'; that is, theories which work do so because they are, in some respect at least, true. In other words, they rely on certain descriptions of structural relationships which are either partially isomorphic with some relevant aspect of the domain, or which are complementary to some of the contours of the problem-space. The points of contact are those features of the theory which 'line up' with the contours of Reality, and which therefore 'fit' with the rules or regulatory principles which are inherent to the domain of the problematic and the associated sphere of activity. This capacity for fitness with aspects of Isness is what is ultimately 'selected for' by Nature in the minds of men.

Utility is thus born of the structure of an idea matching the structure of reality - but not necessarily in the way that is intended by the theory. Rather, it is a kind of resonance, a harmonizing rather than a straight-forward mapping. What is meant by 'match' is that something in the world responds to the idea because it is in some respect *the same*. This 'matching up' with reality then somehow creates traction, a metaphor which presupposes our points-of-contact account; this 'match' between model and phenomenon allows us to utilize the idea to exploit something about the nature of reality in order to facilitate the realization of our purposes and designs. Thus the key, although it is not exactly the same as the lock, opens it nonetheless, and so a good model allows us not only to understand the forces of nature, but to harness them to achieve our goals. Sometimes those goals are action-oriented and externally directed, but frequently they involve the question of understanding our experiences, making intelligible to ourselves what has happened in a way that is serviceable to future living. It is certainly evident that simplifying the world by way of some representation which yet preserves a functional relationship with what it stands for constitutes an essential mark of truth, even if it is in some respects fallible as a test. Ideas upon which we can 'ride around', and which make the world intelligible to us, are indeed 'true enough' (mostly).

But this description of truth - is it itself true enough? Are we really satisfied with a 'just so' account, a *merely 'true enough'* explanation of perhaps the most profound subject of inquiry there is, ever was and ever will be?

According to a pragmatist, there is no standard better than the one they are currently using, and as the old pragmatic maxim goes, 'if it ain't broke, don't fix it'. Yet to one who is not quite so narrow-minded, this might seem a way to avoid the critique implied of one's standards. Certainly these notions, such as that of being 'carried along' by ideas, are vivid depictions of the phenomenology of truth, but it might reasonably be inquired as to whether 'working' is really all there is to truth, or whether that concept itself presupposes an even more primitive conception, namely that of the correspondence with reality of the model in question. And indeed, it seems plain as day that it must do so, for otherwise we will be left with an explanatory lacuna in a most unfortunate spot in our model. For we will be making the entire lynchpin of our theoretical understanding that 'what works is what is true, and what is true is what works', while at the same time having no real understanding of either of these concepts. For what is it, to work? What does it mean? How can we base our theory of truth on such a nebulous notion?

Of course, something is true when it works for us, and it works for us when we get what we want by using it. Such a description certainly seems simple enough - deceptively so, since it neglects of course the question of how come only certain ideas 'get us what we want' when we use them, when others do not? Of course, at this point we are approaching ad nauseam - beating a dead horse, as they say - but it is important to stress just how much a pragmatic theory must rely upon what it implicitly doubts and fails to acknowledge as presupposition, namely that some models work and others don't essentially because only some very tiny subset of the possible representations of reality match up with the way things actually stand in the real world. This intuition, as has been stated, is what is ultimately at the heart of the correspondence theory, against which the pragmatic theory was intended as a rebellion, yet the grips of whose central presuppositions could not be evaded, even if they could be made implicit and unconscious. And this dialectical move, as all such moves tend to, contributed richly to our understanding of truth by focusing so heavily upon the speech-act conception of the truth predicate, a focus which has proven most fertile for my own reconstructions of the fractal crystal of Truth-theory throughout the writing of this discussion. The unending emphasis on representations mirroring reality will receive a more technical gloss in the upcoming section, as we are able to finally get down to brass tacks and find out what truth really consists in.

Through our exploration of pragmatism we have gained a much clearer vision of the concept of correspondence, a vision which will now be supplemented by a more modern interpretation of this most central of theses. We also gained an understanding of the kind of poverty we are condemning ourselves to if we wish to do without an answer to the 'essence project', a theme which will be pursued to its heart before the conclusion of the discussion. The feeling that there must be something to the essence project is what has motivated the creation of 'truthmaker theory', seen by some as a novel iteration of, and by others as a development of, correspondence theory. It is to this that we turn now, in order to clarify the exact details of correspondence in light of what we've learnt.

Truthmakers and Truthbearers

The central commitment of any sincere theory of truth will be that there is a thing-in-itself (Truth as such), and that our true propositions and theories are a way of being anchored to this mountain of Truth so that we do not have to choose between 'freely' floating upon fantasy or plummeting through the air to our deaths. This metaphor serves to concisely express the intuition at the heart of correspondence theory, reimagined (or rebranded) in the modern age as Truthmaker theory. This intuition is, of course, simply that those things which are true are true by virtue of the facts. That is, they are 'made true' by the facts, and so there is, it is thought, a 'truthmaking relation' between some fact or set of facts (typically thought of as a state of affairs) and the corresponding 'truthbearer'.

Truthmaker theory is thus the thesis that every true proposition (otherwise known as a truthbearer) is made true by some subset of the facts which make up the world. In order to make sense of this theory, one must give a clear definition of each of the relata, namely facts and propositions, such that we might thereby be able to judge the adequacy of the conception. We will also take a closer look at this notion of 'making-true', and what it consists in, which will supplement our comments thus far about correspondence. Note that the following account invokes novel terminology which extends the basic premises of DMTheory to more fully support the goals of truth-theory.

Most people feel that they already know what 'facts' are (although a remarkable number struggle to spell this familiar notion out if asked), so we will begin with the perhaps more obviously elusive notion of a 'proposition'. A proposition is, in the first instance, an affirmative statement about something, a *proposal about the way things might stand, combined with the suggestion that they do so stand*. But perhaps this is too esoteric for an introductory definition. Propositions are often described in the following way: I believe that Donald Trump was president of the united states, and there is a difference between my belief and 'what-I-believe'. The 'what-I-believe' is something that you believe as well, because you also believe Trump was a US president. That thing which we both believe is called a proposition; it is a shareable object of belief which can be true or false, or in the terminology of Truthmaker theory, it is what is called a 'truthbearer' (meaning that it bears truth-values).

Propositions then are thought to be 'made' true or false depending on how things stand in the real world, which is to say, depending on whether there exist one or more facts with which the proposition corresponds. There are however several puzzles that arise concerning the precise nature of propositions. Some might hold that there are propositions which would be true whether or not there were any linguistically competent agents to articulate them or judge whether they met the truth-conditions one might impose on them. In fact, it would rather appear that propositions are true or false simply depending on the facts themselves, rather than our judgements about them.

But what then are facts? We speak about facts in two main ways, on the one hand as true statements and on the other hand as the things which make those statements true, i.e. there being in the world certain entities standing in certain relations. It is by standing in a certain relation (correspondence) with these states of affairs that propositions earn the right to be called true. But here we come up against a puzzle, namely that in connection with certain counterfactual circumstances in which there existed a cosmic situation which could not at any point generate speakers, certain propositions can still be called true, presumably because the facts which they report do obtain. This might be taken to suggest that true propositions just are facts, a thesis known as the identity theory of truth, an ultimately deflationary strategy which goes in an altogether new direction, supposing that if true propositions are nothing other than facts, and facts nothing other than true propositions, then there can be no truthmaking relation, because a relation requires the distinctness of the relata. Of course, in order to determine if facts and true propositions can be called identical, we will ultimately need to improve the clarity of our conceptual picture of each of these entities, and compare them in various ways in order to evaluate their degree of similarity.

Meditations on Propositions

A proposition, like language more generally, is representational in nature; on the one hand, certain elements of language match up with and 'stand for' certain aspects of that-which-is-represented, while on the other hand through this part-wise correspondence they realize a peculiar kind of magic: they picture things as being a certain way. What's more, this strange picturing-phenomenon leads to the manifestation of even more magical possibility, namely that the picture can represent things properly, that is, that *as it signifies, so things stand*. Marvel upon marvel, this makes possible a further crystallization of the magic, namely that certain models can predict how the phenomena which make up the environment will behave, and that on the basis of these models, technology can be constructed which *actually works*. Is this not astonishing? Of course not; what else, after all, would we expect? If language did not represent the world in a way that was at least semi-functional, we would hardly find it useful.

The mind might be thought to be a strange species of mirror; at any rate it seems it fervently wishes that it was! For the mind is more like a mirror-in-training in truth, but the essential point is the same: mind entails a capacity to form representations, to register the way things stand in the world through a mental model of some kind, a map, which aims to faithfully reflect the topography of the terrain. This of course is something which is a given, because such a device equips an organism with the basic materials it needs to figure out how to navigate its environment, evade threats, find food, mate, and so on. In other words, the capacity to create a representation of the world around you is a tremendous boon when it comes to fitness (survivability and effectiveness at propagating genetic information). Naturally, your mental model is an abstraction, but the fact that it works is testament enough to its fledgeling accuracy. In light of these considerations, the notion that the mind is, or in some respects functions as, a mirror seems at least plausible, and this way of thinking may illuminate our analysis of the nature of propositions. Propositions are language-as-tool functioning to depict the world we live in; they are a way of conveying certain landmarks which help the other to co-ordinate their thinking in such a way as to grasp the idea we have in mind.

Reflection, insofar as by it we mean something as ordinary as seeing in the surface of a still body of water the night sky, or, indeed, one's own face, is a fact of nature. My suspicion is that such a phenomenon forms the prototype for representation more generally - it is the occasion of our 'knowledge by acquaintance' of the capacity for one thing in nature to picture another. The brain, being a mirror-in-training, tries to imitate or ape the natural mirror which it observes in bodies of water, and in so doing the seed is planted for representational language, and more importantly, for self-reference and the capacity for introspection (self-reflection). This opens up the possibility of abstract thought in general, and more particularly it gives rise to the phenomenon of propositions with which we are concerned in the present study. Hence we are provided with a plausible account of how we may come to know about propositions - the same way that we know about any other abstract objects: by encounters with concrete particulars in experience. These experiences are then generalized into the kinds of principles which must be true in order to allow for the existence of the specificity and variety of Nature.

As concrete particulars in our experience, then, propositions are most notably things which occur in the context of language use. This is to say that individual language users employ propositions, if we like, in the higher-order tasks associated with the communication of ideas (among other things) to other people or the clarification of ideas to oneself. It is pertinent, therefore, to ask ourselves about the mechanics of language, since so much seems to hinge on the capacity for language to function in a representative capacity. It is well accepted that words, in their capacity as ordinary names, 'stand for' objects or entities which they signify in discourse; it is also well known that this denotative phenomenon has two aspects, namely sense and reference. The now-classic example which was used by Frege in his original paper was that of Hesperus and Phosphorus (evening star and morning star). Although these two names denote one and the same object (that is, they have the same reference, or refer to the same thing - Venus), the sense - the mode of presentation given to the reference - is different in each case. Thus, if we wish to understand complexes involving names, i.e. propositions, we will need to think along similar lines.

Frege's most famous thought was that the sense of a declarative sentence is itself a thought, by which he intended "not the subjective performance of thinking but its 'objective content' which is capable of being the common property of several thinkers, or common object of several minds." This of course should sound very familiar, because Frege is using a proprietary term (the thought) to refer to what has, in common parlance, come to be called a proposition. For a further demonstration that what he has in mind lines up with our concept of a proposition, consider the following remark, "The thought which we express in the Pythagorean theorem is timelessly true, true independently of whether anyone takes it to be true." This 'thought' can only be a proposition, because what he is referring to is a necessary truth of mathematics in the vein of <2 + 2 = 4>. These necessary truths are necessarily true propositions - theorems or equations which follow from the nature of logic itself, and which are therefore true by definition. So, the sense of a declarative sentence would therefore be a proposition.

This far, I think, we can follow Frege, but, I fear, no further, for his next step is to assert that the reference of the declarative sentence must be its truth value, on the basis (I assume) that this is where the mind 'comes to rest' when evaluating the thought expressed by the sentence. This I take it is reasoning by analogy from the case of proper names, where the sense of the name is associated with the movement towards the reference, and the reference is given by whatever object the mind ultimately fixes upon, if indeed such an object there be. Yet this analogy seems doomed to failure since, even on Frege's own view, names and thoughts seem to function in a fundamentally different way. This can be seen be noting that a name alone cannot have a truth-value, and cannot engender judgement itself, but only in combination with a predicate. Yet what is this combination with a predicate, except the construction of just the sort of sentence which was supposed to express a thought or a proposition.

Ok. Well, the sense, as we know, is the mode of presentation of a referent, and therefore even on Frege's own view we are compelled to ask what is the mode of presentation, and what is the referent. In the sentence "The cat is on the mat.", we are given two things, namely a description of a situation in combination with an implicit suggestion that this description of the situation represents the relevant entities and relations *as they really are*. Consequently, a methodological repetition might occur to us, namely to impose once more the distinction which originally furnished us with a recognition of proposition, namely that between the activity of believing and the what-is-believed. Similarly, we might wonder whether there is not, within the concept of proposition, an assertion and a what-is-asserted, aspects which could in principle be separated and analyzed as distinct elements.

Continuing in this vein of thought, it quickly becomes plain that the counter-intuitive notion that the truth-value is the reference of the proposition cannot be true, and that the truth-value must be replaced by the what-is-asserted, which - being separate from the act of assertion - cannot itself be a proposition. But then, do we not have a new entity, and is this not already quite a dubious thing? Surely, the critic would object, propositions are addition enough to our ontological taxonomy; we need not overburden ourselves with more conceptual baggage, especially when this new thing just seems like a proposition with extra steps. All this and more he might say, and if we are to refute these objections we must ensure that we are able to get clear about what the true nature of a proposition is and, if it itself refers, what it refers to and what modality of presentation that reference takes.

Propositions on the one hand are comprised of a structured complex of senses (the referents of which are entities which exist in the world, namely objects, properties and relations) which functions to represent some state of affairs, while on the other hand a proposition contains also in its nature the force of affirmation and of assertion.

In other words, a proposition does not only present a picture of the world, but it also says that things in the world really do stand as they appear to in the picture. It is towards this 'proposal' of a 'way-things-are' that we exercise what are called the 'propositional attitudes' (believing, doubting, etc.) and it is insightful to recognize that our name for truthbearers is in fact a kind of linguistic act - proposition. To propose that some picture of reality depicts things as they are, and is thus factual, is a language act, and therefore it might not be particularly intelligent to call the 'objective content' of that language-act which can be common between minds by the same name as the language-act itself. What is important to remember is that when we speak about propositions, and indeed when we speak about thoughts, we are never able to escape from the connotation of a spatiotemporally instantiated token.

Thus, propositions are always actual, in that they are linguistic acts which occur at a particular time and place, and in that they are expressions of some linguistic agent. On the other hand, the possibility of the proposition need not be actualized for us to inquire into what it is precisely that the proposition asserts - what is it that the proposition claims is 'true'? What it asserts must be a way-things-are, also-known-as a state-of-affairs; yet, can it be the state of affairs itself? After all, can one rightly be said to assert a state of affairs? Surely assertion is a derivative enterprise, and after all, what we typically imagine that we assert are sentences (or what they express, that is, propositions). Yet, as we have established, propositions themselves express and therefore refer to something - that which they affirm, on which their truth-value depends. This is that on which our inquiry into truthmaking ultimately rests, and therefore we must ask, what precisely is this entity to which propositions refer?

Reflections of Reality

Just as actual propositions are always enacted by some linguistic agent, we ought recognize that these language-acts by which some picture of the world is affirmed rely, in principle, upon the possibility of that picture. This is an embedded form of possibility, whereby the possibility of a certain (true) proposition hinges upon a certain possible representation in combination with the possibility of (the language-act of) asserting it. Actual propositions are instantiations of possible propositions, where both 'types' refer to and affirm the same primitively representational entity. In truth, they are not both types, but instead the possible proposition defines a specific type of linguistic act, while the term 'actual proposition' refers to a token or instance of that type. The type outlines the abstract content which is instantiated within specific sentences uttered by individual agents. This abstract content is what was referred to earlier by the term primitively representational entity, and it is also what propositions refer to.

This primitively representational entity I propose to call a reflection, in light of the fact that it is that-which-is-asserted, sans the assertive force; therefore, it is a logically possible picture of the world or, in other words, a logically possible representation. What Frege called the thought, that is, the objective content of thinking which can be the object of multiple minds at once, I call a proposition, which is a certain kind of configuration in language. This linguistic configuration lays out a set of co-ordinates in logical space by means of which both thinkers are capable of 'apprehending' the same reflection, to use Frege's terminology. It is the reflection which both of them refer to with their individual utterances, and this reflection is what both of them are thinking-of when they affirm the same proposition, or when one affirms and the other denies it. The proposition aims the mind at the reflection.

