"There is no economic world."

Graham Joncas

Abstract. This paper presents a unified theory of economics and philosophy. I argue that economics, defined as the science of non-conceptual social relations, is structurally incommensurate with discursive models, and that many of the alleged problems of economics come from trying to translate the former into the latter. These can be avoided only by speaking of economics in a rigorously non-philosophical manner, according to the theses: 1) economics does not refer to a phenomenological 'world', 2) economics is not *a priori*, but a generic *unwriting* (or: writing degree zero); 3) economics is radically non-Bayesian, framing events in their contingency rather than in possibility. These imply that in matters of political economy, language can be used only as in poetry.

Introduction

> *There is no economic world. There is only an abstract economic description. It is wrong to think that the task of economics is to find out how the economy <u>is</u>. Economics concerns what we can <u>say</u> about the economy...*

This thesis (adapted from Niels Bohr, the father of quantum theory[1]) is, to anyone not thoroughly debauched by philosophy, clearly nonsensical—the sort of postmodern tripe that embodies everything wrong with 'theory'. Yet, it is quite the opposite. François Laruelle argues that any notion of 'world'—as *a priori*/mnemotechnic cognitive mapping—is a product of philosophical thinking; in fact, he often uses the words 'philosophy' and 'world' interchangeably. Therefore, if the corpus of economics has a 'world', this implies that any worthwhile statements it makes are translatable into philosophy, which thus becomes privileged as a meta-discourse in relation to the 'regional knowledge' of economics. Such a role has been traditionally claimed by Marxism, as well as obliquely by disciplines such as psychoanalysis, whose proponents believe that they can have knowledge of the economy by imposing their concepts *a priori* upon whatever data is at hand (regardless of whether said theorist knows minutiae such as the difference between stocks and bonds...). To subvert this hierarchy—to argue that economics is properly non-philosophical, thus eliminating all grounds for the use of postmodern tripe—the thesis that 'there is no economic world' becomes essential. This paper presents a unified theory of economics and philosophy, arguing that economics consists of *nonknowledge* rather than knowledge (episteme/technē), that economics operates through *unwriting* or *deconceptualizing* the material of the other social sciences, and that economic models should not be viewed as attempts to *represent* the world, but as a radically non-Bayesian method of framing events in their contingency.

1 World versus 'World'

There is a famous story involving the British analytic philosopher A.J. Ayer and the French continental philosophers Georges Bataille and Georges Ambrosino, in a midnight conversation in January 1951 (Bataille, 2001: 111-3). Ayer introduced the simple proposition that "the sun existed before man," which as a scientific realist he saw no reason to doubt. Ambrosino, a physician steeped in French phenomenology, insisted that "certainly the sun had not existed before the world." Bataille, on the other hand, was agnostic. As he wrote afterwards (ibid., 111):

> This is a proposition that indicates the perfect non-sense that a reasonable proposition can assume. A common meaning must have a meaning within all meaning when one asserts any proposition that in principle implies a subject and an object. In the proposition: there was the sun and there were no humans, there is a subject without an object.

The easy way out of this dilemma (or as Bataille put it, this "abyss between French philosophers and English philosophers") is to say that while Ayer was talking about the sun (as a well-defined scientific object composed of various elements, etc.), Ambrosino and Bataille were talking about 'the sun' (as ideal representation of the Real[2]). While Ambrosino had taken a purely idealist position, Bataille's stance is much more interesting: he had, in fact, hit upon a problem that would later become known as the 'arché-fossil'. This idea would be central to Quentin Meillassoux's attempt to philosophize in a way that avoids what he calls 'correlationism'—that is, the idea that "we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other" (2008: 5), with 'thinking' and 'being' meant in the sense of 'models' and 'objects'. In more visual terms, Meillassoux is searching for a way of doing philosophy that doesn't just involve the imposition of a 'grid' of concepts (or 'syntax') upon the mass of data comprising the world—as has been the norm in philosophy since Kant's *Critique of Pure Reason*.[3] An arché-fossil is any sort of scientific object or datum describing the state of the universe prior to the existence of subjects (e.g. humans) that could experience it—or, recalling the above anecdote: the arché-fossil describes the state of the world prior to 'the world'. After introducing this concept, Meillassoux goes on to outline the 'mechanics' of why this idea is so immediately absurd to philosophers in the phenomenological tradition. The existence of such 'ancestral' data implies (ibid., 15):

- that *being* is not co-extensive with *manifestation*, since events have occurred in the past which were not manifest to anyone;
- that what is preceded *in time* the *manifestation* of what is;
- that manifestation itself emerged in time and space, and that consequently manifestation is not the *givenness of a world*, but rather an intra-worldly occurrence;

– that this event can, moreover, be dated;
– that thought is in a position to *think manifestation's emergence in being*, as well as a being or a time anterior to manifestation;
– that the fossil-matter is the givenness *in the present* of a being that is *anterior to givenness*; that is to say, that an arché-fossil manifests an entity's anteriority vis-à-vis manifestation.

The notion of the arché-fossil underscores the tension between the world and 'the world'. From the perspective of 'the world' there is either 'world' or 'non-world', whose boundary is set by the existence of an experiencing subject. Yet, by carbon-dating a meteorite (for example), it is possible to state that the 'non-world' and the world existed simultaneously (or: co-extensively), and moreover, that the evidence for this is given to us within 'the world'. Philosophically, this is clearly unacceptable. Yet, it may shed some light upon an ancient Daoist *koan*:

> 庄子: "如果把天下就藏在天下，就不会被丢失，这是一般事物的通理"
>
> *"Hide the world in the world and the world will never be lost—this is the eternal truth."* ∼Zhuangzi[4]

Zhuangzi is the same person who, upon waking up from a dream that he was a butterfly, wondered if he was actually a butterfly dreaming that he was a man. The anecdote is no doubt as popular as it is because of its stark opposition of 'world' (dream) and world (reality). A dream, after all, proceeds according to an internal logic where any sort of (arché-)hints that it *is* a dream, e.g. words on a page changing the second time you look at them, somehow don't count. The most absurd events may occur in the most bizarre of settings, but any sense of contingency (the idea that it could be otherwise) is lost. If we take the lack of contingency in dreams as a *principle*, however, the very fact that Zhuangzi *can* ask whether he's a butterfly or a man *proves* he isn't dreaming! Zhuangzi's query creates a partition—with 'dream' and 'non-dream' as the only members of the state space—and is thus self-defeating: nonknowledge is in fact the most useful kind of knowledge he can have. So in order to avoid a performative contradiction, Zhuangzi must accept that the principle can't be psychologically necessary. This gives rise to a *fundamental* contingency, where in order to make a convincing case that he *is* a butterfly, Zhuangzi has to argue that the current rules of psychology (and perhaps even of nature) would have *to be able to be* other than they are—exactly the same position as Meillassoux!