This technical sense of reflections, as was alluded to above, is best understood in relation to the natural phenomenon which occurs upon the surface of any body of water, and what is important to recognize about this phenomenon is that the possibility of such reflections is a primitive feature of the reality itself, and does not depend for its existence upon the actual existence of agents to perceive it. It is enough that there simply exist those mechanics of nature which would, in the presence of an observer, manifest as a reflection in the water. The point is simply that, in principle, such a perception would be possible, and just so with propositions as well. Just as the possibility of reflection is a feature of reality, so too is the possibility of representations, for in the end, these are one and the same thing, except that the kind of reflection which is a possible representation is quite a bit more fundamental than what one might see in the water. What is meant by this is rather the metadata of the world.

Just as the structure and mechanics of physical reality created a context within which was rooted the possibility of the phenomenon of the stars being reflected in the still surface of a body of water, so too the logical and reflexive nature of reality entails a set of mirror images, echoes of extant states of affairs which do not depend upon a mind for their existence. These echoes are our primitively representational entities - just as the mechanics of physics enabled the possibility of the phenomenon of reflection, a possibility which was not yet actualized until there were living creatures which were capable of sight, so too are the echoes of Truth a latent possibility which awaits the actualization possible through the linguistic frame of subjectivity. These latent possibilities are the metadata which is embedded in the nature of reality, and this metadata does not depend upon subjectivity to exist.

Thus, every true proposition was already a fact before it was stated as such. In saying this, what is meant is that the set of all true statements which could in principle be made about any given state of affairs is already attendant upon such a state in principle in the form of factual metadata which is a necessary extension of the reflexive nature of the structure of reality. Propositions can be true or false because they are always assertive in nature, that is, because they refer to and affirm primitively representational entities which are embedded in the very structure of reality itself. Actual propositions which turn out to be true are just those propositions which are factual, i.e. report a fact. In order to report a fact, a proposition must affirm a picture of reality which corresponds with how things actually stand, echoing the factual metadata and re-presenting that which is already the case.

The reference of an actual proposition is thus twofold; first, it refers to a particular reflection of the nature of the world, and second, it refers to that reflection's being-the-case. Thus, it asserts that the reflection corresponds with things as they stand in reality, and in so doing, it entails a judgement: do things stand as they are said to? The assertive nature of a proposition therefore engenders truth-functionality, and consequently one has not fully grasped the reference of a proposition unless they have judged whether or not it is so. This is because the proposition considered in the abstract has an incomplete reference, since the second aspect of reference is not carried through until the act of judgement assigns a truth-value. This truth-value is indeed where the mind ultimately lands, but it is only a minor aspect of the reference. This explains Frege's confusion on the matter.

For, after all, it is only when we compare the reflection with the way things stand that the context is bound and the reference is thereby completed. Consequently, it is clear that a true proposition and a mere proposition are only identical with respect to the reflection to which they refer, not with respect to the judgement aspect, which in the one is completed and a truth-value assigned, while in the other it is incomplete and the truth-value is left ambiguous - an empty place in the equation. This is why it seems unnatural to say that the true proposition that aliens exist is the same as the proposition that aliens exist simpliciter, though in a sense they really are the same.

In the performance of this judgement, however, we come to the other end of our truthmaking relation, and here what we are after must be facts. Yet what are these odd entities upon which so much is thought to rest, and can we in the end be trusted to know what are and what are not facts, given that science is only provisional in nature and therefore the set of propositions which are accepted as factual is constantly evolving and changing?

Actuality and Factuality

In the following, true possible propositions are routinely identified with pristine reflections, which are thereby called true reflections in order to mark the conflation. This is because, for the purposes of truthmaker talk, the conjunction of the reflection with the possibility of its assertion is implicit in the context of the relevant meaning of fact; this is to say that fact refers not only to the states of affairs which 'in fact' *obtain*, but also to all those statements which could rightly be affirmed of these states of affairs. Hence primary and secondary facts; (1) facts and (2) facts-about-facts. But what, after all, is a fact? This is what we will attempt to articulate forthwith.

A fact, in the first instance, is an extant piece of data/state of affairs, and in the second instance, a true representation thereof. Thus a fact is anything that exists, anything that happens, and most importantly, anything that is true. Because a fact is anything which is true, facts encompass not only all the true propositions which are actually articulated in practice by some linguistic agent, but also every true proposition which could in principle be affirmed about reality, as well as the entities, relations, processes, etc. which they concern. If some proposition reports a fact and affirms it, then that report itself is factual - the true proposition is also considered a fact.

Consequently facts can be understood as ways that the world is, states of affairs that obtain, or more broadly as genuine features of the local manifestation of the enigma of Existence as an environment. Every aspect of everything which is the case constitutes a fact, and so does everything which could truthfully be said about those states of affairs. These facts, which all hang together, collectively constitute the self-disclosure of the terrain of the universe, and the totality of this hanging together is called Reality; it constitutes all there is. Thus every actual statement, true or false, is a fact insofar as it was an actual event which occurred. But, some subset of these facts will be facts two-wise. So, to summarize, facts refer to states of affairs, their constituents, and everything which could in principle be said about such things, true or false, though especially true such statements.

To clarify the preceding statement about twofold facts, it must be admitted that it is eminently reasonable to think of an actual statement which is also true as being more factual than a merely actual statement. This is because a true proposition is always a fact, even before it is uttered, whereas a false proposition is only a fact if and when it is uttered, and it is the fact of the event, i.e. the utterance is the fact, rather than the factuality of the content which is expressed through the utterance. A true proposition on the other hand is factual two-wise: the utterance is a fact as event, and the content is a fact as an accurate representation. Hence even without being articulated in language, a true proposition is always a fact, by way of existing as factual metadata, though a fact is not always a true proposition, since propositions are always second-order facts which are about first-order facts.

A false merely possible proposition (a distortion) is thus a fact only in the weakest sense: it is a purely theoretical item. A true proposition, on the other hand, is not only a tangible fact itself, but it also points towards a pristine reflection; it is the fact of the linguistic act of assertion as to the shape of the world and the way things stand where that assertion marries up with the contours of reality and the states of affairs which really do obtain. A pristine reflection is a possible representation which aptly depicts the world, the intermediary link between a true proposition and the nature of reality. A true reflection is thus a piece of factual metadata, while a true proposition is the spatiotemporally conditioned articulation of some such metadata within a linguistic medium. A false proposition is therefore just the linguistic articulation of some reflection which is unfaithful to the facts. Similarly, a true proposition is the articulation of some reflection of reality which shows things as they really are.

To re-iterate, a fact is anything which is true, or is the case, or comes to pass, and due to the diversity of this description we must of necessity articulate a sketch of the nature and structure of factuality. In so doing we will attempt to articulate the various kinds of facts which, at various times, serve as truthmakers for our propositions.

The Ontological Hierarchy of Facts

Factual can mean general-actual (universal/necessary) and it can mean specific-actual (local/contingent). Given however that the majority of our fact-talk revolves around locally observable states of affairs (this is even reflected in our definition, as 'what exists' and 'what occurs' obviously refer to spatiotemporal entities and events respectively), facts are to be identified more with contingent truths than necessary ones; to be sure, necessary truths ARE Facts, but they are more like prerequisites for Factuality (or extensions thereof) than entities strictly derivative of that paradigm. The kind of facts with which we are primarily concerned are those which make up the domain of locality, the here-and-now. Therefore, for the purposes of the following discussion, we must allow that when the term 'fact' is invoked, what is meant is exclusively local/contingent/specific facts (facts as observable in physics and, more generally, in Nature). If, for some reason, we wish to refer to general-actual Facts, we will use this notation. It must of course be admitted that, in line with our previous use of this notation, what we are calling facts are ultimately contingent upon Facts, so this should be viewed as a bracketing, not an outright dismissal.

To clarify, first-order facts (also known as data) consist in the existence of various entities and events, as well as the properties they have and the relations which obtain between them. Second-order facts, otherwise known as logical artefacts or metadata, concern the true possible representations (pristine reflections) which could be made about the first-order states of affairs. As a subset of second-order facts we can imagine a composite category of tertiary facts which are hybrids of both first-order facts and second-order facts. This category concerns subjective constructions, things which are facts primarily in the first sense, but which have an added dimension of meaning which is not captured in that description whereby they are capable of attaining to degrees of truth, though not necessarily through accurately representing the states of affairs which already exist. This category contains such things as abstract objects as subjectively conceived, namely mathematical objects such as sets, as well as the kind of facts that pertain to fictional entities such as unicorns or Harry Potter. The most interesting example of a tertiary fact is that of true actual propositions, which (unlike their theoretical counterparts and their constructed alternatives) are facts in the first sense and the second sense at once, given that they consist of an event which really occurred (a speech act - an actual utterance), which is also true, meaning that it instantiates and asserts a reflection which is in fact pristine, and therefore contains no element of distortion whatsoever.

Everything which concretely exists is factual data, while metadata is the logico-linguistic layer of everything which can (or could) be said regarding everything which exists; factual metadata is therefore all that which can be said truly. The primary facts consist of data, while the metadata consists of derivative facts - facts about the facts, so to speak. The kind of facts we see as being most general are those we would most readily regard as principles - Factual Data. Those Facts which are general-actual are therefore best thought of as 0th-order Facts, serving as implicit axiomata of Existence rather than specific manifestations of the mechanics entailed by such axiomata. Examples of 0th-order Facts would be the laws of logic and all the necessary truths which derive verity from them by definition. These constitute the framework of possibility within which exists physical factuality.

Brute facts and their corollary, necessary truths are, despite indeed being Facts, nonetheless somewhat abstract to the reality of everyday life. Though principles do compose the complexity of the world and thereby help us to explain it to ourselves, they themselves are not the most salient facts which present themselves to our minds, though they are the most universal. The most salient facts consist in the concrete reality with which we are confronted, not the abstractions which we employ to make sense of it. If we are punched in the face in a bar-brawl, there are a set of facts relevant to the physics which was at play in our being punched in the face, but those facts pale in comparison to the experience of being punched, which consists in a set of facts much more immediate and demanding than any kind of abstraction formed on the basis of reflective reasoning. The principles of physics are thus more abstract from the perspective of subjectivity than the facts of experience, i.e. the actual events and interactions between extant entities. This seeming priority of the events themselves is a perceptual reality despite the fact that the relevant physical principles are of course the necessary preconditions for those specific events as well as the logico-mechanical framework through which they were realized in practice.

From this it can be seen that the more general our conception of facts becomes, the less are we talking about what the everyday person means when they speak of 'the facts'. This is why we initially focused the discussion around the notion of facts rather than that of Facts, because it is typically facts which are the relevant truthmakers for our propositions. This scoped-in version of facts, then, is what we must explore further if we are to complete our investigation of this idea that propositions refer to and thereby affirm reflections of reality. Before we move on, however, we must address the elephant in the room, namely the negative side of this equation, and thus the remainder of these reflections of reality: distortions. What is it that makes false propositions false?

For example, the question might arise as to whether there can be such a thing as negative facts? After all, it seems reasonable to ask what the truthmaker will be for the proposition that there are no unicorns, and on the usual version of the truthmaker view, where facts are construed as one-dimensional in nature, this does indeed seem like a problem, for how are we going to conceive of a fact such that there are no unicorns. There are of course a number of possible ways of proceeding, but many of them are fraught with difficulties. Far better to come to terms with the essential nature of both facts and propositions in order that we might be able to identify a suitable truthmaker in this way. But does (or even can) such an attempt ultimately succeed? This will depend, it seems, on the precise gloss which is given to the subset of metadata which is to play the role of negative facts.

The Anatomy of Metadata

As has already been mentioned, true propositions, possible or actual, are made-true by corresponding with Pristine Reflections. Pristine Reflections are best thought of as primitively representational entities that flawlessly render the states of affairs which obtain in the world, and they are as consequence to be identified with factual metadata. False propositions similarly refer to reflections, but these reflections are those which warp or distort the nature of the entities and relations which exist in fact, and consequently distortions can be distinguished into two categories, namely those of counterfactual metadata and contrafactual metadata. These are different degrees of distortion.

Counterfactual metadata is to be understood as an analogy with counterfactual reasoning, which concerns thinking about ways the world could have been, but in fact is not. In other words, it involves considering hypotheticals about what would have been true had the world been different than it is, or had events unfolded differently than they in fact did, and therefore counterfactual metadata relates to those possible representations which, with respect to the facts of any given world, diverge to a greater or lesser extent from the pristine reflections of that same world. Contrafactual metadata, on the other hand, concerns those possible representations which are so distorted that they depict the entities and relations of the world in a way in which they could not possibly stand (or perhaps they even fail to depict anything at all). A contrafactual is thus something presupposed to be false.

To summarize, pristine metadata refers to those possible representations which flawlessly depict the way things are. Counterfactual metadata consists of all those possible representations which are not in fact true of the local universe, but which are not too far off such that we can recognize that they could have been true of it or instead of another similar such construct. Contrafactual metadata concerns all those possible representations which are so distorted that they could not possibly be true. These three comprise all the species of the genera Reflections.

Conceptual Circumscription

So - have we come to grips with the details of truthmaker theory? We have at least gone into more detail about what it involves, but if we achieved understanding, it was at the cost of complicating our linguistic schema by positing primitively representational entities which are a part of the world itself. Yet, it should be obvious how intuitive the existence of such 'logically possible representations' would be, since there is nothing more remarkable about the existence of all the facts about a world than there is about the existence of the world itself, especially sans said facts about it - surely it would seem far stranger to think that the world exists but that such is not a fact. Indeed, in the context of DMTheory - wherein our locally observable world is thought to be merely logically possible, and not special in the sense of uniquely manifest - such metadata is, in fact, exactly what we would expect. After all, DataLogic provides a framework for recognizing that Logic is the structure of Reality itself.

Well, apart from the suitability of the inference to the existence of logically possible representations, what have we learnt from our foray into truthmaker theory? We have realized that the distinction between sense and reference applies to declarative sentences as well, but in rather a different respect. We know that Frege thought the sense of such a sentence was a thought, and that its reference was a truth value. Frege's 'thought' has been split up, on the one hand into the individuated mental contents which are thought by a thinker in a certain context, at a particular time and place, and on the other hand into the proposition by which such thoughts can be 'shared' with one another. Both of these however are tokens of the type which is the reflection that is referred to.

It was described how, by means of a proposition, individual thinkers can 'lock on' to the correct reflection, and that it is when multiple people have their minds aimed at one and the same reflection that they can meaningfully be said to share the same thought, or to believe, doubt, etc. the same proposition. Hence, it is clear that it is this reflection which must be the reference of the declarative sentence, and that the proposition must therefore be the mode of presentation of that reflection. This is why, as we saw, the truth-value cannot be the reference of the sentence, because such value cannot be assigned unless judgement can operate by way of comparison between the picture presented by the proposition and the context of which it is asserted. This was made clear by the consideration of how sense and reference functions in the context of names alone vs. names-of-which some property is predicated. We saw that only these latter things can be truth-functional, for names do not assert anything of anything else.

Yet, after all this, does it not seem that Frege was right in a way, and that this is all a merely terminological distinction, however profound that might be supposed to be? Perhaps. It certainly seems to be the case that both the sense and the reference of a declarative sentence have both a minor and major aspect which, upon further analysis, prove to be the basis from which Frege drew in constructing his schema. While the major aspect of the sense of a declarative sentence is the structured complex of senses which comprises the proposition, its minor aspect is what is responsible for its membership within the grammatical category of 'declarative'. This, of course, is that it possesses an assertive force, which - combined with the major aspect of reference (the reflection) - is what is responsible for the minor aspect of reference, namely the truth-value. This falls out of the synthetic judgement.

It is, as we have said, only by way of comparison between the reflection and the context of which it is asserted that we are able to ascertain whether in fact it is true, and in this respect what we are asking after is of course the facts. We learnt about the anatomy of metadata and the various species of facts, and so now we have a much clearer picture of what is involved in terms of truthbearers and truthmakers both. But what then is this relation which stands between our now illuminated entities, that of truthmaking itself? Is it just correspondence, or is it instead one of the other options? Obviously the position of the author is clear, however before we conclude our discussion on truth it seems pertinent to consider the available perspectives both on truthmaking itself, and the broader issues of truth theory. What, in the end, is the correct way to think about truth, and is there even such a thing? Does it not seem a bit queer that we should be asking after what is, in effect, the 'true' theory of truth?

Corroborating Correspondence

Although the thrust of this section will be to argue that, in fact, the correspondence theory is correct, at the same time it must be acknowledged that it is only correct in the sense that it is the primary one, of which the others are clarifications or special cases. This means that the exclusivity which is typically implied by the phrase 'the True theory of truth' cannot here be thought to apply, since the goal of nominating correspondence as the best theory is to provide a framework within which the other theories of truth will be able to shine. Thus, as we work our way through the various theories of truth which are on offer, I will be contextualizing them with respect to the implicit commitment that has been maintained throughout this section of the discussion, namely that correspondence with Truth is the fundamental mark of a true proposition. Once I have completed the survey of the schools of thought, I will discuss correspondence in more detail before turning once more to truthmaker theory to round things out.