For Meillassoux, this division of world and 'world' *is* the problem, and ought to be gotten rid of; Zhuangzi's stance is similar, though his method eliminates this opposition in an entirely different way—which is the same as that of economics. Anyone accustomed to think in philosophical terms may be inclined, on reading the following sections, to suppose that the argument rests on a tacit assumption of this dyad. If such a supposition is found helpful, there is no harm in the reader's adopting it as a temporary working hypothesis. In fact, however, no such division is made.

2 Econo-fiction

To verify the claim 'oil prices are manipulated by the USA', a researcher could (in theory) physically go to each stage of the oil production/distribution process, from oil wells to spot or futures markets, to various nodes along logistical networks, to gas stations, etc. In the above claim, 'oil price' is well-defined as a variable; moreover, its role as subject of the sentence makes the former claim 'economic' in its genre. (Cf. the *political* statement 'the USA manipulates oil prices', with its focus on agency.) 'USA' is of course vague, but suffices for the problem at hand. The verb 'to manipulate' reifies (in this context), but is in principle observable. Our researcher could measure the 'value added' in each stage as it is expressed in price, then perform an (unavoidably qualitative) analysis of how fluctuations in the magnitude of this value-added (with respect to production costs, etc.) can be causally traced to the USA. In this context, economic methods would not per se be needed, only mercantile arithmetic. Economics is often thought of as simply an armchair version of our poor researcher's task (implying that an ideal model is one that is just as complex as the real world). Yet, in the above statement economics acknowledges not the subject, verb, or object, but the preposition 'by': in a sort of econo-fiction, it shows the numerical properties that make 'manipulation' possible.

Economics can be defined as the science of non-discursive social relations, with a broad definition of 'discourse' such that one could equally say 'non-conceptual'.[5] In fact, economics takes place through a process of *deconceptualizing* the findings of business, finance, and politics. As soon as you think you can understand an economic notion (e.g. an algebraic relation) intuitively and talk about it lucidly, economists develop a way to formalize it (via econometrics and so on) so as to make it entirely untranslatable into normal language. John von Neumann once remarked: "in mathematics you don't understand things. You just get used to them." *This is exactly what Bohr was saying!* By continually deconceptualizing its former results, economics systematically prevents itself from creating a 'world'. As in the famous formulation by Roland Barthes, the task of economics is to *inexpress the expressible*.[6]

Many of the well-known 'problems' of economics arise from trying to think of it conceptually—that is, discursively. The most obvious example is likely the incessant 'critiques' of *homo economicus*, which are only slightly more annoying than 'revelations' on the part of authority figures that it 'never existed' because it ignores social institutions and so on—as if this is news. Even John Stuart Mill, writing in 1844, accepted that it is just a heuristic rule of thumb.[7] A broader and slightly more cogent accusation of the 'bankruptcy' of economics is the claim that you can't talk about economics without talking about politics. This implies a primacy of political economy over economics, as well as ignorance on the part of economists who claim to be 'apolitical'. It would be complacent to contradict this claim; my only addendum is that it *is* possible to *do* economics without reference to politics.

This is because of an interesting property known as *exogeneity*.[8] Consider: in order for an economic model to represent its object with complete accuracy, it would (theoretically) need to contain *all the models of the other sciences*. Put more abstractly: unlike physical models, economic models have to deal with diverse 'causalities', e.g. human agency, 'relations of production', the environment and so on. Economics manages to capture these—even without directly addressing them—by splitting its variables into two types: *endogenous* variables whose values are determined within the model, and *exogenous* variables (or parameters) whose values are determined outside of the model. Exogeneity is interesting precisely because—*in a single number*—it unifies (without being unitary) and commensurates (without commensurability) all of these disparate orders of causality. That is, each dimension of the social sphere operates by entirely different rules, but when an economist statistically calculates (for example) a liquidity premium, all of these spheres indirectly figure into the variable's value (are 'commensurated') without being translated in terms of some totalizing/unitary underlying factor ('without commensurability').

The values of exogenous variables are determined by econometric methods, which are interesting because of their quintessentially non-representational structure: rather than referring to 'objects' proper, statistics proceeds through a pragmatic use of numerical properties such as they may be used to generalize a sample.[9] Because there is no need for representation, economic models avoid any obligation to develop 'sub-models' for all the causalities that go into its variables—the end point of which would, of course, be a 'Theory of Everything'. Philosophy has no equivalent of exogeneity as used in economics, so it has to deal with all of these 'causalities' by an act of synthesis—usually subordinating them all to an overarching theme, or otherwise 'overcoding' them. The incessant demands to incorporate theories of anything one could think of (e.g. identity studies) into economics is a symptom of this constitutive lack on the part of Philosophy. *Economics has to be done in numbers, not words*, or else it would just be more philosophy.

Within Philosophy itself, its only way to deal with exogeneity is through a process known as Philosophical Decision. This is an invariant structure of all philosophies that has been described in intricate technical detail by François Laruelle.[10] For our purposes, the Decisional structure is nicely illustrated through a famous joke by the playwright Molière. In his play *The Imaginary Invalid*, someone asks a pre-Renaissance doctor why a sleeping draught works as it does, and the doctor responds that this is because it possesses a 'dormitive faculty' (*virtus dormitiva*). When asked how he knows this, the doctor responds: "Because it puts people to sleep!" This obviously circular form of argument invents entities that it takes as given, and then proceeds to explain by means of them, in a transcendental begging of the question (i.e. a pre-logical assumption of the point to be proved). Laruelle refers to this *virtus dormitiva* structure as 'autopositional'. As might be imagined, its main function is to reduce complicated issues into cute conceptual sound bites that can then be put into a narrative. What one learns when one studies philosophy in university is (contrary to appearances)

not so much *content* as it is the ability to *write on command*—even with only a superficial knowledge of the topic—which is why the *virtus dormitiva* structure is so crucial in practice.