Beginning once more with the deflationary perspectives, which of course include such ideas as postmodernism, relativism/subjectivism, the semantic theory of truth and a constructivist lens on truth, it must once more be emphasized that these ways of construing truth are intellectually bankrupt as far as the essence project is concerned, and often come up short even in relation to the language-act project. The semantic theory of truth is, depending on the interpretation given to it, either mildly informative or a disquotational copout - either it is viewed as clarifying some of our logical and linguistic practices surrounding truth, in which case it is often regarded neutrally by philosophers interested in the essence project, or it is intended to be a substitute for a heavy-duty theory of truth by offering up these analyses of logical practices as if that's simply the best we can do - it's not.

Similarly, a constructivist lens on truth, like a postmodern lens, can contribute meaningfully to our understanding of the world only when the scope of its claims about truth are appropriately constrained. Deflationary views more generally are often attempts to hand-wave the problem away rather than genuine contributions in themselves, and thus there is not too much to say about them. Moving on, then, to pragmatic theories of truth, the reader will know we have spoken at length on this subject already, so we will of course by relying on some of our foregoing remarks when we get to the section on correspondence. This school of thought has had much to say about truth, and although it exhibits a narrow and exclusionary focus upon the speech-act and justification projects, the fruits of the labours undertaken by its progenitors speak for themselves in term of the salience of their insights.

Unfortunately, the innocent neglect of these theorists with respect to the essence project has spawned a whole generation of thinkers who think that they need not posit anything more than brute utility as the explanatory fulcrum of their worldview, with the result that they become very sophisticated - in the literal sense of sophistry - such that they become blinded to the lacuna which lies beneath the foundations of their castle. This is why I derided them superficially with the term 'true enough', because in the end 'true enough' is nothing other than a sort of expediency, a kind of deferral or bookmarking of the truth because, for the time being, it is not necessary for one's practical purposes. Though the insights of the pragmatists are certainly respectable and ought not be trivialized, one need not ignore the glaring holes within the pragmatic theory of a concept as important as 'truth'.

Next up, there's the identity theory of truth, the thrust of which effectively denies that there can be such a thing as correspondence, because it is thought that there is not enough of a gap between a fact and a true proposition (indeed, no gap at all) to exploit for explanatory purchase. In other words, it is wondered how it can be that a fact can 'make' a proposition true, given that a true proposition just IS a fact. It might help a little in illuminating the frame of mind at play here to quote a line from Frege which is often taken out of context in this debate by those who believe Frege himself might have been an identity theorist, though nothing could be further from the truth:

"'Facts, facts, facts' cries the scientist if he wants to emphasise the necessity of a firm foundation for science. What is a fact? A fact is a thought that is true." - Frege

On this theory, a declarative sentence is supposed to be true just if its content is identical with some fact. Yet facts are obviously not identical with words, statements, thoughts, etc. Words can express a fact, and we call them true when they do so - sometimes we even say that the words themselves were factual. A truth and a fact are, in some regard, the same - we saw as much in our discussion of the anatomy of facts. But what is important to realize here is that the fact that the words express is a different fact to the one which is manifest by the statement itself - the fact which the words express is some state of affairs. The state of affairs which consists of the linguistic report itself is obviously not identical with the state of affairs that the report is ostensibly about.

Actual (true) propositions could be conceived of as identical to the possible (true) propositions which they instantiate, and (although it is a stretch) these might even be imagined by some to themselves be identical with the possible representations simpliciter. The truth of the proposition, actual or otherwise, does not lie however in being identical with just any possible proposition, but rather only with a possible proposition which constitutes a pristine reflection. Only such a proposition can constitute factual metadata, and therefore we see that no matter how far the gloss of identity is taken, it must ultimately end with a recognition of the consistency that obtains between the primitively representational entity and that which it is a representation-of. A reflection in a lake, no matter how perfect, can never be identical to the night sky above, and so too must it be with true propositions.

Our last item before we return once more to correspondence proper is that of coherence, a thesis which initially seems implausible to most. On closer examination however, what one finds is that coherence is not only a special case of correspondence, but that there are certain contexts in the real world in which the coherentist analysis of the truth of certain propositions appears the most applicable. Before I give such an example, however, it would be appropriate to clarify what I meant when I said that coherence is a special case of correspondence. The coherence theory of truth is the idea that what makes something (e.g. a belief or a proposition) true is cohering with a set of similar entities - beliefs or propositions - which are also held to be true. Although if taken as an approach to the essence project, it fails miserably, this idea is in fact rather promising in connection with certain constructed contexts such as fictional truths, as well as certain mathematical or geometric truths. But what is 'coherence'?

The usual way of explicating coherence is to talk either of consistency or of entailment, wherein the candidate proposition or belief is thought to be true either because it is consistent with the set of propositions or beliefs that are already held to be true, or because it is entailed by that set of propositions/beliefs. For our purposes, each are probably equally relevant, as it seems plausible that both of these ways of thinking are factors which might come into consideration, to a greater or lesser degree, depending on the exact constructed context. With regard to a truth about Harry Potter the character, for example, we would expect to see entailment with the claims made by the author themselves in the canonical story, while the permissibility of fanfiction might be evaluated along the lines of consistency alone. The issue with consistency alone of course is that two candidate beliefs can both be completely consistent with the canonical set of propositions, yet mutually inconsistent; yet it is obvious that this poses no issue in relation to fanfiction, and in fact is what makes this type of fiction possible to begin with.

In a mathematical or geometric context, on the other hand, it seems that although entailment is preferred, consistency is a well travelled path when it comes to mapping out new fields of mathematical study. Oftentimes, in mathematics - and sometimes in theoretical physics - a model will be proposed and taken as an object of study simply because it appears to be consistent with the various canonical postulates of the relevant field. When, however, it is shown to be inconsistent with observations (as in physics) or when instead it proves to lead to irresolvable puzzles (as in mathematics), this initial openness to a consistent addition in a field about the study of technical definitions and operations is replaced by a conviction that, although the field is by nature constructed, we appear to have taken a misstep. It's hard to see how we would make sense of this intuition, cited time and time again by mathematicians, unless we hold some implicit a priori commitment to the inherent intelligibility of all things.

This commitment to the intelligibility of things rests upon our well-founded conviction that logic is supremely effective in helping us to navigate the world ultimately because it is derivative of the regularities which are constitutive of the fabric of the cosmos. Thus, when our choices in some constructed context lead us to logically problematic outcomes, we will backtrack and try another path because we are always guided by the dream of reason, which sees the world as a unity that makes perfect sense, an immaculate mystery though it yet remains. Coherence is therefore a special case of correspondence because, by making true beliefs those which are consistent with or entailed by a set of beliefs or propositions which are taken to be true, true beliefs are therefore just those which correspond - rather than with the world - with the collection of propositions or beliefs instead.

Our special case of correspondence having now been fully articulated, we can move on to the more general notion of correspondence and give a final summary of our findings. The correspondence theory of truth is of course the general notion that what makes propositions, beliefs, sentences, thoughts, theories and so on true is their standing in a relation of correspondence with reality, wherein, as [the item] signifies, so it is. Correspondence is of course that which is posited in order to explain the possibility of creating leverage which then leads to traction on the environment. Operational truth is illuminating with respect to the mechanics of this leverage, especially when clarified through Dewey's insights into the nature of correspondence. He describes correspondence primarily as a kind of contiguous complementarity, rather than the traditional conception of an isomorphism (partial or complete), and thus he is the only one of the pragmatists to contextualize utility in relation to the overall shape of things.

In this respect, it is helpful to think of the difference between the truth which can be achieved by a proposition and that which can be attained by a theory. Although similar in many ways and, as we shall see later, intertwined on an intimate level, these two types of truth exhibit a certain distinction which is relevant for clearing up some of the confusion surrounding the exact nature of correspondence. For, whereas a proposition is said to be true just insofar as it accurately represents the state of affairs which it is said to be about - clearly the kind of isomorphism which people are used to imagining when they hear the term correspondence - a theory on the other hand consists, not so much of a set of propositions which are true (although this is part of the content of a theory) but, more importantly, in a description or model of certain structural regularities which are thought to be particularly relevant to the minutiae that compose the content of individual (true) propositions about the domain in question.

This type of correspondence would seem to be more of a mixture between the kind of isomorphisms that make individual propositions true, and the kind of contiguous complementarity which is the primary signature of effective or useful instrumentation. This is seen most saliently for example in things such as a nail and a hammer, or a screw and a screwdriver, although the principle can be extended to apply more generally and still holds. That principle is simply that, when it comes to creating leverage or traction upon reality, what is best is not always an isomorphism, although one might well rely on a description containing such isomorphisms to inform some design. The design itself however will be such that it might take advantage of the dynamic mechanics of the phenomena in question, and to the extent that it succeeds in this, it will likely be through contiguous complementarity with them.

Both of these are forms of correspondence, and there are more forms than just these two; these are simply particularly common notions of correspondence which cover an extremely wide range of cases. Whereas propositions correspond with reality when the representation they affirm displays an isomorphism, partial or otherwise, with some extant state of affairs, theories are true partly in this way, and partly by way of contiguous complementarity, both of which together add up to what I like to call 'points of contact'. That is, what makes a certain theory work is indeed that it corresponds with reality, but this hybrid correspondence is best described as 'making contact' with the world. What one makes contact with are factual features of the world, recognizable as particularly salient existential landmarks. These are conjunctions of facts, hinting at a convergence of structure.

These factual features of the world make true our theories, to the extent that they are true, in much the same way as the relevant states of affairs make true our propositions about them (if and when they picture them properly). The various insights on correspondence which have been collected throughout the course of this section of the discussion must no doubt be percolating away in the back of your mind, and the best way to bring them all to a boil so that they can crystallize into a solid substance is by looking more carefully at the truthmaking relation which we've mentioned so many times. We will thus perform a quick survey of the available models of truthmaking.

The original idea of truthmaking is perhaps the most clear and yet the most obscure at once, namely that truthmaking means that some things are true 'in virtue of' others being the case. This is not given much attention in the SEP article, however this will be rectified in our own treatment of the issue; we will return to this account at the end of the section. Secondly we have truthmaking as a kind of entailment, where something is a truthmaker if its very existence entails something which is true. Of course, on the face of it this does not seem too dubious, however when it is given a technical gloss one quickly realizes that entailment is the sort of relation which always lights upon representation at both ends. Thus, it seems immediately that, at least as a candidate for the nature of truthmaking, entailment does not have a lot going for it. On the other hand, it is plain that whatever truthmaking turns out to be, entailment and it will enjoy a rich relationship, and this must therefore be kept in mind.

Thirdly is the notion that truthmaking is necessitation, or - roughly - that a truthmaker is a thing which necessitates something else's being true. Initially, this too seems promising, and it is less obvious that there is a problem with translating the concept into technical language, however (as the discussion in the SEP shows) there are concerns surrounding whether it is plausible to think of truthmaking as necessitation. More specifically, it is thought that - given that any contingent truth or entity whatever entails (and thus necessitates) any given analytic truth - this view of truthmaking threatens to make the leftovers in the back of my refrigerator a truthmaker for the proposition that '2 + 2 = 4'. But there seems to be something obviously wrong with this suggestion, and therefore there must be something problematic about this account of truthmaking.

Fourth on our list, and first among the genuinely promising candidates, involves a refinement of the necessitation schema to include a relevance constraint; this version of the theory is referred to as truthmaking in terms of projection. It involves a degree of technical detail which is prohibitive for an treatment of this length, but the basic thought is that, by adding to the aforementioned schema a constraint that the necessitating thing must also be that which the relevant judgement 'is about', we are able to avoid the issue of over-generating truthmakers for necessary truths. The primary issue for an account of this type is that relevance itself is a notoriously difficult-to-pin-down idea, and the value of explicating one vague conceptual construct (truthmaking) by way of an appeal to a different yet equally opaque one (relevance) is somewhat dubious. Nonetheless, it must be admitted that this does seem to go some ways towards resolving the apparent issue which arose from the earlier definition.

Fifth we have truthmaking as relying somehow upon the idea of essential truths, so that "a truthmaker of a proposition is something such that it is part of the essence of that proposition that it is true if that thing exists". Of course, a willingness to countenance 'essential truths' immediately puts us in dubious territory in the eyes of some, since these can only be mind-independent abstract objects (propositions). The SEP explains, "If truth-makers are implicated in the essences of truth-bearers then truth-bearers can neither be sentences nor judgements. Truth-bearers of these kinds only bear their representational features accidentally; they could have been used to say or think something different, or occurred in contexts where they lacked significance altogether. Since they could have meant something different, or nothing at all, the truth-makers of these truth-bearers can hardly be implicated in their essences. Accordingly truth-bearers that essentially implicate their truth-makers must be creatures that could not have shifted or lacked their representational features. They must be propositions in the deep sense of being items that are incapable of meaning anything other than they do." This proposal, although a little arcane, has something of a ring of truth about it, and thus ought to be included by the integrative theory.

The penultimate variant is axiomatic truthmaking, which seeks to provide - rather than a definition of truthmaking per se - an analysis of the systematic liaisons the idea of truthmaking has with other concepts on which we rely and upon which we have an independent handle. This is a pessimistic response to the failure thus far of providing a reductive analysis of truthmaking; rather than seek to improve the available accounts, one instead infers that perhaps there is some kind of primitive here, which simply resists any kind of reductive analysis because it has no parts simpler than itself. While this interpretation seems to me wayward, nonetheless it is entirely possible that it will bear fruit the likes of which would have been impossible otherwise. For by means of examining the systematic connections between concepts, we are able to shed light upon the whole conceptual apparatus. We will return before the conclusion of the essay in order to give a more detailed account of the nuance intimidated herein.

Last but definitely not least, we have truthmaking as grounding. This is perhaps the most fertile of all the conceptions, and this - in combination with the essence and projective accounts - will be the basis of the integrative solution that will be presented at the conclusion of this lengthy discourse about the multitudinous nature of truth. The SEP paraphrases grounding as "non-causal metaphysical dependence" and, although this is indeed what grounding consists in, such a definition strikes my mind as somewhat vague, chiefly because the average person is not going to know what to make of the complex of terms. The difficulty is mitigated to some degree if we remember the way truthmaking was initially introduced, namely through the terminology 'in virtue of', as this grants some proximate point of reference between the lay person and notions of metaphysical dependency, which have no currency for someone with no interest in abstruse speculations. On the other hand, many people are familiar with the phrase 'in virtue of', and thus already have some sense of its meaning outside of philosophy.

To say that some proposition is true 'in virtue of' some fact is just to say that the reason the proposition is true is because some fact obtains, where a fact is understood as some state of affairs. For example, the proposition p that 'the cat is on the mat' is true in virtue of the cat's actually being on the mat; the fact that the cat **IS** on the mat is what makes the statement to that effect true. Although this may draw much criticism due to its seemingly vague nature, the notion of virtue is in fact a roundabout manner of speaking about a kind of principle which things are due to. This is what we will explore more thoroughly through the lens of grounding during the conclusion.

Summing up, then, what can we say about truthmaker theory as a whole? To show how the different ideas of truthmaking may be easily integrated into a cohesive conception, we will primarily focus upon the notion of grounding and examine in connection with this the essentialist and projection-based approaches to truthmaking as a way to shed light upon the systematic liaisons truthmaking engages in with respect to other familiar concepts from logic and philosophy, such as entailment, necessitation and essential truths. In this way, we will be trying to cover all our bases in terms of giving not only a grounding-theoretic conception of truthmaking, but also paying heed to the axiomatic emphasis on the various ways in which truth-talk can illuminate other concepts we employ.

Grounding (in the context of truthmaking) is best understood as a kind of non-causal metaphysical dependence which fulfils the following criteria (taken from the summary of the axiomatic account found on the SEP article):

Factive: If F grounds (the truth of) P, then P.

Existential: If F exists, then F grounds that F exists - here, the that-clause designates a (true) proposition, namely "F exists".

Entailment: If F grounds P, and P entails Q, then F grounds Q.

Thus we can see that if the truth of the proposition P that 'the cat is on the mat' is grounded by the fact F that the cat is indeed on the mat, then the factive condition is fulfilled since the truth of the proposition cannot be grounded if the proposition is not true. Similarly, if the state of affairs involving the cat being on the mat does in fact exist, then this fact will ground the truth which reports that such a state of affairs obtains, and therefore the existential requirement is fulfilled. Finally, if there is a tick on the cat, and the cat is on the mat, then the fact that the cat is on the mat will ground the truth both of the corresponding proposition P, that the cat is on the mat, and the corollary proposition Q, that the tick is on the mat. This analogy demonstrates that the transitivity of entailment is preserved by this approach to truthmaking. Grounding seems to match our intuitions - but what is it?

Before we clarify grounding, what might we learn about truthmaking from the other promising schools of thought, the essentialist notions of truthmaking as well as truthmaking conceived of as projection? Viewing truthmaking as projection helps to give us some sense of what kind of criteria might be important for evaluating whether an account of truthmaking is up to scratch. Intuitively, it is obvious that in order to be a plausible candidate truthmaker for some proposition, that proposition must be 'about' the truthmaker, or the truthmaker must at least be relevant to what the proposition is about. Therefore, our notion of non-causal metaphysical dependence is seen to mesh quite nicely with this requirement, because it seems likely that the concept of dependence picks out only things which in fact are strictly relevant to something being what and how it is. In fact, one way to think of dependence is that something can only depend upon that which is essential to its identity; if we think about it in this way, it becomes quite plain that dependence always involves being defined in relation to something else.

This naturally leads towards our next consideration, which concerns thinking of truthmaking as being a function of the sorts of facts which are essential to the constitution of some proposition. Since a proposition asserts some hypothetical state of affairs, the existence of the relevant constituents would serve as the sort of facts that would be essential to its truth. As we can see through an examination of the singleton set of Socrates, the idea of essential truths helps us to understand in what direction the dependency flows, because the discriminating power of the notion of essence makes sense of the intuition that his singleton set depends upon him in a way in which he does not depend upon it. This is plain in our recognition that it is not part of the essence of Socrates that he be a part of the singleton set, or any set for that matter, while it is part of the essence of Socrates' singleton set that he and only he be its sole member. And in fact this is even true more generally: that a true proposition corresponds with some fact(s) is essential to its being what it is, while it is not essential to the fact(s) with which it corresponds that they should bear some correspondence with a true proposition, or be corresponded with by one. This helps us to understand how it is that propositions depend upon facts, but not the other way around.

What is meant by the notion of one thing grounding another is precisely this notion of ontological priority or non-causal metaphysical dependence. Grounding is a very handy metaphor to express the notion of dependence, but this idea is expressed most eloquently in the PSR, the principle that "for everything which is true, for everything which exists, and for everything which happens, there is some sufficient reason which makes it so, makes it exist, or makes it happen." The very idea of propositions corresponding with the way things are depends implicitly upon the idea that our propositional activities are embedded somehow in that overarching way. Hence grounding can be seen as the prototype of truth-via-correspondence and causality both, and is itself, through the PSR, merely the result of the necessity of Relativity. And this naturally brings us right back around again to the Ground itself, and the attendant mountain of Truth which sprouts from it. What is the correct account of this mysterious spur?

The 'true' Theory of Truth

In trying to identify the 'true' theory of truth, if such a thing is even plausible, one must of course set out from the beginning with an understanding of what would make a theory of truth 'true'. For my purposes, what would be sufficient to call something a complete, comprehensive or 'true' theory of truth would be that it provides me with a framework through which I am able to identify, for any given truth, what is the reason or fact which is sufficient to make it so. More generally, the true theory of truth would be able to make the tentative claim that the truthmaker for every truth which is eligible to be made true is contained in principle within the description provided by the theory. For such a theory would of course give us a detailed enough map of the territory that, with it, we ought to be able to work our way backwards to the ground. This is what the phrase calls to mind.

The sufficient reason for all truths is ultimately thought to be the necessary nature of the Ground itself, and here we usually run up against the age-old objection - what if that transcendental ground is fundamentally conscious? To this I feel I must respond that it might well turn out to be that way, but I don't see much evidence in favour of that hypothesis; in fact, the whole purpose of this paper is to elaborate a conception in which such an assumption is not necessary. It's true that many instances of truthmaking and grounding turn on facts which are only facts because they are initiated or 'made so' by some actor, so naturally this is an intuitive way for us to process the world. After all, as social creatures many of the truths we care about are grounded in immediate sociological facts.

Yet here too we can see, hiding away, the self-same concept of grounding and ontic priority/metaphysical dependency in the way in which the notion of sociological facts is fleshed out. Sociological facts are obviously facts about the behaviours of social animals, namely humans, where human is a kind of biological creature, and where a biological creature is a kind of emergent phenomenon which arose somehow from the interaction between large-scale aggregations of particles and the complex chemical structures they became capable of forming. In just the same way, these physical and chemical facts must be explained in terms of things which are possible and have been (somehow) actualized, where the implicit paradigm which is therefore being appealed to is one which is logical and/or metaphysical in nature. On it goes, until ultimately we ground out, as we always do, in the Ground.

Therefore, while the ground of an effect is thought to be its cause, the ground of movement has, since time immemorial, been thought to be a mover - a prime mover. Going with this supposition for a moment, it is notable that this is an example of efficient causation, however a movement might ultimately find a higher ground in the reason for which the mover initiates the movement. In this case, we would have a final cause, but a final cause of course cannot be understood except through recourse to the nature of the agent for whom it is a goal. The nature of this agent then either grounds out in some formal facts about him which cannot be other than they are, or it grounds out in chains of efficient and material causation which are responsible for his being-thrown in the world just as, when and where he in fact is. Therefore, unless there is some compelling account of the specific nature of the formal cause for the existence of a necessary being who is also a conscious agent, it seems rather dubious.

What's more is that the metaphor of grounding clearly expresses a concept richer in scope and importance than causality simpliciter, perhaps even providing the paradigm within which causality makes sense. In truth, grounding is best understood as being a particularly vivid way of expressing the concept of dependency. Causality, with its temporal connotations, clouds the image of grounding, but dependency need not be conceived in temporal terms, and here grounding is given full recognition. Grounding is that 'in virtue of which' anything else is so, happens, or exists. Hence grounding can be seen to be identical with the PSR, which is itself the consequence of the principle of Relativity. In what follows, we will conclude our discussion on theories of truth by considering once more our commitment to Truth as such, as well as the notions of anchoring and tracing.

The Dream of Reason: Re-Integration

Reason is quite the curious term, meaning at one and the same time a myriad of things. It refers not only to those facts which are sufficient to make something the case, but also one's goal, motivation or rationale for acting in a certain way, the activity of working through a problem and figuring out the answer, as well as the capacity itself to engage in the myriad behaviours involved in modelling the world, especially the capacity to derive conclusions from premises while preserving the truth therein. The polysemy of this word is particularly significant because, like the activity of reason as a faculty, it appears to split reason up into various different things, however the very dream of reason is to unify all the worlds. Thus what we observe is, on the one hand, predictable as ever, yet on the other absolutely remarkable, as the convergence of that polysemy defines the paradigm of possibility.

What is meant by this is simple and yet arcane at once, because on the one hand, reason refers to the ground and origin of anything and everything which is possible, and therefore it always is that factor which unifies all possible worlds, while on the other hand, it is an acknowledgement that reason as a faculty involves each of us as subjects having our own unique perspective. This create a little bubble all of our own, a perceptual world within which we exist and in which others appear only as projections from the beyond. All these different bubbles refract the rays of reality differently, and each person construes what happens to them in their own idiosyncratic way, however what remains consistent is that each bubble floats upon the same ocean, and is ensnared within the same network of light as every other bubble. Reason as faculty indeed operates in a way that separates us from our fellow man, however reason as ground offers us a touchstone for remembering that everything is and always was connected.

As faculty, reason engages in analysis, splitting up the world in order to make sense of the pieces. The goal of this is to divine the reasons (as grounds) for things, which will hopefully allow one to put the world back together again and know for the first time one's place in that grand scheme, one's reason for being (the final cause of one's own existence). The intuition at play here is that, before the mind begins its process of discrimination, the world is an undivided whole, and that, just as with a story, no matter how vivid an experience may be, there is something more than the story or the experience, something that the story and experience are of and about. This of course is the classical distinction which plagues rigid phenomenologists, namely that experience is never self-sufficient, but must always be experience-of. Experience of what? Of course, it must be experience of the world. In this what can be once more discerned is that familiar notion of dependency, the ontic priority and directionality of truthmaking.

While grounding is a relation of non-causal ontological or metaphysical dependency, *the* Ground is that on which everything ultimately depends. Hence, the nature of the Ground (DataLogic) defines the nature of Truth, and it is with Truth that we hope to align when we deploy propositional attitudes. Those propositions which *do* correspond and therefore represent the world rightly provide an anchor in the mountain of Truth, and when we consistently lean upon such propositions in order to guide the experimental practices which aid in the evaluation of the reliability of our beliefs in novel circumstances, this is how we acquire knowledge. Knowledge is thus made secure (anchored) by true propositions which are themselves grounded in the states of affairs that they are about. Though knowledge is indeed justified true belief, this formulation is known to have difficulties, yet DMTheory advocates for supplementing the notion of justification with a relevance constraint of the sort just discussed.

More specifically, this relevance constraint should concern whether the reason which serves as the justification for the belief reliably tracks some relevant feature of the world which would be sufficient to make the belief in question true. It is thought that, in this way, Gettier cases of 'knowledge-by-fluke' can be avoided by implementing the idea that, in general, the purpose of knowledge is to trace systematic regularities in the nature of phenomena.

Given such a description, any case of knowledge-by-fluke would fail to qualify as knowledge due to the incapacity of its justification to reliably track the relevant factual features of the world (namely, those the belief is about). Whereas practical knowledge concerns any sort of model or representation which reliably aids in the achievement of some practical goal, theoretical knowledge is more curious. Theoretical knowledge seeks the why of what works.

Theoretical knowledge is therefore a function of networks of propositions which reliably correspond with that which they are about, and just as a singular true proposition helps to anchor knowledge by being grounded in facts, so too does theoretical knowledge more generally receive its reliability by being grounded both in factual observations about phenomena as well as experimental investigations about the network of propositions itself, regarding what observations would be expected if indeed that body of propositions were in fact a true theory. True theories have more responsibilities, however, than true propositions, because true theories must not only report facts, but must also explain the systematic relationships between certain facts and predict the behaviour of facts which have yet to be observed, yet this is all made possible through the very same grounding relationship.

In this case, the dependency idea receives its most articulate expression in the PSR, which of course is a logical implication of the ontological primacy of Relativity as a principle. Yet it is in this primacy that we see shining through the reason that, in the end, all these different theories of truth turn out to be just different ways of talking about exactly the same thing. It is, in a way, the ultimate vindication of relativism that every perspective is a perspective on truth, and that every perspective on truth is a bona fide part of *the* Truth which cannot simply be disqualified or left out. Much philosophical talent is wasted trying to prove our predecessors and our teachers wrong, rather than showing how they and those who opposed them were, in a way, both right, since the Truth as such is of such a richness and complexity that it is inexhaustible, and contains every seeming contradiction.

You may remember from the beginning of our discussion on theories of truth my mention of the different projects pursued by various truth-theorists; we are now best positioned to appreciate the way in which each of these apparently contradictory theses about truth are actually each true in different ways, because each of the various schools of thought serves to illuminate a different perspective on both our truth-talk and our truth-walk. With one notable class of exceptions (deflationary theories), all the theories of truth have something to offer in terms of contributing towards an understanding of truth, because where our theories of truth appear to contradict one another, one need only remember Aristotle's example of the spinning top. It may indeed appear at first glance that the assertion that the little gizmo is both in motion and stationary at once is a contradiction, however as he deftly points out, it is in motion and yet stationary *with respect to different axes*, and thus there is in fact really no contradiction after all. In much the same way, our theories of truth are not as at odds as they might initially appear, because although they give the impression of mutually exclusive descriptions, in fact both are accurate.

More specifically, it can be seen that the two main projects which were identified at the beginning of this section of the discussion, namely the speech-act project and the essence project, harmonize perfectly with the distinction which was proposed in relation to the nature of our candidate truthbearers. With regard to the speech-act project, our analysis of propositions would appear to account well for the consistencies which are observable throughout those theories of truth that focus on the linguistic act and its ramifications and implications in the social sphere, while with respect to the essence project it is plain that our notion of reflections fits this bill to a tee. In addition, the connected discussion on the anatomy of facts puts a substantial amount of meat on the otherwise bare bones of what has historically been regarded as a relatively obvious analysis - so obvious in fact that it apparently never needed to be performed. Given the two intertwined entities, propositions and reflections, it seems we have all that we might require in terms of conceptual material, since the speech-act project is validated by the former's focus on the assertive nature of the proposition, while those who seek a solution to the essence project can rest easy knowing that, in reflections, philosophers have finally found a place to rest.

An integrative theory of truth could do much for our understanding of reality, and would provide an anchor for our claims to knowledge, as truth is well known as an essential ingredient in any adequate theory of knowledge. After all, one cannot know something if that thing is not true. Yet in what way will our theories of truth come together under one banner - what will provide the common context in light of which each separate theory will receive its due, and assume its place in the overall description of Reality as such? In fact, it was already alluded to earlier in the discussion, but under a different name: the concept of the Unus Mundus, one-world. This pre-theoretical intuition supplies us with the material required in order to knit together these disparate perspectives, yet it would serve us well to elaborate this idea more thoroughly and perhaps provide a depiction to aid in clarity.

Existence as such, the unus mundus, is the ultimate container - it contains everything which exists, including within itself all which is apparently contradictory. When we encounter a collection of facts, some of which are contrary to one another yet all of which are equally factual, we can be sure that there is some way of contextualizing those facts which renders them fit for co-existence. The logic of the world is such that every perspective has a claim to reality, each being a separate shard of the crystal which has never been shattered.

As an extension of this insight, it is imperative one remembers that, where contradictions are perceived to mutually obtain, there is always some higher-order logic supporting both which integrates them in such a way that each apparently contradictory facet is but a manifestation of this higher principle being applied in a consistent manner. Such a paradoxical resolution is all but guaranteed by the simple fact that, in the final analysis, both facts exist and therefore must fit into the general order of Existence, which consists essentially of eternal consistency.

Truth is nothing other than ***the*** Object of Existence, that in virtue of which reason as faculty is possible, and that which is the Ground and Reason for all the things which are. It is the convergence of all intelligible constructs, that from which they spring and that to which they point. Through the faculty of reason, we cast an anchor of truth and if we are able to make contact with the deep ground of Being, we stick fast and are able to manipulate our position in the constantly shifting sea of ephemeral phenomena. We seek after truth because it is so disconcerting to be floating adrift among the waves, to be without an anchor against which we can check our perpetual motion. Through chains of true propositions we can not only secure our grasp on life, but we can use the stability made possible through being connected to Truth as an opportunity to learn to read the stars and harness the wind. Then, when we should decide to draw our anchor back up, we can navigate the wind-swept depths more effectively than before. This allows us to explore distant shores and other ways of being and seeing, a transformative journey. What matters is being *able* to cast anchor, not perpetually remaining at bay.

Yet what any such explorer will find is that no matter how far one strays from home, one is always drawn back, as way leads onto way, they all recur some day, because every journey constitutes an orbit of that central star, that most enigmatic of mysteries, Truth itself. Trying to formulate an adequate theory of truth is therefore almost as ambitious as attempting to formulate a comprehensive metaphysical framework, however my thinking is that if you're in for a penny, you might as well be in for a pound. My efforts cannot hope to be definitive in either of these contexts, yet I hold out hope that my intellectual labours will have laid the groundwork for a host of new reality technicians, to use Edde Theory's term, because I believe that this is a mystery most noble and worthy of contemplation. I flatter myself to imagine that I have laid such a groundwork, and yet I do so hope. Good luck!

As a final note, always remember that the Truth is a profound and subtle thing, and there are many ways of speaking truly about it. Every different perspective is a perspective on Truth, and therefore a true perspective. Every perspective is a part of the Truth, and is therefore true in its own way. The puzzling project of philosophical inquiry is to imagine a world in which all these seemingly dichotomous, mutually contradictory facts, can coexist. Every perspective is a separate shard of that paradoxical crystal which has never been shattered.

Breaking the causal chain and transcending the circle of time

In this section, we will be discussing, clarifying and defending the central proposition of DMTheory, namely that the impossibility of Nothingness leaves no option except the necessity of Something. If indeed Somethingness is foundationally necessary as this paper supposes, then it exists outside of time and is therefore eternal. However there is a confusion which can be occasioned by a superficial appraisal of this idea, namely that the impossibility of nothingness 'causes' everything to exist, which it obviously cannot. This is because that which does not exist cannot participate in any kind of causal chain, and so something which is impossible cannot cause anything at all. Rather, it is precisely the impossibility of the alternative (namely, Nothingness) which means that it is always necessary that Something exists, because it could never fail to be the case. The reason that the existence of Something could never fail to be true is that there are no logically possible alternatives to that state of affairs.

That is, because Nothingness could never be the case, Somethingness could never fail to be, and therefore there is no need for causation, as something which cannot-be-otherwise need never come to be, and therefore cannot be caused. In other words, when we are speaking of something which is always already the case, the notion of causing it to be the case literally makes no sense, because it presupposes that it might not have been, which is an impossible situation. Therefore Being is eternal, because there are no logically viable alternatives to the presence of Existence; thus it can never begin or end, but always is. Such a simple solution is audacious to suggest, yet might it nonetheless prove true? What speaks in favour of it? What speaks against it? Let us take a look.