There are many possible examples. We can tell that a government is legitimate if its people haven't revolted against it, but if you ask a political philosopher *why* there hasn't been a revolution, he will likely say "Because the government has legitimacy!" The same structure applies to a feminist blaming Patriarchy for the fact that women earn less than men. These are empirical questions that philosophy purports to be able to answer by inventing nebulous (pseudo-)concepts. An example more germane to our purposes is how, because the statements of finance (about exotic options and so on) are not translatable into philosophy, philosophers like Jodi Dean treat finance as 'fundamentally unknowable', and proceed to theorize about it using 'black box' metaphors and the like, thus opening the way for silly anti-banker moralizing. In response to such tripe, Friedman (1966: 34) states the following:

> If a class of 'economic phenomena' appears varied and complex, it is, we must suppose, because we have no adequate theory to explain them. Known facts cannot be set on one side, a 'theory' to apply 'closely to reality' on the other. A theory is the way we perceive 'facts', and we cannot perceive 'facts' without a theory. Any assertion that economic phenomena are varied and complex denies the tentative state of knowledge that alone makes scientific activity meaningful...

The answer to every problem is simple, even obvious, once you know the solution. A different way of saying this is: a concept is a model. This implies that the only form of 'concept' in economics is an economic model itself, in its entirety. Most people are surprised to hear that real economists almost never use the concepts of supply and demand, despite their prominence in Economics 101.[11] Instead, an economic model is an elaborate tautology, in the extended Wittgensteinian sense of the term where $p \rightarrow q$ is a tautology, since the concept of p is contained in the concept of q. Economic 'objects' are replaced with exogenous variables or rates of change $\delta x/\delta y$ (read: "derivative of x with respect to y").[12] An economic model and the objects in it thus acquire meaning *holistically*, through their *syzygy* or coalignment. (One could just as well say 'equilibrium', were it not for the absurd belief that this term denotes a *state*.) Ayache (2010: 293-4) summarizes the crucial role of calculus here:[13]

> The differential is such that neither of the two entities (dy, dx) that are seemingly related by the differential are present in the differential. The differential is only the relation, not the actual entities. It is only the *power* of producing, or generating, the co-variation of the two mathematical entities when they come to be actualized. It is a place of repetition and retrieval (extraction) rather than a finished result. It is the place where the function (to be actualized) is determined, that is to say, *differentiated*, the place where it could have been otherwise yet it is faceted and cut to be

> this way, the place where the rift separating the variables and orienting their relative differences (in other words, their future co-variation) is first opened and the function is first shaped.

The marginal method replaces objects by differential operators, and as the model is solved (rendered tautologous) these differences are nullified, as are the objects they're based upon, and nothing remains but the syzygy. Therefore, in economics no distinction is made between a fact and that something is a fact (i.e. *facticity*). Since economic models use numbers rather than concepts, however, it makes more sense to say that economics deals with *facticity-without-fact.*[14] To assert that economic events *are* more complex than theory portrays them is little more than a blithe insistence that concepts are better than math, that facts are better than facticity. It is inane in the same way as complaining about how this year's models of cell phones (or whatever) didn't come out *last* year—if the companies could have done so, they would have! The whole idea of 'radical thinking' bringing about a 'paradigm shift' in economics is invalid because any change to it must address its facticity, *viz.* its mathematical tools, just as Einstein never could have developed special relativity without the Maxwell equations.

This tension is underscored in a maxim by Bohr: "Never express yourself more clearly than you are able to think." When speaking of mathematical models, conceptual knowledge or *episteme* is a byproduct of facticity, since it is often easier to abandon how we got to a result in favor of talking about the result by itself as an object; yet, this is undesirable to Bohr, likely because simplified statements are liable to be taken as metaphors which then acquire further associations that are entirely foreign (and often antithetical) to those that went into its creation. We then arrive at bizarre scenarios such as humanities students pontificating about neoliberalism to econometrics students who are incapable of putting into words the models and data sets that they've worked with all year. On the other hand, provided we are familiar enough with the 'factic' structure of a model, we don't lose anything if we ignore its *facts*. Words themselves are unnecessary. So Friedman's argument has much in common with another by Zhuangzi:[15]

> The fish trap exists because of the fish. Once you've gotten the fish you can forget the trap. The rabbit snare exists because of the rabbit. Once you've gotten the rabbit, you can forget the snare. Words exist because of meaning. Once you've gotten the meaning, you can forget the words. Where can I find a man who has forgotten words so I can talk with him?

More abstractly: *facts exist because of facticity; once you've gotten the facticity, you can forget the fact.* It makes sense to say this about economics due to its tautologous structure—i.e. its syzygy. However, the philosophical implications of this will become much clearer if we venture further into the structural similarities of economics and Daoism. Readers who feel they have the gist of the above points and are interested more in economic implications may skip to §4.

3 Hiding the World in the World: Economics & Daoism

Jarrod Fowler has proposed what he calls Laruelle's Paradox: "Rigorous science is nescience." I propose a special case of this rule inspired by Pierre Cerveau de Saucisse,[16] namely: "Any Theory of Everything must also be a theory of nothing." Translated into Daoist terms: *Daoism is a rigorous practice of hiding the world in the world by means of exogeneity.* The best exemplification is Lao Tzu's 道德经, ch. 1 (my translation):

道可道，	The knowledge that knowledges (knowledge)
非常道。	is not an eternal knowledge.
名可名，非常名。	The name that names is not an eternal name.
无名，	(Conceived of as) having no name,
天地之始。	it is (of) all things, the origin.
有名，	(Conceived of as) having a name,
万物之母。	it is of each thing the mother.
故常无欲，	Therefore: without desire
以观其妙，	one beholds the profound.
常有欲，	in constant desire,
以观其徼。	one beholds its bound.
此两者，	These two aspects are the same
同出而异名，	(in) source, but differ in their name.
同谓之玄。	Together we call them the mystery.
玄之又玄，	The (re)doubling of this mystery
众妙之门。	is of many profundities the door.