Some might object that all our work has been in vain, because this only tells us about our concept of nothingness, and says nothing about the possible primal reality of Nothingness itself. This amounts to an objection that the solution can never be considered definitive because it only gives us an answer within the prescribed limitations of human rationality, something which pales in comparison with the complexity of the world at large. Of course, in a way this is true - the only tools with which we can analyze the world are those of logic and reason, and just because something is inconceivable in our languages does not ipso facto rule it out as an ontological possibility. Yet, do we have any choice but to continue on the path prescribed for us by reason and logic? It would seem that unless we abide by the assumptions of logic, we cannot make any sense at all, let alone answer ultimate questions.

To elaborate upon how the systematic nature of the critique poses a problem to itself, let us consider any scientific theory. This critique, that the theory is only valid insofar as logic is valid, applies equally here, though it seems to have less force. Part of the reason for this is that our intuitive response is, "So what?" - what does it matter if our logic is only reliable insofar as the assumptions of the logic itself are correct when it proves itself to be reliable day after day through application and experience. Another reason that the critique has less force concerns the fact that a scientific theory will never incorporate logic itself as one of the essential entities which is proposed to exist, and although this is somewhat undercut by the fact that it is Logic, not logic, which I propose to be essential, nonetheless I acknowledge that in trying to prove the foundational nature of Logic, every derivation will ultimately assume what it is supposed to demonstrate, and thus beg the question - such is simply unavoidable.

Yet it is critical to note that the critics of this technique have no other suggestions, and similarly rely upon the principles to which I am appealing even to articulate their objections to what I am doing. This might seem like tu quoque, however I am not suggesting that the critique is invalid just because the critic is also engaging in the behaviour they are objecting to; rather, I am proposing that the fact that one must rely on logic even to critique it shows that our use of it is ultimately inevitable. In other words, I am attempting to demonstrate that although this critique is technically true, it fails to add anything useful to our understanding because we have no choice except to employ logic in attempting to formulate said understanding. It gets us nowhere to chase our tails regarding the warrants for logic; it makes much more sense simply to work with what we have and see where it gets us.

Given that we do not have any genuine alternative prospects for reasoning about the basis of reality, and considering that the only other option is simply to refuse to make an attempt because you believe it cannot be done, it might be worth simply bypassing this objection for now. If however you feel that this objection needs to be more thoroughly addressed, you can find a comprehensive response in the supplementary essay Critique of Method. That essay explores at length the various objections which are considered only briefly in this section.

Another objection which has been suggested in the past is that this theory is worthless, because it offers no testable predictions and has no obvious implications for enhancing our day to day life. Although identifying the testable predictions which are possible through the utilization of this framework will take time, I absolutely believe that this theory has the potential to generate meaningful predictions about reality which are in principle falsifiable.

As to the second half of the objection, this is simply untrue as far as I am concerned, and I believe I have given a demonstration of this in the section on the meaning of life which appears near the end of this document. The issue raised by this type of critic however is typically underwritten by a desire for tangible, measurable and observable outcomes which can be given the pragmatic stamp of approval. But even if there were no testable predictions, and even if it didn't improve your life, I believe it is worth knowing, if true, just because it is an insightful explanation.

Finally, some might object to the strategy employed in the derivation of our conclusions, suggesting that abduction is unreliable or that no linguistic description of nothingness is possible, and therefore any conclusions drawn therein are moot. To the first objection I would offer merely that sometimes this might be a necessary evil which is a requirement of the possibility of creating opportunities for the progression of our understanding, because there are certain aspects of the world to which we have no direct epistemic access, and yet which we have good reasons to wonder about all the same. Philosophy begins in wonder, and although it is reasonable to prefer more reliable means of deriving knowledge about the world where possible, sometimes it simply is not possible and never will be. Yet this is no excuse to simply abdicate one's duty to try to explain things, especially life's big questions.

To the second objection, namely that nothingness cannot be given a satisfactory linguistic analysis and that therefore conclusions drawn from such an attempt are moot, I can only offer this: perhaps the fact that it is impossible to define itself offers hints in favour of the thrust of my argument, namely that it is the kind of thing which, if it is, isn't, because for it to be is for it to fail to be what it is; to be in fact its opposite. But of course I have just gone back to the linguistic analysis which the critic distrusts. Yet it is difficult to see how his believing that a thing which is not even intelligible in language might actually exist could be anything but an appeal to ignorance, since an inability to support representation in language necessarily implies at least an impaired capacity to be the basis for warranted inferences about the world. And if such a description cannot serve as a basis for inference, then a hypothesis that such could in fact actually be the case must then appear even more dubious.

The intuition which is articulated and advanced within this paper is not in fact a new idea at all, although the formulation is perhaps more intelligible within the DMTheory brand due to the degree of work which has been put into articulately developing and explaining the implications of the central insight. That same insight has however been repeated by many minds throughout history, including several famous Greek thinkers who were part of the inception of the Western philosophical tradition. Aristotle famously wrote "to say of what is that it is, or of what is not that it is not, is to speak truly," which obviously means that it is possible to speak truly of that which is not (i.e. Nothingness) simply by asserting that it, in fact, is not, and Parminedes also can be understood as speaking against Nothingness with his ex nihilo nihil fit principle (from nothing, nothing comes/out of nothing, nothing comes).

Thus we can see that the recognition of the impossibility of nothingness is nothing new, and that if we take this insight seriously, it inevitably leads us to conclude that there must eternally be something. If we can believe this, then we are thereby committed to the acknowledgement that creation is unnecessary, not to mention impossible.

For those who struggle to conceptualize the resolution proposed by the DMTheoretic framework by means of which it is asserted that Somethingness always is, consider the following analogy. Imagine a light switch which, if switched off, will not only turn off the light, but somehow immediately delete from existence both the switch itself and the light it is linked to. Now imagine however that the 'off' part of the switch is simply not there, because that part of the switch already stopped existing and so the switch is always turned to on and in fact cannot be switched to the off position, because there actually is no off position to switch it to. This is the situation with which we are confronted in the case of Something vs. Nothing or Existence vs. Non-Existence; there really is no off switch, so the light is always on, because for there to be an 'off' state for existence, that state has to 'be' (on).

The derivation of specificity: Actual potential

It seems clear that there must be some explanation of how this specific world came to exist, and what determined that the variables of physics would have the exact and extremely precise values which they have been proven to possess. If in fact the explanation proposed in step 3 holds up to critical analysis, then it would suffice to explain how this is so, namely because all possible variations on physics exist at once, and this particular world is not privileged in its existence or somehow metaphysically special. I must admit, to my mind the explanation which has been proposed thus far does make quite some sense, but I must also admit that I am uncertain about it. I find it obvious that the shakiest step in the whole sequence is the final one, something that is reminiscent of the best arguments for god, in which the necessity of non-contingency is simply baldly equated with the specific image of god belonging to the tradition of the believer because the final step is just that difficult to rationally motivate. Yet the situation is not quite the same, for once one has a given image of God, the existence of this particular world seems to follow by fiat, while what is contentious here is precisely what follows when we only have a Ground.

In this particular area of the metaphysical dilemma, the theistic hypothesis really shines, because God dramatically simplifies any mystery we might perceive regarding the existence of this specific world: He freely chose to actualize this particular set of variables for reasons which we could never understand, but we can rest assured that all is well. There is, on the theological view, really no puzzle at all as to why this particular world exists - it is as simple as 'God chose to make it so', sometimes with the vague addition of "He judged it good." On the other hand, the naturalist is forced into one of two camps: either all possible worlds exist or there is some mechanistic process which singled this particular world out uniquely for reification. Of course, given the implausibility of the latter notion, we are impelled to consider the former; luckily this is exactly the solution which is suggested by DMTheory.

It is of course vaguely possible that one could specify a theory which falls into the latter camp, however chances are it will be more complex than what was proposed in step 3. Yet this may not be a weakness if there is a strong degree of confidence warranted by the degree to which the proposed mechanism lines up with empirically observable artefacts which we would expect to find if there was in fact such a selection process. This would be a good start when it comes to seeking out confirmations that this world might in fact be the only one there can be.

But are there however any such evidentiary artefacts which speak in favour of our own theory, and if so, what are they? Unfortunately it is difficult to be definitive about these things in such early days, however it is possible that certain quantum phenomena might be accounted for more intelligibly under a theory on which our world is one of many possible worlds - but then again, perhaps not. DMTheory may well guide a preference of interpretation for quantum mechanics, but it could also thereby be falsified if the view which it strongly endorses is shown to be in some way inadequate or false. Are there any more mundane aspects which testify to the truth of DataLogic?

One of the critical aspects of DMTheory is its implementation of the principle of relativity as a universal fact, something which rhymes quite well with our other most successful theories of physics, namely Einstein's theories. But relativity has been identified as a critical element of rationality and intelligibility for centuries, although it has never received quite the degree of prestige which is afforded to it by the perspective propagated herein. Within this paper, Relativity is not only cited as the essential nature of Logic, but it is also used to derive the laws of thought themselves, which is naturally unsurprising if logic is in fact a holographic or fractal principle of nature.

This ultimacy of Relativity is the pivot point upon which the entire derivation of specificity turns, because the theoretic is effectively the relative context and counterpart of the Absolute. Consequently if one is not compelled with the identification between Logic and Relativity, the third step will indeed seem dubious, because it will seem as a piece of unfounded speculation. Yet it is unclear how we can reject the identification without throwing the baby out with the bathwater, since relativity and structure are inseparably intertwined, and consequently to dispose of one is always to dispose of the other. Relativity is the principle of connection, and without connections there is no such thing as structure. On the other hand, if connections are reified and Relativity is seen as a foundational aspect of Reality, then the derivation presented in step 3 is more likely to pass the muster. But this is up to you.

In natural language at least, it seems to make sense that the theoretic - the domain of potential - must exist as a relative counterpart of actuality. In addition to this, the nature of the theoretic would seem to provide an adequate explanation of and solution to what is known as the Fine-Tuning problem. However, I acknowledge that this is perhaps not as intuitive to others as it might seem to me, and so I leave the ultimate decision as to whether or not this proposed explanation makes sense to my reader, who always knows best. Let me know what you think.

The question of God

It might occur to a religious reader to ask what makes the theory which has thus far been advanced preferable to a theistic view, and this is a reasonable and fair curiosity, especially because it may seem that I am doing an awful lot of work to arrive at a place where I could have started from if I had merely converted to one of the dominant religious traditions. As I mentioned in the section above, even in the modern day God remains the main contender in the realm of metaphysics, and a conscious creative agent is the traditional identification of the Transcendental Ground of Being. Theists therefore would be inclined to agree with me, but would want to take my conclusions about the necessity of a ground further than I think is justified. In many ways, the difference between the two ideas pivots on which version of the derivation you prefer, however there are a number of other factors which can be used to evaluate competing metaphysical theories. As mentioned at the outset, these are: simplicity, explanatory scope, plausibility, derivability from accepted premises, and fit with empirical evidence. Perhaps the most ambiguous of these warrants is that of self-evidence vis-a-vis the foundational axioms of the theory.

Let us then begin our examination with this, as in fact many theists will cite this as an obvious proof of God: "does not creation itself testify to the existence of a Creator?" If God is simply identified with the transcendental ground of being, then it is questionable whether in fact it is reasonable to call him God, and if he is a conscious creative agent then it seems pertinent to ask what evidence points towards these characteristics? One might wonder, for example, who created God, and although the theist can just respond that God is defined as the Ground, it is not clear at all that the Ground should be defined as a God. In fact, it seems plausible that the existence of God could in fact be a consequence of the Ground, rather than identical with it. Furthermore, it is unclear why the notion of conscious creation is necessary at all, given that any derivation of the Ground suffices to get us to the existence of Something, and the existence of Something is already a basis from which our particular world might spring.

Is it really self-evident that the basis of existence is conscious and creative? Not to me it isn't. On the other hand, is it (or does it seem) self-evident that Data must exist, and that Logic must exist, no matter what else might ultimately be the case? It rather does, actually. So it would seem that on grounds of self-evidence, God is more dubious than DataLogic, because it seems plausible that the world might exist as a consequence of simple necessity rather than a conscious deliberative process resulting in a selection among possibilities for actualization. In terms of simplicity, there is no question at all that DataLogic is superior, not only because it has less assumptions by one, but also because its assumptions seem significantly simpler - assuming, for example, that consciousness is at the foundation of everything is rather grand, don't you think? Consciousness after all is a very complex phenomenon, not exactly the sort of thing one can imagine 'simply being the case', in lieu of some kind of hardware platform.

Of course, this will not be even slightly convincing to an idealist, or someone who imagines that there really is no such thing as hardware; that all concepts of external objects, in fact, are ultimately objects of consciousness - typically some grand universal consciousness which is identified with the mind of God. Yet I would counter that appealing to the fundamentality of one of the most complicated phenomena we know of is not a very good way to explain the world, as it does not exactly remove the mystery; on the contrary, it seems then that what was intended to simplify the world has actually made it vastly more complicated, and this complication is simply being swept under the rug. For what after all justifies the claim that the transcendental ground is creative or conscious?

Some people appeal to the intuition that it simplifies the universe, but if so this is a very queer sort of simplicity. It might make the attempt to subordinate all of reality to one schema and one alone, however if the schema itself is not simple, and furthermore if it relies on asserting the fundamentality of a certain fact which is far from clear, it would seem that whatever simplification it allows is thoroughly undercut by the complexity it subtly adds. Another common reason cited to justify the notion that the ground is conscious is a certain kind of awe at how ordered the universe is, and the scale of it, the complexity and beauty and magnificence, and the fragility. There is a kind of intuitive incredulity, a sense of "how can this all be just a matter of chance?", and this can be very compelling.

Of course, a sense of awe and wonder at the complexity and organization of the universe is hardly conclusive evidence one way or another, though it is the kind of experience which certainly leaves a deep impression on the individual. Another kind of experience which leaves a mark and that some take to be evidence of these axioms are personal religious/mystical experiences that result in a strong sense of existential guidance which sometimes culminates in arcane insights into the nature of reality. This kind of experience can be littered with synchronicity or it can simply be a personal journey which the individual explores through religious language, however either way this kind of anecdotal evidence can only buttress a personal conviction, and has no place in the context of a public discussion. Though your story might be sufficient to satisfy you, if the same tale were told to you by another you would no doubt be skeptical, and for good reason - human beings after all have a stubborn tendency to anthropomorphize the world and their experiences of it, regardless of whether it is actually appropriate.

When comparing the two theories along the lines of the criteria outlined at the beginning of this section, what we find is that the two theories - of DataLogic and God - are similar in explanatory scope and plausibility, and the question of which fits the evidence better is to some degree ambiguous. Fortunately, as to the final two criteria - simplicity and derivability - DataLogic has a significant advantage, and consequently should be preferred to a theory which is based upon much more complex axioms, i.e. God. This much, at least, seems plain as day.

If you are a believer who finds these arguments compelling, do not despair, because you need not abandon your faith just yet. Perhaps there is room within your understanding of God for movement, a refinement and a distillation of the insights which are foundational to your religious commitments that nonetheless adapts itself to what has been lain bare before your mind today. This is what we will examine in the next section - a concept of god which is not tied up in this restrictive notion of a conscious creative agent responsible for all of existence.

The proper place for conscious creativity

According to the view which has been advanced in this paper, neither existence in general or this particular world stand in need of creation, which naturally renders the concept of a conscious creator God unnecessary. It would seem that there is simply no gap left for God to fill at the ground of Reality, and a continuation of the concept of God will require an innovation with respect to the ideas with which He is identified. The place of consciousness, it seems, is not as a foundation or origin of all that which Is, but as a wonderfully curious consequence of complexity itself. This of course agrees most readily with our empirical theories about the development of consciousness as we know it, however it may seem to many believers that such a theorem makes God impotent, stripping him of his dignity and his duty. To them I ask: what is the proper seat for your God - heavenly throne, or dirty floor. In other words, does God seem to them to be the lowest thing in existence, or the highest manifestation, the peak of Being?

Deists would perhaps have the most favourable impression of the argument I am outlining here, but it should have widespread appeal for all variety of theists as well, because it does not befit a higher power of any variety to impose where He is not needed simply so that he might maintain his authority. I am not strictly atheistic, and I amtherefore open to the possibility that there are higher levels of consciousness than our own manifest within the sphere of Existence. Regardless however of how high the levels of consciousness go, it seems clear to me that consciousness itself is the pinnacle of existence, the consequence of manifold complexity, not its origin or basis. As a result, if there is indeed a universal or cosmic consciousness, some higher power which warrants identification with the notion of God, it seems to me that we will have to find him by looking up and forward, not down and back.