While I don't want to truncate Lao Tzu's polysemic meaning (which I hope to have conveyed via the use of parentheses), the following gloss will hopefully be helpful for confuzzled readers. By dealing in facticity-without-fact (*that* something is a fact, rather than a fact on its own), 'Why' questions are nullified. Economic writing is a non-writing that frames events in their contingency, where what *doesn't* happen is just as important as what does. Its nonknowledge is a knowledge (noun) that does not knowledge (verb). Likewise, an exogenous variable is a name that does not name, but which para-conceptually gestures outside itself toward all the causalities determining its numerical value, which in turn are determined-in-the-last-instance by the Dao—whatever *that* means...

But this ambiguity of what 'Dao' means is precisely what Lao Tzu addresses in his next paragraphs. We can think of the Dao not as a thing, but as a sort of contentless origin story or answer-that-doesn't-answer which lets us forsake metaphysical debates in order to focus on more important things. Lao Tzu *doesn't care* about questions like 'where do we come from' or 'what is the world made of' or 'what is the meaning of life'. Instead he uses the (non-)idea

of the Dao to 'unask' (无) such questions—this is why Lao Tzu's philosophy is non-correlationist, which is what makes it so interesting. Again, if we don't think of the Dao as a 'thing', we are left with the world just as it was before—but without reducing it to philosophical abstractions. There is no distinction between the 'world' we experience and the 'real' world, because everything is (in the last instance) the Dao, and 'Dao' doesn't mean anything. It's a kind of tautology, though one made according to radical immanence rather than from a transcendent logical schema (X = X). Put in less abstract terms: the Dao is not unthinkable, but *infinitely thinkable*—it's not imaginable or visualizable because it's such a fundamental component of all our cognition that it's impossible to isolate the Dao in order to analyze it on its own.[17]

Conversely, if we *do* think of the Dao as a thing, it becomes amenable to metaphors such as 'mother'. This is the Daoism that most people are familiar with—a religion. The Dao becomes a transcendental, unknowable deity-like abstraction. Lao Tzu does not necessarily denigrate the use of Daoism in this way (as *philosophy*). In fact, he hints that one cannot exist without the other. What interests Lao Tzu is how these two *uses* of the Dao (thing vs. non-thing; unthinkable vs. infinitely thinkable; transcendence vs. radical immanence) *interact* with one another: "The (re)doubling of this mystery is of many profundities the door." So I hope it's clear that I'm not a mystic. Nor am I, *à la* E.F. Schumacher, advocating a 'Daoist Economics'—I'm saying that economics *already is* Daoism, in that both seek a mode of thinking that is non-philosophical. Nevertheless, there is a fundamental asymmetry here: just as it's impossible to infer the richness of Lao Tzu's thought by listening to hippies talking about Yin and Yang, I claim that there's a similar disjunction between writing 'about' economics and writing *in* economics—though the former is overrepresented, especially on the internet, and most non-economists don't know there's a difference. The next section critiques the anti-economic philosophy in vogue since the financial crisis.

4 Against Philosophy 'of' Economics – A Reply to Critics

There is really no such thing as philosophy of economics. At best there are only philosophical accounts of epistemological questions *insofar as they relate to economics*. Of course, academia is replete with theories 'about' capitalism, but these overwhelmingly take the form of simply incorporating new phenomena into pre-existing (often Marxist) concepts—surely a degenerating research programme, which typically ignores *economics* altogether. Hence it is the 'of' (or the 'about') that is most important in any philosophy *of* economics: any worthwhile account of how economics works must be able to speak of economics in its own terms, without overcoding it through concepts. The closest anyone has come to this is the community of economics bloggers, quite a few of whom aim to 'debunk' mainstream economic theories, in favor of a focus on institutions or just more complicated math. In this section I will argue that most of the problems these bloggers identify can be attributed to philosophical ways of thinking, and that any critique *of* economics must break with the structure of philosophy entirely.

Economics is presented by such accounts as the correlationist discipline *par excellence*: economic models, as grids of variables' relations with respect to one another, are imposed upon the world; a good model is therefore one whose internal relations match (or at least reliably approximate) those of the actual objects being studied. My claim is that this is misleading, not to mention inappropriately abstract. The main problem of viewing the role of economic models this way is that if their usefulness is judged by their correlation to the world, but the very purpose of making these models is to *gain* information about the world, where do we get a secure idea of the world by which we can judge our models?[18] UnlearningEcon exactly hits upon this (thoroughly philosophical) problem when he suggests: "economists often assume their theories when interpreting reality, rendering many of their arguments circular." If this is so, then it is absurd to imagine that economic models can find anything more than what they're looking for—like the bed of Procrustes, everything that doesn't fit at the outset is cut away. UnlearningEcon offers the following counterpoint:

> [T]he advancement of science has often not resulted from superior 'predictions', but on identifying a closer representation of how the world works: the go-to example of this is Ptolemy, which made superior predictions to its rival but was still wrong. My answer is therefore the same as it has always been: economists need to make better use of case studies and experiments.

As indisputable as this first appears, I find it dissatisfying on several counts. (Note that I am not picking on UnlearningEcon specifically, but feel that he best articulates the following implicit theses.)

First, it demands that all of the statements of economics become subordinate to anecdotal (and thus conceptual) discourse, i.e. it demands that economics have a 'world'. Moreover, to give case studies a central role in the construction of economic theory implies that the ideal for economic theory is to develop a mode of analysis that is as richly detailed as the *actual* psychosocial processes that inform business decisions: in short, a (social) theory of everything. Instead, I agree with Friedman's claim that trying to do economics by asking businesspeople why they make their decisions "is about on a par with trying to do medicine by asking octogenarians how they account for their long life" (1966: 31). Whereas UnlearningEcon aptly draws attention to the unrealistic assumptions of economic theory, I don't believe that the connection between these and the empirical failings of economics is quite as direct as he would like.