This is not a knell ringing to signal that God is dead, but rather it is an alarm bell, alerting us to the fact that God has gone missing. It is up to us to find him again, but perhaps he is not where we left him. Must we continue to insist upon confining God to the foundation of Existence, when his proper place might be at the cutting edge of possibility itself? For far too long we have imagined him to be grounded, stuck at the foundation, bound up in his duties of creating and sustaining, and a change in the spiritual wind filling humanity's sails is now long overdue. It is up to us to find God again, and I suggest we might start on the mountaintop and seek the transcendental peak.

On that sacred mountaintop, we will worship both the mystery and the sun which allows us the insight to see into it, and hence we will resume our long forgotten search for God. Which of us thinks we will find our God by heading back down the mountain, and resuming our everyday lives, and which of us believes that up here, in the refined air, we will be able to feel the subtle winds that God sends our way to give us clues as to how we too can continually ascend in spiritual maturity and refinement until, one day, we too might stand atop the Mountain high.

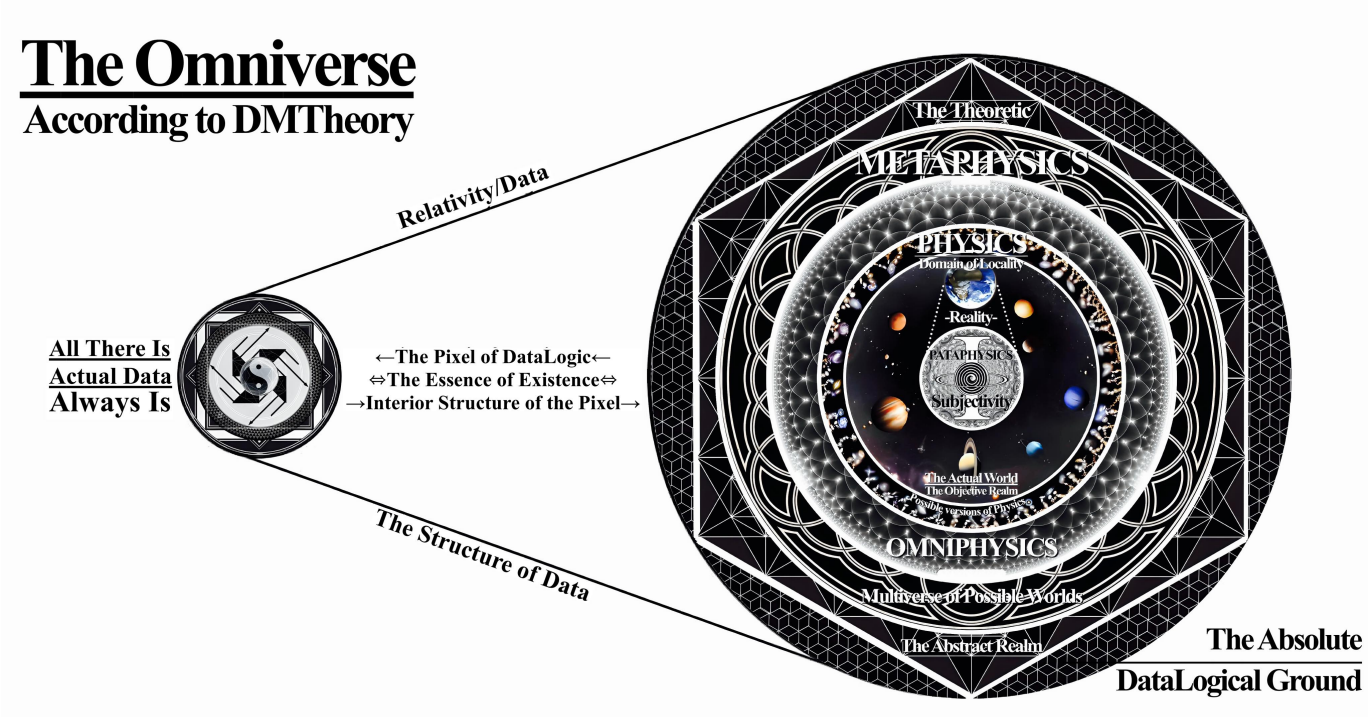
Existence is a sphere - the question of finitude

"Existence is a sphere whose centre is everywhere and whose boundary is nowhere", and the strange thing is, we see the same fact duplicated on the stage of physics. Yet what is meant ontologically is more profound than this; the only kind of boundary that could ever manifest in relation to Existence would constitute non-existence, and since Nothingness has been shown to be impossible, there is no such boundary. Naturally, existence is still constrained by the Logical relationships which make up its fundamental structure, but within certain dimensions it is endless, just as we observe physical spacetime to be. In fact, the exact quote with which I opened this paragraph was articulated by a geometer of old, citing the same essential insight. It is described as a sphere because spheres have stood since time immemorial as the symbol of completion, perfection and unity.

So, is Existence finite or infinite? It seems, as is the answer to most of the deepest questions which trouble our species, that the answer is actually both, each in different ways. This perhaps demands a digression into the problem of infinity, the nature of which is confusing even to those who work with it every day. This confusion springs in part from the fact that the term has been used to designate mathematical objects constituted by certain sets which do not have a finite cardinality, though I believe these are better referred to as endless sets. The reason for this distinction in terminology is simply that infinity means "unbounded or unlimited", and in order to be studied by mathematics we must delimit the objects which are under discussion in one way or another. Both mathematical and spatial 'infinities', for example, must inevitably be bounded by the logical constraints which give them an identity; the set of natural numbers, also known as N, is not just any set, but a specific and definite one.

In so being, it is inevitably limited by the logical laws which are tied up with the nature of identity itself, yet within these constraints, much is possible. In this way, Existence is and always must be finite, and yet there are degrees of infinity within it with which we attempt to grapple as we struggle to understand our world. Existence is indeed a sphere, but like the infamous Tardis - it's bigger on the inside. Thus within the constraints of objectivity, there exists a profound dimensional depth that may even approach true infinity, but which is ever approaching and never quite reaching, like an asymptotic curve. Like a fractal, it is as if the further you look, the more there is, except in this case it only goes inwards, and there is a definite boundary condition when it comes to the outside. That boundary condition, however, is such that it includes everything and excludes nothing, but forever reflects itself within itself, endlessly descending in an intricate matrix of light. In this way, it's rather like an infinity mirror.

The notion of Existence as a sphere is occasioned not just by esoteric concerns about the symbolism of circles, but also by practical considerations regarding the kind of shape which is expressive of something which has no corners or edges, but instead presses out uniformly in every direction, 360 degrees of 360 degrees. Since there is no boundary to existence, as non-existence is impossible and therefore cannot manifest, there can be no one centre, and this is why it is described as a sphere whose centre is everywhere. DataLogic is thus *the* fractal gemstone.



The Nature of Possibility: actual Potential

The usual conception of modality is that actuality is a subset of possibility, where actuality is what we observe to occur in our local environment, and possibility is everything else which is not logically ruled out, but which is not observed to occur. According to this view, this particular world is special in that it uniquely (actually) exists, while all other possibilities are 'mere possibility', and have no genuine manifestation. In the theory which has been advanced within this paper however, this relationship has been turned on its head such that actuality is the basis for possibility, and is a label which is only nominally assigned to local manifestations because they are the most concrete things with which we are familiar. In this schema, Actuality > potentiality > actuality, and consequently Actuality as such is identified with necessity, while nominal actuality - the indexical sort - is what is typically understood as contingency, being identified with locality within the scope of this theory, an instance of potential.

Therefore a contingency is an example of an instance within the possibility space constituted by the theoretic, also known as the multiverse, and it is contingent upon that multiverse in order to exist. It is called a contingency precisely because it could logically be otherwise, which is just what it means to be a locally manifest possible world. Hence according to DMTheory the 'actual' world as we typically understand it is instead just the local example of stuff; it is constituted by a specific logical possibility which is manifest within the broader sphere of metaphysical possibility that is identified as the multiverse. This realm of metaphysical possibility is of course grounded by Logical necessity, which implies that which is not absolutely necessary, yet is logically possible, i.e. the theoretic (metaphysical Possibility), and this entails specific nomological possibilities such as our own physical world. Logical Necessity -> metaphysical Possibility -> physical possibility. This local possibility is typically thought to be actual.

Given that this is so dramatic a divergence from the typical picture, it seems pertinent to ask ourselves what is meant by the term 'logically possible world', since it seems plausible that the contexts of use vary considerably. One of the main ways in which this notion is used is in the context of counterfactual reasoning, to imagine ways this world could seemingly have been, such as "the world where hitler got into art school". The purpose of a hypothetical scenario such as this is to explore the projected consequences of a model of the world given some seemingly logically possible permutation such as this. Yet we might ask - is it really possible to change this fact alone? That is, we might wonder how wide that one change's web of influence spreads or how far back one has to go to effect a change like that. It might even be questionable as to whether such a change is possible at all.

If it were possible, it could end up requiring some changes in the underlying variables of physics themselves, and it is hard to see how this could end up manifesting so specific a result as to change only the course of one man's life. Maybe to do this it changes the entire course of history. Yet, it's plain that this is not what we are imagining when we engage in these thought experiments, not by a long shot. Rather, what we imagine is just what was mentioned initially - that virtually everything except the single fact we specify is left untouched by our alteration. It seems then that what we must be doing is simply picturing a small corner of reality, and tweaking the variables of that corner with no regard whatsoever for what the implications of that would be on the total system, butterfly-effect style. And in fact this is an eminently reasonable thing for us to do since we need not care if it is a holistically possible scenario when we are simply trying to evaluate what might have happened had things gone differently.

In this digression however we have stumbled across a rather curious fact: it is possible for a human to imagine something as being possible when in fact it may not be. Another way of saying this is that logical possibility is more narrowly constrained than imaginative possibility, because imagination does not and cannot countenance all the consequences of a counterfactual situation. Yet logical possibility is the broadest type of possibility that exists, and what is necessary logically is necessary at every derivative level of analysis. This is why pataphysics is such a curious field of study, being defined as 'the science of imaginary solutions', because it is somehow more expansive than Existence itself. It seems fanciful, yet it is undeniably a dimension of Reality insofar as we are vessels of it.

One might wonder: how would we know if we really did lead potential lives in a possible world, rather than a uniquely manifest one, and would it even make a difference if we did? Would there be anything decidedly unreal about existing as a possible person within a possible world, or would it be qualitatively identical to the experience we have now? Realizing possibility sounds a lot like my life, however we mustn't be too hasty with conclusions like that given how little we understand about the nature of consciousness. Regardless however of whether there might be higher planes of existence possible for conscious creatures such as we, this is still our corner of reality and it is no more or less real than any other. Yet it is not Actuality itself, and it pays to know the difference.

If you had the perspective of a possible being in a possible world, you would probably experience pretty much exactly what you do now, since it is difficult to fathom a dimension or degree in which it would differ. It seems that it would make not one iota of practical difference to your day-to-day life if you found out that your world was not uniquely actualized, but rather was just one of an endless multiverse of possible worlds. You would continue to live your life exactly the same way as before, and knowing this fact would not devalue any of your experiences because there is nothing 'more real', no way to unplug, no master reality. In fact, it might even be possible for such a recognition to become fuel in your spiritual journey of understanding your place within the grand cosmic scheme.

Bumble B-theory of time

A direct implication of the preceding section is that, although from within our local universe time appears linear and despite the fact that we do ride the vehicle of the present moment through time as the universe gradually unfolds its intricate designs, on a more objective level of analysis that change which we observe can be seen as a surface-level manifestation of an underlying order, a static code which defines the ephemeral developments. This means that time as we perceive it might be illusory, a lower-dimensional perspective on a higher dimensional object. But what is this 'B-theory' of time about? It all comes down to the question of the nature of the present moment.

The A theory of time could perhaps be thought of as the commonsense and intuitive one, as it is the one which agrees most readily with our everyday perceptions of reality. The A theory states that the past is fixed and gone and the future is fluid and unrealized, while the present alone is real. In other words, the A theory of time postulates that the present moment is the cutting edge of reality, and constitutes the line that transforms potential into history. The B theory, on the other hand, proposes that the present is not in any sense 'special', but rather that all moments of time exist at once, the present simply being the moment we 'currently' have access to. The present would just become another kind of indexical term, referencing the locality in a decidedly strange, but nonetheless logically consistent way. On this view, the entire timeline exists, not just the present moment in time.

The fact that the A theory resonates with the intuitive appearance of phenomenological experience serves as a compelling reason to take it seriously, yet superficial consistency with lived experience can sometimes be a misleading basis for the formulation of theoretical principles. Where principles which are derived in this way come into conflict with inferences from more reliable scientific models, we typically disregard our prior perception regardless of how counterintuitive the prevailing explanation may initially seem. In this case, not only is there nothing within our scientific understanding of spacetime which would mark out the present moment as special in some way, but there are certain theoretical considerations that would seem to motivate a view endorsing the B theory of time. As an extension of the prior analysis about the nature of potential, consider the following:

Imagine a movie stored on the hard drive of a computer; an observer can play the video file, and once playing the image on the screen begins to change, and the story progresses in a linear fashion. If you were a character within the story, the playing of the video would result in your living out your role within the story, and to you, things would appear to change. Yet, from the perspective of the person who is able to perceive the video file itself, the change is ultimately a superficial phenomenon manifested by code which does not change at all throughout the movie. Now imagine that instead of a movie, we have a simulation of this universe, beginning to end, saved as a timeline file upon the hard drive of the cosmic computer. From Big Bang all the way to heat death, this file maps the various transformations which matter and energy go through according to the constraints of physics. To any potential individuals, those whose existences are contained within the simulation, the world would appear to be constantly changing. Yet to one who is able to perceive the timeline itself, the theoretical object which contains the underlying code of the natural simulation which is our universe, it is clear that the nomological laws do not shift.

This is why, when the video is played back, the same sequence of events transpires, in the same order every time. The image on the screen morphs, but it only shifts within certain dimensions, and these parameters themselves exhibit no change. Thus the change is ultimately reducible to that which is unchanging, i.e. the variables which make up the fundamental forces of physics. But one might wonder why the analogy of the video file upon a computer is appropriate? - Due to the fact that the entire potentiality (along with every other logical possibility) is contained within the metaphysical multiverse, it would seem that time as experienced by linear progression from past to future via the vehicle of the present moment is an experiential fact which is the consequence of scope, rather than a genuine property of the world. Consequently, the present moment cannot be privileged in the way that the A theory requires, because there is nothing metaphysically special about subjectivity - the nature of the objective world always and ultimately trumps the perspectives of subjective life forms. Thus, eternity reigns.

Yet it cannot be denied that the A theory seems to make more sense to us, and part of the reason for this is that we have very limited access to either the past or the future, whereas we have constant access to the present moment. Plus, there is a kind of undeniable intuitive appeal to the proposition that the present moment is the cutting edge of reality, and in phenomenal terms the present moment is all we ever really have to work with. Given the fact that this theory rhymes with lived experience, a contrary position will be very challenging to countenance. How can we be expected to believe that the past and the future exist just as much as the present, when the present is all we ever see? In response to this I wish to identify two aspects which demonstrate our ongoing commitment to the reality of past and future respectively, namely that of history and prediction.

There is naturally a problem of access when it comes to how we can know about something like the past or the future, because it is not something we ever have direct experience of - these concepts are rather abstracted from certain recurring themes within our experience. However we can see by examining our intellectual practices that there is much which hints towards a commitment to these things, not least of which is our tendency to remember the past and tell ourselves stories about what happened. Usually, the motive mentioned for this is to learn from the past, so we don't repeat our mistakes in the future. Let us however disregard the verbal self-report for now, and simply analyze what is implicit in the telling of such stories. Surely the only value in these stories is that they help us to understand how we got into the situation in which we find ourselves currently, which is already an idea that the past is somehow still existent, in that it culminated in what is presently occurring, and is still doing so.

We seem quite concretely committed to the proposition that the events recorded within the history books 'really happened', and what is the difference between its having happened then and happening now, back there? What even is now, anyway, except a freshly minted 'then' to the you of tomorrow? What proof is there of the future, apart from vague prophecy? Precise prediction of course! What other than predicting exactly what will happen in the future (which supposedly doesn't exist yet) could show more strikingly that, in a way, the future already does exist, because the seed of it is already here, in the present. And again, who's to say that the future doesn't already exist somewhere up ahead - we might be moving towards it, like a tourist on a rollercoaster, and by observing the scenery around us we are able to guess what is coming up. How would we know the difference?

Such considerations may not necessarily move us to believe that the past and the future are actually somehow 'there', but merely that they are indeed tangible in certain ways; they are not completely ephemeral, but rather they are simply relatively inaccessible to creatures such as we, limited as we are by the scope of our existence. However the difficulty in accessing them doesn't give us evidence against them, although it does mean that we only have limited evidence in favour of their actual existence. Yet limited though it may be, I think it nonetheless stands to reason that we have a certain commitment to the legitimacy of these concepts, as we employ them regularly both within our scientific practice and outside of it. Even simple notions like remembering and planning presuppose past and future respectively, and assume that they really exist. Do we dare doubt what we can't see?