Instead, I want to suggest that economics is a form of empiricism that is *non-anecdotal*—much like how statistics *makes use* of numerical properties insofar as they can generalize a sample, but never purports to 'represent' anything by its formulas. One example is how "the infinite is often the best approximation of the finite" (Ayache 2007: 262). It is well-known, for example, that the Fundamental Theorems of Welfare Economics are only tenable given the existence of a complete set of derivatives markets (Stiglitz, 1989). For all practical purposes, therefore, infinite arbitrage is the same as zero arbitrage. Moreover, even in the

cases of 'rational agents', economics makes use of properties such as the law of large numbers to internalize its own bias: if firms consistently go against economic rationality, after all, they will go out of business and be dropped from the sample. As an interesting consequence, it is not legitimate to think of economic principles either as synchronic (ahistorical) *or* purely as social constructions, which leads to our next point.

Second, UnlearningEcon assumes that economics centers on theory to the near-total exclusion of practice. In this view, theories are created (typically by ivory tower academics) as *a priori* knowledge, and empiricism is brought into the picture afterward for the sake of 'falsification'. Yet, this characterization is misleading. Economic knowledge is not general, but *generic*. Much of this disparity is captured in the distinction of 'laws' vs. 'principles'. It's curious, after all, that economics has been always been framed in terms of 'principles', though nobody can really say what a principle *is*. A scientific 'law' is universal, holding in all cases; 'general' differs from 'universal' mainly in terms of quantity, holding in *most* cases. 'Generic', however, is of a different order; Laruelle (2008) defines it as:

> a type of sciences or knowledges [*connaissances*] sufficiently neutral and devoid of particularity in order to be added to others more determined and co-operate with them, transforming them without destroying them or denying their scientific nature. They are capable of being added to others acquired in a more 'classical' way without unsettling what the latter take from their domain of object and legality, i.e. capable of transforming knowledge without philosophically destroying it.

This is illustrated through its writing. Economic writing is *allegorical* rather than metaphorical, insofar as it is self-contained.[19] Philosophers tacitly treat it as metaphorical (i.e. consisting of concepts), but this does not hold after closer scrutiny: a metaphor is characterized by *deviation from the norm* of linguistic use—that is, it is fundamentally *differential*. But since all ordinary use of language is caught up in difference(s) of all kinds, this radically 'neutral' or paradigmatic practice of language from which metaphors can deviate must be posited in the form of an axiom rather than sought out in reality. In the terminology of Group μ, this form of non-differential writing is known as *writing degree zero*, which they identify as "the ideal that scientific language aspires to achieve" (1981: 30). Degree zero "will rarely be seen in precise words but generally will be a series of constraints *on the elements* that could be used in certain situations" (1981: 32).

This corresponds to the fundamental genre constraint required for a statement to be 'economic': that is, it must be capable of being converted into mathematics, and of being used in a mathematical model of an economy. Put (anti-) philosophically, economic writing *de-differentializes* the conceptual/metaphorical writing of the other social sciences, stripping it of any fidelity to its original source. Whereas philosophical discourse reveals new distinctions that it then crystallizes into concepts, an economic model takes an interpretation of a set of

phenomena and annuls all contingency, making it into an elaborate tautology and sealing external distinctions into exogenous parameters.[20] Hence we can say that economics is *defined* by a constitutive unlearning, in the form of deconceptualizing knowledge into non-knowledge. It de-scribes (unwrites) rather than pre-scribes (sets conditions for further writing). The attempt to (re-)translate economics back into words is often called 'political economy', a euphemism for trying to do economics without math. Yet, this is limited by exogeneity: numbers can say more than words ever can. To détourne another quote by Bohr:

> *We must be clear that when it comes to political economy, language can be used only as in poetry. The poet, too, is not nearly so concerned with describing facts as with creating images and establishing mental connections.*

As soon as economics is spoken of, exogeneity is lost, and its allegorical structure is broken: it becomes 'political economy', which can never say what it does and do what it says, but must use metaphors in a roundabout way to express the inexpressible (rather than inexpressing the expressible). The crucial thing is to view this 'poetry' *as such*; otherwise political economist's role becomes reduced to repeating clichés that conform to his or her priors. This means forsaking representation in favor of a focus on readerly *effects*, entailing a reflexive, self-nullifying *use* of philosophical writing: an aesthetics of failure. After all, if philosophy's self-appointed task is to 'refine' the findings of the sciences into episteme, the task of economics is quite the opposite; it can thus be thought of as antiphilosophy. Laruelle writes: "The identity of the *with* (the One with the One, God with God), is the true 'mystical' content of philosophy, its 'black box'." We expressed this earlier by saying that the statements of economics occur within the *preposition* of a philosophical sentence—i.e. the black box of philosophy.[21] Thus to speak *of* capitalism we can never say the word: what, after all, could anybody possibly mean by 'with capitalism' (or any other preposition)?

My third objection concerns the term 'experiments', which involves several (ostensibly reasonable) theoretical choices made by UnlearningEcon that must be elucidated in depth before any critique is to be made.

5 Bayesian Probability vs. Menardism – or, The General Theory of Derp

It is clear that economics has few opportunities for natural experiments (much like in, say, meteorology) and that, as in quantum theory, the observer is not exogenous to the model.[22] UnlearningEcon frames his own argument in terms of the Lucas Critique, which shows how if rational agents will change their behaviour according to past policies, standard economic formulas such as the Phillips Curve (trade-off between inflation and unemployment) are socially constructed and are likely to change if relied upon too heavily in economic policy. This emphasis on performativity discredits a frequentist interpretation of economics, which assumes a stable context—implying that a Bayesian approach is

the only one that is viable. These arguments are convincing, and are certainly a step up from anti-economic ranting. Yet, they are philosophical, and as such external to economics. I will argue that economics is fundamentally non-Bayesian in its structure, without necessarily being frequentist. Inspired by the work of Élie Ayache, economics can better be thought of as generalized Menardism.[23] We will see how one of the major implications is that economics is not a theory of the event (or: of black swans), and that consequently it is a category mistake to assume that the financial crisis somehow means that economics has 'failed'.

Ayache summarizes his argument through Borges' tale of Pierre Menard, a Frenchman who decided to spend the final twenty years of his life rewriting Cervantes' book *Don Quixote*. However, Menard didn't simply *transcribe* the text—which anybody could do!—but actually *wrote* it. In fact, the narrator points out how "Cervantes' text and Menard's are verbally identical, but the second is almost infinitely richer." How can this be? In Bayesian notation we can depict Menard's situation as follows:

$$P(A) = \text{write Quixote, s.t. } \forall B, P(A|B) = P(A) = 1; P(B|A) = P(B)$$

$$\text{Thus: } P(A|B) = \frac{P(B|A) \cdot P(A)}{P(B)} = \frac{P(B)}{P(B)} = 1$$

Typically, if someone has a fixed opinion they are incapable of seeing beyond, it's a bad thing. Econ blogger Noah Smith has articulated in Bayesian terms the very handy concept of 'derp', defined as inanely repeating one's priors rather than engaging in actual argument. It is a useful concept precisely because we've all encountered it, and by giving it a name we can talk about specific cases of derp without being liable to the (unreasonable) demand that we directly refute the author's priors. In our notation above, derp occurs within the formula $P(A|B) = P(A)$, where any new information conflicting with one's priors is simply filtered out. In more intuitive language, if somebody's priors were truly strong enough that no new information could dissuade them from their beliefs, it *wouldn't matter* what new information they encountered: $P(B)/P(B) = 1$. Yet, derp is only a special (and relatively uninteresting) case of Menardism—in fact, from a Menardist viewpoint, Bayesian probability is *itself* a form of derp.[24]

Here's what Bayesian probability leaves out: even if Menard's probability of writing the *Quixote* is 1, since we're thinking in terms of sets he can still modify *that which is equal to 1*. This does **not** entail changing the text of the *Quixote*, but it means changing what we *mean* by the *Quixote*. Borges illustrates:

> It is a revelation to compare Menard's *Don Quixote* with Cervantes'. The latter, for example, wrote (part one, chapter nine):
>
> ...truth, whose mother is history, rival of time, depository of deeds, witness of the past, exemplar and adviser to the present, and the future's counselor. Written in the seventeenth century, written by the "lay genius" Cervantes, this enumeration is a mere rhetorical praise of history. Menard, on the other hand, writes:

> ...truth, whose mother is history, rival of time, depository of deeds, witness of the past, exemplar and adviser to the present, and the future's counselor.
>
> History, the *mother* of truth: the idea is astounding. Menard, a contemporary of William James, does not define history as an inquiry into reality but as its origin. Historical truth, for him, is not what has happened; it is what we judge to have happened. The final phrases—*exemplar and adviser to the present, and the future's counselor*—are brazenly pragmatic.

Because of the entirely different milieu in which "Menard's" text was written, its sentences are capable of significations entirely different from Cervantes' own! Menard's entire project as an author consists not of writing a new text, but of constructing a conceptual edifice such that he is capable of spontaneously generating the same utterances as in the *Quixote*, though *within his own milieu*. By (re-)writing the *Quixote*, Menard can seize upon subtle distinctions in the text, multiplying their significance with respect to the history of ideas since Cervantes' time, while remaining true to the text. As Ayache emphatically repeats: there is no *possibility* in Menard's writing, only *contingency*. In visual terms, he depicts this as "following a thread of changes of contexts, which...end up always instantiating the one possibility of the Quixote" (2010: 100), as in a Venn diagram where one dot fits in a range of circles (contexts). Normally an author is forced to both modify his or her priors in response to new information *and* shift their 'corpus' among different contexts, but it is only extreme cases like Menard's that let us isolate one from the other.

Step one in translating this into economics is replacing the term 'corpus' with 'world'. For Laruelle it is axiomatic that we always reside(/dwell) in a 'world' = 1. That is, any person's set of concepts, intuitions, and categories always form a *totality*, even if "this isn't the whole story" or "there's more to life than..." such-and-such. Even this feeling of lack itself (this such-and-such *as such*) contributes to the totality of the World. Even in the most parsimonious philosophical model, Self and Other (broad as these abstractions are) combine to form a whole. Completely ignorant views such as that the Middle East is filled with terrorists likewise serve this function of 'closure'. In fact, no matter how much or how little information we have, our 'world' will always be a totality. Hence any person hoping to *analyze* a worldview *without trying to correct it* (which would just create a different worldview) is, thanks to this non-philosophical axiom, in the same position as Pierre Menard.[25]

The development of an economic model is, if not treated as if it arose *ex nihil*, typically included in the (quite vague) Bayesian notion of 'priors'. This is a category mistake: we're *not* thinking about the probability of certain events, which we hope to update via new information. A cursory glance at the average economics paper reveals that correlations are tested, yes, but any opportunities for 'updates' are relegated to future papers. This is often taken as a failure on the part of economics, but—ironically—such critics are *themselves* using an improper model. Economics *starts* from conceptual, intuitive models based upon

discursive disciplines, and pares them down to their non-conceptual 'essence'. To recall our initial quotation by Bohr, economics elaborates *how and by what means discourses are* <u>*able to be*</u> *meaningful* by subjecting them to mathematical standards of operativity—it takes conceptual statements within a disciplinary ontology ('how the economy *is*') and shows in intricate detail how its concepts syzygytically interact to produce meaning. This should be obvious, but apparently it's not. Economics is generalized Menardism precisely *because* its algebraic models are elaborate tautologies. What separates a good model from a bad model is the extent to which it relies on *ad hoc* provisions and 'deus ex machina'-like axioms that lie dormant for a while, then tie everything together in the last minute. Heisenberg wrote of quantum theory:

> What we observe is not nature itself but nature exposed to our method of questioning. Our scientific work in physics consists in asking questions about nature in the language that we possess and trying to get an answer from experiment by the means that are at our disposal.