Perhaps one way to think about this section is as extending the insight about our world not being special or metaphysically privileged; neither is the time in which we exist. Rather, all of the moments in the timeline exist eternally, and it is only to one who exists within the timeline itself that things seem to come and go, from nothing into nothing. However, there is still an aura of mystery surrounding the question of the present moment, and it may well be that there is yet some further integration to go. Let's see whether a final look at Logic settles things.

In Defence of The Theoretic - The Reality of Logic

In defence of the more abstruse of my speculative conclusions, the reader will have to allow that the entire discussion stands or falls with the third step in the theory. This is the step which establishes the necessary entailment of logically possible data, otherwise known as the realm of the theoretic. If it is logical that in principle something could exist, then it will exist in fact, because the nature of the universe is such that possibilities which are logically coherent all exist in principle within the realm of the theoretic. This is the explanation which suggests itself to account for the existence of specificity vis-à-vis this particular world, but it serves us equally well in establishing the existence of the reflections with which true propositions correspond. If everything which is logically possible exists in principle, so do logically possible propositions, because they are part of the MetaData which is entailed by and attendant upon any logically possible world which is manifest by the DataLogical Ground.

This is par for the course given the central commitments of the theory; if the reader balks at this suggestion, she can hardly have taken seriously the identification of the ground as Data and Logic, and therefore we ought not even to be discussing this third step, for if she has not yet taken the second step, it is a waste of time to try to convince her to take the third. That the theoretic should exist is on the one hand undeniable given that this world is clearly a logical possibility, and must therefore be manifest within a logical framework, while on the other hand it is quite dubious because, given that this world is the only one with which we have any experience, the notion of other possible worlds 'actually existing' in just the same way as this one does strikes the average reader as quite inconceivable. Yet, this intuition might just be turned on its head if one were to consider that actually existing, as far as we are concerned, is just 'being here for us' - and this too a possible world would do for possible beings.

That there should be a some multiverse containing all logically possible worlds is not only an eminently plausible hypothesis which is in no way ruled out by any of the evidence (not that it ever could be), but it is a view with much going for it in terms of its capacity to resolve ontological and metaphysical questions which have plagued humanity since the beginning of time. Whether or not you accept DataLogic as the essential nature of existence, surely the posit of a multiverse is no less plausible than that of a conscious creator deity? And if not one of these two options, then what? How else are we to resolve such puzzles as the fine-tuning problem, for example? And even if we are not concerned with such puzzles, it will still be incumbent upon us to explain just what is wrong with the suggestion being made, apart from the vague appeal to incredulity that appears to be operating in the background of the typical refrain in response to the suggestion that this world is also just *merely* possible. What is often ignored in this connection is that, on the view proposed here, the notion of mere possibility becomes vacuous.

No doubt I have scarcely begun to shine the lights on the potential implications of the view of which I have given the briefest of expositions. There are, I am sure, many implications hiding in wait which I have utterly failed to draw out, and in this I can only hope to pass the torch along to others who will be capable of forging the path rather further than I might have done. In the same vein, I cannot but think that the similarities between various strains of the music of mine own thought and those of others have gone unnoticed by my mind, where they might profitably be brought forth and offered as comparative material through which to understand the implications of this curious idea about DataLogic. In this respect too I am indebted to those future thinkers who might spend their time extending DMTheory and exploring the fruits of the various suggestive aspects of the thesis advanced here.

For myself, it is important that my reader understands that DMTheory is a presentation of only the most basic aspect of my philosophical understanding, sophisticated though it is, and although it informs my understanding of every other subject, it would be remiss of me to rest easy with such a theory. Existence calls us ever onward, and I must of course comply. What I love most about DMTheory is not the sense it makes, although I love that well, but rather the openness it permits with respect to the various other conundrums which confound the human mind. It serves as a groundwork for a deeper understanding of existence, but it does not supplant the need to understand the material world, the here-and-now. Instead, it reinforces and celebrates the continual striving for a better grasp of the way in which every single thing in Existence 'hangs together' so sublimely that silence alone serves.

Intellect and Entelechy: The Meaning of Life

Here is where the theory gracefully dovetails into an apotheosis of existential perfection, if I do say so myself. Finally, we have arrived at perhaps the most important of the implications, and definitely the one I have been most excited to discuss with you. The strange thing about the theory outlined within this paper is that it harmonizes and resonates almost of its own accord with certain notions of meaning that facilitate the well-lived life - so well in fact that it almost seems as if these notions provide additional testimony in favour of the model, buttressing the more general ontological and metaphysical insights by showing how they can be embodied in more human terms.

Despite the overarching staticity of Reality - or perhaps in some queer way because of it - there manifests a curious type of movement, an impetus towards the realization of potential. This is what is designated by the term Entelechy, and it is this impulse towards realization that we are acting out as individual life forms, each of us a subjective organism striving towards transcendental ideals within an objective world. For me, entelechy has two dimensions, twin aspects of meaning which contrast and complement one another. The second aspect is the one which is most clearly identified with the context in which I have introduced the term, but for creatures such as we it cannot even manifest itself unless it is preceded by the first sense. The second sense, of course, is that of the actualization of that which is only possible, and it refers to those aspects of reality which require our collaboration in order to bring them into being. Our collaboration, of course, will consist in our taking actions which align with and thus embody our understanding. Yet in order to actualize an idea, one must first perceive and conceptualize it.

This is where the first sense of entelechy comes in, that of realization in the sense of revelation or inspiration. Prior to any attempt to actualize a new pattern of being, one first must experience a realization about what shifts will be required during the transformation which is to come. Thus, this pattern which we subjects inhabit mimics the very heartbeat of the universe, as it is itself a self-realizing potentiality, a maze-like matrix of light in which we are each microscopic mirrors. The solution is simple: the world, without subjectivity, is merely possible, and we are the pulse which brings Existence to life, recursively realizing our potentialities within a self-same universe.

This is why, as beings who are always seeking to penetrate the depths of the mystery, as constantly curious creatures, the pre-eminent question is "What is the question", as in, what puzzle am I going to try to solve next?

This question is of course recursive, and, as self-aware instances of consciousness who are constantly self-referencing, we are magnetically drawn to aspects of nature that echo the fractal infinity of which we are but instances. So it is that we are drawn to the meaning of life, and in the same way as many people say the meaning of life is simply to live, the answer to the question of what is the question is exactly that: what is the question. That is, to what problem or puzzle should I devote the energies of which my life consists? This is the kind of question which can be asked ad infinitum - to infinity, and beyond. Thus, this really is *the* question, because it is the question which continually recurs and which can never be fully resolved. After a certain amount of time however, this sort of inquiry is bound to turn inwards, and before you know it you are wondering, rather than what the question is, who it is that is doing the wondering? It is in service of the effort to answer such questions that DataLogic and the corresponding conception of the meaning of life can really start to do some heavy lifting for us, because in order to ascertain the true nature of the one who wonders at such questions, what is imperative is first and foremost that one has a firm grasp on just what it is that Existence itself consists in.

If, as has been postulated here, the meaning of life is entelechy, then it is our moral duty as individuals to do our best not only to realize our own potentials as people, but to help those around us to do the same. It is no coincidence in my eyes that this straightforward extension of the DMTheorem leads to a favourable moral outlook. It is evidence, of a kind - to those who have eyes to see, anyway. For those who do not - who knows what would count as evidence. Regardless of agreement, I encourage them to follow their path and realize their own potential.

Final thoughts

Categorizing DMTheory

Trying to put a theory like this into a preconceived category is like trying to box up life itself with our many concepts and words; ultimately, life goes on - outside the box. What we manage to capture is a dim simulacra of the real thing, a kind of neutered automaton which is always a poor replica of the original living breathing thing. This difficulty is especially pronounced when we are dealing with theories that blur the lines between our previous schools of thought, integrating and combining certain aspects of each and thereby transcending the traditional dichotomies which characterized the domain for all previous thinkers. However, I will make an attempt to give a general indication of the affinities this metaphysical model has with certain other already-established philosophical schools of thought, in order to give my reader a basic reference-list in relation to the theory's commitments.

DMTheory is a theory which inclines towards determinism, and it has even been compared to necessitarianism at times, because the implication of DMTheory is that there is exactly one way everything could be, and it is that way - it's just that, on DMTheory, it is also every other way as well. But because it is every way things could be, this is also therefore the only way things could be, because there are no other alternatives which are not included in the object. Thus the comparison with necessitarianism and also with modal realism is quite apt. Another notion which bears a striking resemblance to DataLogical Metaphysics is that of emanationism, because of the way the Absolute is abstracted into potentiality and locality, only to be further abstracted into consciousness and self-consciousness. This are some similarities here, just as with necessitarianism, but in both cases there are certain peculiarities which motivate the inclusion of nuance that transcends the limitations of the category. With emanationism, the difference is that there is no degradation of perfection, but a more logical operation instead.

Another comparison which has seemed apt to certain others is that of platonism, or platonic realism, and again I can see the similarity which occasions the connection, however in this case I think there are more divergences than similarities. First of all, I am uncomfortable with the historical context of the term platonism and therefore the ambiguity associated with using it as a descriptive label - an apt question to ask would be, 'what kind of platonism?', as there are many different varieties. More importantly, however, I typically understand platonism as a commitment to the actual existence of universals within the abstract plane, of which our plane is a mere reflection and imitation. The world of appearances derives, in most platonic worldviews, from some superordinate realm of reason which is the ground of all regularities which we observe. Here, I really cannot agree at all.

What is being proposed in DMTheory is certainly a kind of logical realism, and some might consider it a form of logical atomism as well, and indeed many people might call it a kind of platonism to boot. It has likewise been called by some an information theory of reality, although personally I somewhat conflicted about this description. It is certainly a masculine metaphysic, and it is questionable as to whether one would classify it primarily as a monism or a dualism. Perhaps it is better thought of as both, like the yin-yang - two complementary aspects, neither of which could fail to exist, forming a cohesive and ultimately harmonious whole. Does that make sense? You tell me.

On the implications for true-believers

If you are currently warring within yourself, put that conflict to bed, and listen closely. This is a baseline, not a conclusion, not the end of the line, and never the final solution. Do not let this truth, if it be that, dishearten you or weaken your faith. Rather, use it as an occasion to search your soul for what grounds your convictions in a certain image of God, and whether perhaps the God that you believe in might not be found where you have always thought to look. Perhaps it is the case that God is simply greater than you could ever have imagined, and has no need for such a crude thing as creation, because his job is higher and more noble than to sustain Being. I am not trying to tell you what to believe, but I am trying to make sure that you understand that this only defeats a dogmatic faith which is rigidly attached to a certain canonical picture of god, an image which was ultimately devised by the mind of some other man, long ago. If you can roll with the punches and go with the flow, this need not trouble you overly much. In fact, some of the most devout among us might treat this as an opportunity to renew their faith, to revel in the revelation of Truth. Others, however, might call such a suggestion a heresy. Your call.

Common Ground

We might finally have found the foundation-stone for a modern renaissance, a new reconstruction of the life supporting philosophies of old so that they can finally be interwoven to produce a harmonious whole rather than clashing to create a dissonant din. Instead, that is, of being mutually exclusive alternative perspectives on life and the world at large, perhaps it might be possible to derive a new vision of existence and man's part in the whole play of reality, and thereby to synthesize solutions to a host of age-old debates and long forgotten puzzles. A model like this has the potential to be the crown-jewel in man's understanding of the world, and could unlock a whole host of powers hitherto unknown to him. It seems inevitable that windows for resonance will now open up.

If true, this theory represents an opportunity to establish common ground between factions of every different kind who suffer a perpetual polarization around contentious social, moral and spiritual issues. If a common foundation were made salient for the whole species, it would catalyze a convergence towards an inter-subjective consensus on issues which previously have produced only discord and irreconcilable differences in perspective. In other words, this could be a chance at an intellectual and spiritual reconciliation the likes of which has never been possible in the history of the world, and if there is the slightest possibility of such a state of affairs coming to bloom, then I think it deserves all the love and attention we can muster. Specifically, if you think that this paper outlines something which is really quite compelling, then it is worth sharing with others who might think so too.

Extensions of DMTheory

This paper is part of a trio which will be published together, the other two being DMTheory: Distilled and the DMTheoretic Droplet. These are, respectively, a short and a tiny version of the ideas contained within this paper, intended to summarize as far as possible the details of the thesis so as to make it more digestible to a modern audience. There will, in the future, be an elaboration of this paper into a book length work which will treat of the issues in a more organized and comprehensive fashion - if the reader can suffer that, that is! That book will be called either DMTheory: Explored or DMTheory: Unlocked, and it will be released within a couple of years of this paper. It will contain a full account of the development of the theory, including the history and method utilized.

Critique and Peer-Review

One of my primary motivations for rewriting this work in a more digestible and comprehensible format is so that it can be evaluated by a wider audience, because I am eager to be told what is wrong with it, and why it does not make as much sense as I seem to think it does. Ever since I conceived of this idea, I have enjoyed talking about it with other people because each occasion is an opportunity to learn how this theory is not what it seems, but I have ever been disappointed. My hope is that by publishing DMTheory: Reloaded, I will be able to engage a variety of intelligent minds in the process of critique and peer-review which is necessary in order to put an idea to the test. I am a big fan of the proverbial kicking of the tires to make sure that they are indeed airtight, and like the sword in the stone, I am fascinated to find any man who can cut the gordian knot represented by DMTheory.

If you have thoughts about the ideas presented within this paper and you would be interested in corresponding with me about them, you can contact me by email at 1nsinqchannel@gmail.com or message me on Discord @1nsinq#2345. I have been told that I have a disagreeable manner, but I am intensely interested in the possibility that I am wrong, and I am acutely aware of the audacity entailed by a proposition such as this. Consequently, I am deeply curious about any criticism others have to offer on this matter. Please let me know if you disagree with me.

Alternative Implications

In addition to that which has been explored in this paper, there are likely many other novel implications of the theory outlined as well as many different ways to frame or apply the theory to different fields of study or age-old problems. I welcome those who find other such connections to share them with me on my Discord server where I answer questions and have discussions about this theory of metaphysics. If you are interested in joining and contributing to the discussion, the link is: https://dsc.gg/datalogicaldomain. Alternatively, my contact info is above.

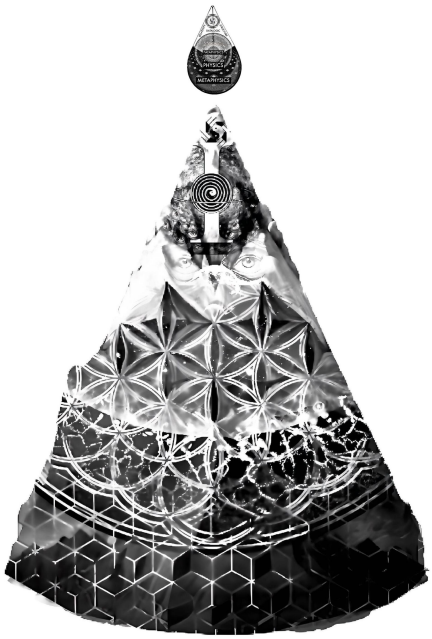
Farewell

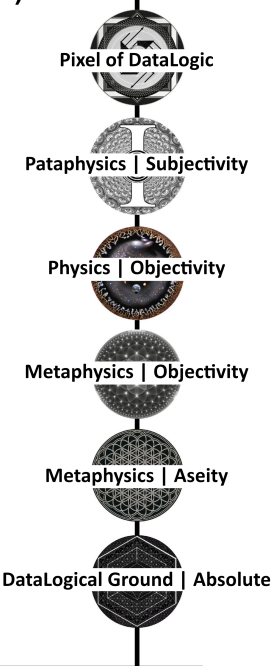
What a journey! Hopefully I didn't bore you too terribly with my grand(iose) ideas about the universe - though if I had, I doubt you'd have made it this far. Thank you for your time in reading this work, with luck you will have learnt something or at least enjoyed some food for thought. There are some diagrams in the appendices, if you're into that sort of thing, and a glossary for the real nerds among us. Finally, I wish to to acknowledge the following people for their contributions towards this project - without them, it likely would not exist. Thanks Christopher Mackinga, Kyle Woodward, Jamie Martin and Edde Theory - each of you helped me develop this idea, in one way or another. Also thanks to my mother, for all her support, to 4n1 (vivi), for his unending assistance with anything diagram related that I needed help with, and finally to Dyhn Matthews, for... for everything. But especially for believing in me, in a way that no-one else has, and at times when no-one else would have. You're the best.