This is the same as UnlearningEcon's remark on the Procrustean nature of models, but with a non-correlationist twist: economics *decomposes* the statements of other disciplines into the worlds (ontologies) they presuppose, whose 'fit' with events is tested through a continual process of *recalibration* (Ayache, 2010)—but **not** to the World, however. The curious thing about talking about economics in a non-correlationist way is that it allows a much more *anthropological* discussion of the social construction of economic facts. From a correlationist view, we take a model (or 'grid', or 'syntax') and lay it on top of the world; its truth is judged by its correspondence. In a non-representational framework, however, someone is given a data set and asked to come up with a self-consistent interpretation that avoids absurdities and too many outliers. In the short term, after all, there is little point for economists to do 'fieldwork' in the ethnographic sense, since any data relevant to economists is *non-discursive*. Instead, those who work on economic policy are, within the confines of their office, forced to navigate a complex dialectic of politicians' and activists' ideals (invariably delivered in conceptual terms) of what would be desirable, with the syzygy of all the variables and relations within a model. The question is thus of the *meaning* of these ideals—in particular, their contingency as accounting identities *vis-à-vis* various data problems—with respect to what we can *say* about the phenomena at hand. Hence it is Menardist through-and-through.

For a grossly oversimplified example (representative of data problems more generally), Hughes and Irfan (2008) illustrate how crystalline and intuitive images of the world may hold only in extremely simplified cases, by noting the seeming cogency of indicators such as income of '$1 per day', versus their difficulty to define in economic terms. For instance, ceteris paribus, the value of $1 a day will reduce each year due to inflation, providing a downward bias to the number of the world's poor. But of course, not all things *are* equal: if we strictly remain within a $1/day metric, the number of the world's poor will shift each year according to the value of their country's currency relative to the dollar.

Even taking exchange rates into account is still problematic, given that market exchange rates express supply and demand for a given country's currency, which does not necessarily reflect wealth differentials among countries. This is why purchasing power indices are so important. These are based upon the amount of goods that money can buy in each country, but even this is ambiguous, due to the fact that purchasing patterns (and thus relative prices) differ in each country. To put the point paradoxically, cogent but simplistic indicators are *more abstract* than the intricate schemata of economics, which are required for the sake of *concreteness*.

To spell it out, Menardism in economics roughly takes place according to these steps:

1. There is a multiplicity of disparate discourses. (Pierre's milieu)
2. An economist arbitrarily chooses a topic. (Pierre chooses the *Quixote*)
3. Economists attempt to mathematize these discourses, framing accounts of the phenomenon in terms of their contingency as accounting identities with respect to data problems. (Pierre selects various concepts and discourses to frame the *Quixote*, with the end goal of consistency)
4. An internally consistent (i.e. tautological) interpretation is found; the model is 'solved'. Objects and difference fade away, and all that remains is the syzygy. (Pierre starts *writing*, in the process *forgetting* his conceptual matrix; contingency is lost and the *Quixote* is **possibilized**[26])
5. If a theory is 'correct', it is the only possibility, meaning there is neither possibility nor contingency. The idea is brought ~~back~~ into discourse, treated as an ontologized 'object', e.g. Milton Friedman's natural unemployment rate. (Pierre dies, leaves his *nachlass* to the narrator.)

The reason that Menardism is important in economics, but not the natural or other social sciences, is precisely its role as the science of non-discursive social relations: whereas discursive disciplines are able to draw upon structures such as *virtus dormitiva* or the constitutive vagueness of language (its 'fuzzy logic'), economics demands an austere clarity with respect to currently available mathematical tools. Another contributor to economics' non-Bayesian structure is the unique role of exogeneity. In Menardism, the *fact* of the corpus remains stable, and its *facticity* changes. This parallels how an exogenous variable remains the 'same' (i.e. has the same function) despite different values it can have in different conditions; after all, in different contexts the same number for a given variable can mean much different things! It is the *meta-level* 'of' economics to which Bayesianism is applicable, but it is unwarranted and unreasonable to demand that economics be Bayesian *all the way down*.

So while more data is always preferable to less data, 'experiment' as a category is inapplicable to economics because both the development of a model and its integration with other models must necessarily be Menardist. That is to say, the purpose of doing an experiment (that isn't simply replication or further confirmation) is to generate an *event* that is unable to be inferred from previous (non-)knowledge. This results in a change of context, on the level of *contingency*

rather than possibility—as Heisenberg says, in an intriguingly non-Bayesian fashion: "Every experiment destroys some of the knowledge of the system which was obtained by previous experiments." For any event (singular or experimental) the task of economics is to frame it in its contingency (i.e. all the accounting identities applicable to it), and then to progressively deconceptualize it until it can fit within the syzygy of a specific model. Therefore, the 'impact' of any singularity upon economics as a discipline is expressed only through changes in *what economists mean* in their use of common language. Critics like Nassim Taleb denigrate this as 'retro-narrative', but since there are no concepts (and consequently no narrative) in economics, this simply can't be the case; instead, Taleb is (somewhat disingenuously) expressing a second-order hatred for *episteme*, as expressed by economists in lucid, pared-down form (see the Appendix). Economics as a discipline cannot create retro-narratives, only people can—and it takes someone of genius calibre to be able to both develop original narratives *and* to deconceptualize them into useful models. So rather than as retro-narrative, economics works through inoperative 'sampling' of extant discourses, stripping them of metaphor, contingency, and episteme.

In many ways, actually, the plight of the economics student can be likened to that of Pierre Menard, in that there is a set corpus (the economic 'canon') which every student must figure out, by hook or by crook, how to accept as it is. Regrettably, this often takes the form of simply *not thinking*—the reason being that this corpus defies every remotely normal definition of *knowledge*. Students are forced to take classes they don't care about solely for the sake of being prepared to take other classes, which in turn prepare them for other classes they don't care about. By the time they get to grad school they're finally prepared to model an economy with more than two kinds of consumers. What's more, they also find out that everything they learned in their undergrad was bullshit: supply and demand curves can slope in any way, etc., etc. Does this really respect students as human beings? Dostoevsky wrote: "If one wanted to crush and destroy a man entirely, to mete out to him the most terrible punishment...all one would have to do would be to make him do work completely and utterly devoid of usefulness and meaning."[27] This seems quite applicable to economics students, who have neither the opportunity to develop their own ideas (*à la* humanities students), nor even the consolation that what they're learning is 'true' (science majors). This is why the next section is dedicated to practical suggestions, based on the above points, for making their ordeal more bearable.