Map of DataLogic (top-down perspective)

Pixel of DataLogic (bottom-up perspective)

Mount DataLogos (front-side view)

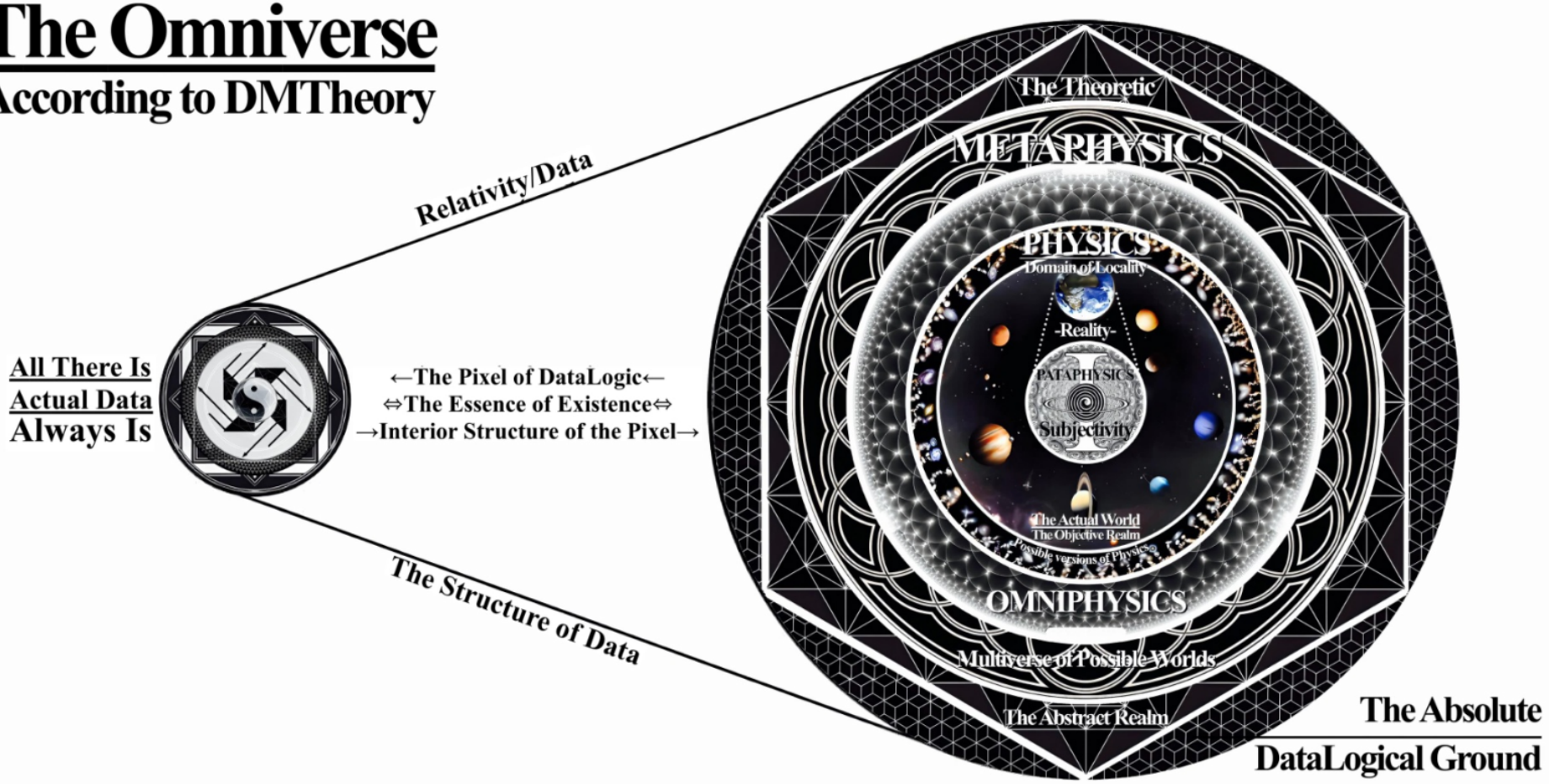


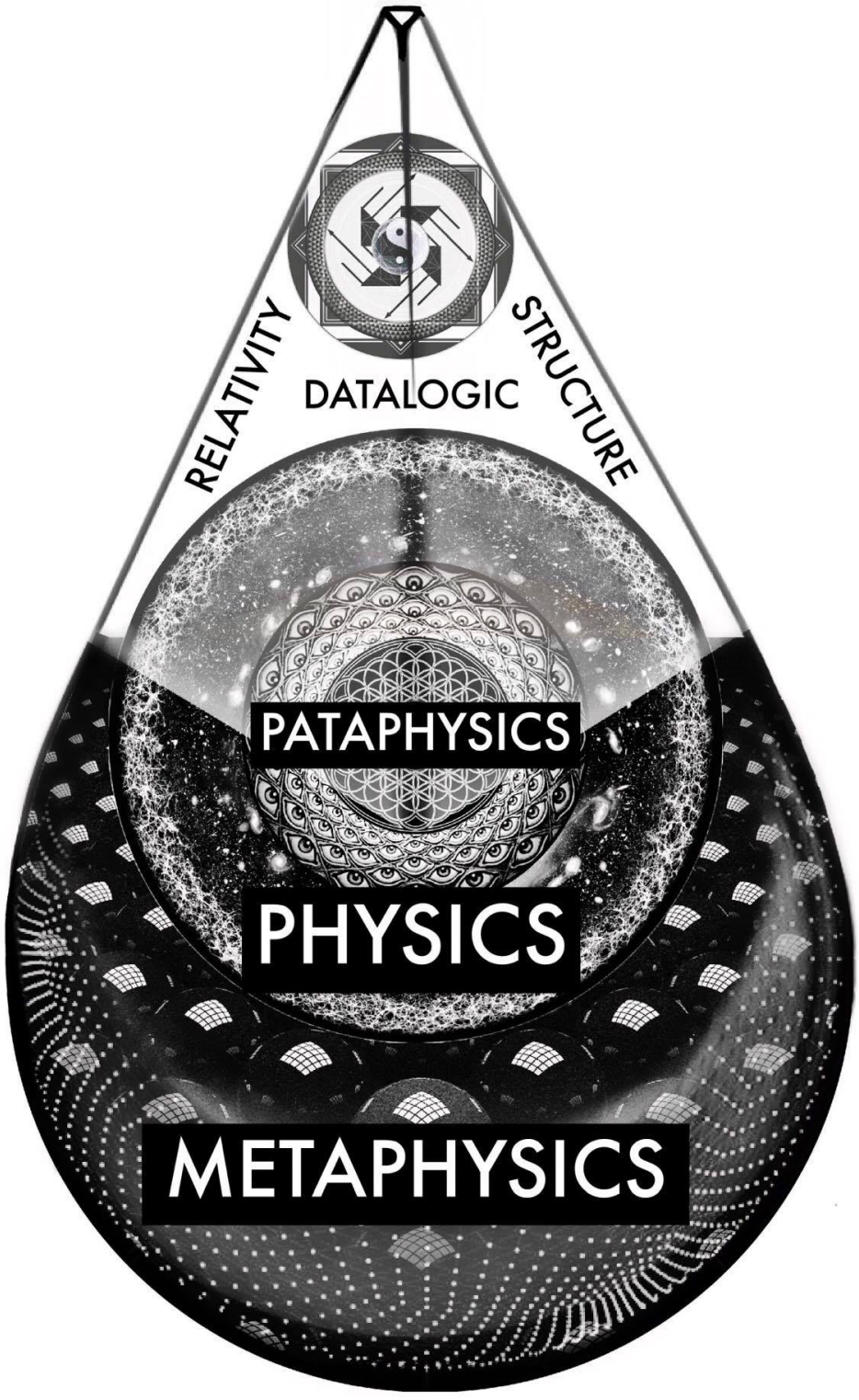


Mountain of Truth (back-side view)

The Omniverse

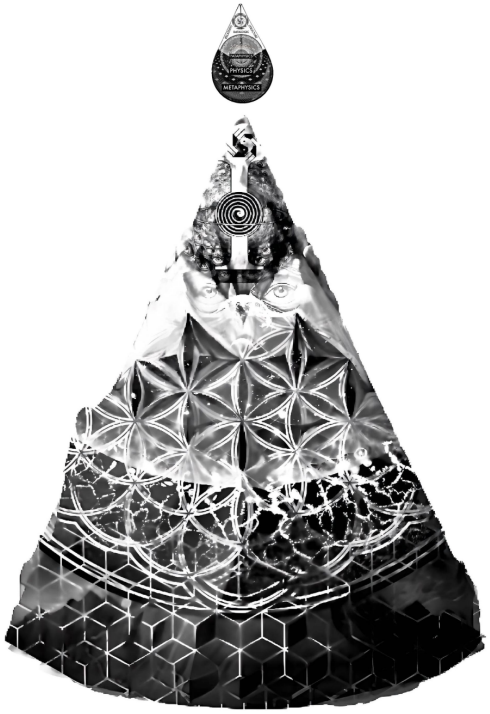
According to DMTheory




RELATIVITY
DATALOGIC
STRUCTURE
PATAPHYSICS
PHYSICS
METAPHYSICS

Map of DataLogic (top-down perspective)	Pixel of DataLogic (bottom-up perspective)
	

Mount DataLogos (front-side view)



Pixel of DataLogic

Pataphysics | Subjectivity

Physics | Objectivity

Metaphysics | Objectivity

Metaphysics | Aseity

DataLogical Ground | Absolute

Mountain of Truth (back-side view)

Glossary

metaphysics - The study of the first principles of things, especially of Existence. This term refers to first principles in general, although it includes various loci of study such as being, knowing, identity, time and space. It can also be invoked in relation to a specific academic subject, as for example in the metaphysics of mathematics.

ontology - The branch of metaphysics which concerns the study of Being specifically, as well as related concepts of becoming and reality. Can also refer to a basic map of the concepts and categories within a subject detailing their properties and the relations that stand between them. An ontology describes essential entities and connections.

property - An attribute or characteristic of an object, especially a supposedly essential or mind-independent one.

quality - An apparent attribute or characteristic, typically manifested phenomenologically (through perception). A property construed through experience.

quantity - An amount or number of something. A property construed through measurement.

Absolute - That which cannot be otherwise, and which cannot be other than it is. Non-contingency, the transcendental ground.

absolute - Something for which there are no exceptions or qualifications. Something which is undiminished.

Actuality/Actually - The Absolute, and all that it entails. What in fact is objectively the case. Existence as such.

actuality/actually - The locally observable environment and manifest objects; all that is locally the case, within this particular universe.

Data - non-contingent uninterpreted information; the fact of Presence

data - a specific collection of locally manifest uninterpreted information

Logic - Consistent relational structure (of Existence as such); the principle of Relativity

logic - A subjective system of reasoning about experience constructed to preserve truth found in premises through reliable inferential patterns in order to derive true conclusions about the world. There are a variety of such systems. This term can also refer to the principles or mechanisms by which something functions.

Truth - That which IS, *as it is*, independently of what we (as subjects) might say, conceive or perceive about it. That is, what we think and say about the world does not change the way things actually are, and our perceptions do not determine the nature of the world. The nature of the world is mind-independent, and it has a certain nature in actuality, no matter what subjectivity has to say about it.

truth - A property which belongs to propositions when they correspond with Truth (the actual nature of the mind-independent world) or are coherent within the relevant context.

Reality - The manifold of manifestations, the multiverse, which includes every possible reality (world).

reality - A local space-time environment, a specific universe within which physical-ish things are manifest. A unique cosmic manifestation; a logically possible world. More specifically, reality refers to the actual physical manifestation itself of the things, and it refers also to the phenomenal experiences associated with those objects.

Existence - The objective world as it is in-and-of-itself, also the thing-in-itself, or the object of existence. Existence designates the totality itself, the sum of all.

existence - This is a local manifestation of a thing, especially subjectivity, but also refers generally to the phenomenon of 'being-here' which is true of all objects within a specific physical reality.

Isness - This is the fact of being indubitably the case, or the absolute nature of Existence. It is the property of being present which is best manifest by non-contingency. It is Being itself,

is/to be - This can either refer to the existence/being-ness of some object or entity, or it can be a means of predicating of some subject (or object) a property.

Being - The phenomenon of Isness which is manifest in Actuality. Being is Existence as such, it is the phenomenon itself of 'thereness' or 'thinghood'.

being - The existence of a particular object, or possibly the manifestation of a subject, as in 'a *human* being'. This is 'being-there' as local manifestation.

Somethingness - This is primal presence, Isness, the absolute nature of Data and the necessity of Existence. This is the object of existence behind the veil of perception.

somethingness - This is the concept of generalized isness, the notion that there must be something which is ultimately, fundamentally and absolutely the case: an origin point.

something - This is particularity and specificity manifest, it is an unspecified extant entity present within a local environment. It is an instance of some class of thing.

Nothingness - This is primal absence, it is the 'actuality' of the concept of nothingness, as if both concept and definition were to flee from it, and it was the case that nothing was the case, without that being logically problematic. This would be the absolute opposite of anything we might experience, an impossibly regressive Reality.

nothingness - This is the concept of generalized absence, the notion that there could be a complete absence of everything which might possibly exist; it is a void, an ultimate emptiness. It involves taking the notion of absence and universalizing it, reifying it such that it becomes THE principle, which implies that nothing would exist at all.

nothing - This refers to the relative absence of some particular object which does exist, but which is not locally present. The manifestation of an instance of nothing is always relative to some specific thing which is absent, that otherwise could have been present, but is not.

DataLogic - That which is jointly designated by Existence, Somethingness, Data, and Truth, and that which entails both the multiverse and every specific universe within, i.e. Reality & its children. DataLogic is the transcendental union of substance and structure, essence and form, and it therefore constitutes the original and eternal state of affairs, of which individual realities are mere emanations, dimensions and degrees of potentiality and abstraction from the absolute which cannot be otherwise. DataLogic refers both to the transcendental ground and the implications, but its primary designation is the foundational formulation of the object of existence - the essential elements thereof, and their inseparable union.

deductive reasoning - This is reasoning which, due to the effective inferential pattern, is capable of preserving truth which is present in the premises into the conclusion; that is, deductive reasoning is capable of telling us a true conclusion providing that the logical form is valid and the premises are actually true. ?Deductive reasoning often uses known general principles and derives a specific true conclusion.

inductive reasoning - This is a form of reasoning which instead works off the basis of specific cases and attempts to generalize them into a rule which characterizes all of the variance fully. The more cases which fall under the rule, and the less which do not, the more support there is for a particular induction. Importantly, inductions never fully warrant their conclusions or implications.

abductive reasoning - This type of reasoning is also called inference to the best explanation. It involves an educated guess of sorts, an imaginative hypothesis which accounts for the observed data gracefully. The idea is that, although there is no clear way to derive the truth of the hypothesis, if true it would tie up the loose ends rather neatly, as it were. Additional criteria could be stipulated to strengthen the argument, such as a requirement as to the capacity for prediction, as well as a broad explanatory scope and insightful implications for other fields. Above all though, a hypothesis of this kind must explain that for which it is adduced simply and/or gracefully.

a priori - That which is known or able to be known prior to knowledge by acquaintance with the empirical world.

a posteriori - That which is known through and because of contact with the empirical world.

analytic - Something which, if true, is true by definition. Therefore, if true, that truth can be deduced entirely from an analysis of the terms involved.

synthetic - A proposition the truth of which depends not only upon the definitions, but also upon the individual's findings as to the actual nature of the empirical world. Can also refer to the outcome of a process by which materials of different natures are mixed together to create something new.

proof by contradiction - A way of demonstrating the truth of a thesis by assuming its opposite and showing that this entails a contradiction, and therefore cannot be true. Similar to a reductio ad absurdum.

principle of parsimony (Occam's Razor) - This is the principle that "all other things being equal, simpler explanations are better than complex ones". In other words, this principle states that the fewer assumptions you have to make for your theory, the better, because more assumptions means more chances to be wrong.

morality - This is the study of what the individual ought and ought not to do; it concerns the study of right and wrong, good and bad, and also questions such as what one ought to value or strive for.

ethics - This is the study of what is the right and wrong way to treat other people, or to interact in group settings. It is morality extended into the domain of social organization, and concerns the standards to which we should hold individuals in their interactions with other human beings.

emanationism - This is the idea that all things are derived from some first principle, and that they 'pour out' of this foundation by steps of abstraction or diminishment of the Absolute.

necessitarianism - This is the view that there is exactly one way the world could be, and it is that way; that the world is the way it is out of simple necessity.

via negativa - The method of coming to believe in and affirm the existence of some entity or phenomenon by way of trying to disprove its existence and being confronted with the unacceptability of that hypothesis. In other words, it is the process of trying to disprove something only to realize that you've accidentally proved that it really does exist. Compare with proof by contradiction; this is the unintentional experiential version of that method of proof.