6 Economics as Rigorous (Ne-)science

There has been much recent debate around reforming the teaching of economics in response to the financial crisis. Yet, much of this is symptomatic of Philosophy trying to shape economics in its own image. Economics doesn't need to be reformed. In fact, I can't imagine how economics departments could be any less fascist than they already are. I think that this confession (adapted from here) is representative of most students' experience:

You find you somehow got tricked into getting a math degree. Your friends who read the paper, which you longer have any time to do, know more about the economy than you...

There is no episteme ('know-what') in economics. You never feel like you know anything. You're paying ***not*** to learn. Your 'education' consists of endless sets of useless mathematical games that couldn't possibly refer to the world. Some people *like* this—perhaps math comes naturally to them, and an econ degree is easy compared to a science degree. The lucky ones just put in their time every day, without any desire for knowledge about the world. Others adopt various crackpot theories: they become goldbugs, or communists, in a frenetic attempt to inject meaning into their lives. Others become 'heterodox', gloating that they alone see how self-evidently bankrupt economics is, and demanding that it change to fit *them* and not the other way around. Still others come from poor families, studying economics in the hope of escaping the class cycle; often their only reason for not killing themselves is that their exorbitant amounts of student debt would bankrupt their family. Your one consolation as an econ student is that you can spot shoddy reasoning, even if you can't quite identify why it's bullshit. Yet, anyone who tries to *think* meets with prompt psychological punishment for it, and eventually regrets ever reading a book that wasn't on a syllabus. Nothing is more clear to you than that if there is a 'logic of capitalism', as the Marxists like to say, it certainly isn't that of the philosopher.

Yet, the elements of economics that students hate most are often crucial to the structure of economics as rigorous nescience; without them, economics would just be more philosophy, which is the last thing anyone needs. My hope is that this can be *made clear* to people: the reason we have words for abstract concepts in the first place is so that we can talk about them *as such*. I think it's important to explain how because of properties like exogeneity, numbers can 'say' more than words ever can.

So rather than any positive changes to the corpus of economics, my practical suggestion for economics curricula is to directly emphasize those cases where conceptual accounts of economic phenomena seem very convincing *a priori*, but fall short (or are actually meaningless!) when examined in holistic/quantitative terms. An example is the common myth that China's growth is export-led, as expressed by the common misconception that exports as a share of GDP translates to 'exports make up x% of a country's economy'. In fact, exports divided by GDP is typically a meaningless number. This is shown by the fact that Hong Kong and Singapore's exports were over 200% of its GDP in 2006, which would imply the absurd conclusion that exports were twice as big as their economies (UBS, 2007). Rather, these values are overstated because typical export statistics do not account for *intermediate inputs*, which comprise roughly two-thirds of GDP. An example is Australian auto parts that are imported by China, assembled, and then exported to the USA, which grossly overstates the US-China trade deficit, since most of Asia's goods reach the USA through China.[28] As Lamy (2011) points out, these overstated figures have direct political effects, ranging from protectionist lobbying to diplomatic disputes. What we really want to

know is the *value added* by China. After correcting trade figures to better reflect value-added, the US trade deficit with China shrinks 40%, and the US-Japan imbalance actually rises by 33% (Johnson & Noguera, 2011). To phrase the point in a gimmicky way: instead of 'Made in China', most products should really say 'Made globally'. It really does matter.

No positive changes or 'reforms' need to take place in order to make economics bearable. Even Mike Konczal's relatively benign suggestion to teach macro before micro is in danger of degenerating into 'world-creation'—or: teaching 'the economy' instead of economics. Rather, the real change that needs to occur is in economics **pedagogy**, by providing students with the formal tools necessary to see how various urban legends are vacuous or based on fallacious logic. The task of the economics professor is *de-worldification*—or, showing students that they 'know' ~~even~~ less than they think they do. If, after previously having no reason to question a given narrative about the economy, a teacher patiently explains to me how it couldn't possibly be the case, that's cool. That's *damn* cool.

Conclusion: Prolegomena to a Theory of Capitalism

This essay has introduced the notion of correlationism and how to break from it, using Daoism as an example of non-correlationist philo-fiction. The theme of non-representationalism was then extended to the discipline of economics, where the notions of deconceptualization, exogeneity, nonknowledge, and syzygy were shown to be crucial to such a framework. Examples were used sparingly because this interpretation is intended to apply to the entire corpus of economics *as performed in practice*—though still-perplexed readers are directed to the endnotes. Following this general outline of 'econo-fiction', its precepts were contrasted with those of common anti-economic views possessing a correlationist structure, in response to which three main theses were put forth:

1. Economics is not a 'theory of everything', but a non-anecdotal empiricism of-the-last-instance.
2. Instead of *a priori* knowledge, economics is a generic method of deconceptualizing or unwriting.
3. Economics is radically non-Bayesian—a nonknowledge that frames events in their contingency.

These were translated into practical advice for economics pedagogy, rather than 'reforms'.

The term 'econo-fiction' describes economics as viewed from a non-correlationist lense; the term is adopted from Laruelle, who is himself inspired by the 'fictionalist' school of mathematics. It is not a research programme but an interpretation (in the sense of 'the Copenhagen interpretation of quantum mechanics'), not a position but a stance. Most of economics is already econo-fiction; consequently, if practicing economists feel that I said little more than trivialities dressed up in grandiose verbiage, I could think of no better compliment. My aim was precisely to articulate in philosophically acceptable terms the reasons why philosophies

'of' capitalism are, in the eyes of economists and businesspeople, bullshit. And if, because of this essay, even one philosophically-inclined economics student finds it easier to bear their regimen of meaningless problem sets, it will have been worth writing.

The main point of this essay has been to show how the vast majority of anti-economic sentiment is symptomatic of the structure of Philosophy, which judges economics by its own standards and (necessarily) finds it 'flawed'.[29] I therefore took a sort of perverse satisfaction in taking the concepts of Continental philosophy—in which Marxist conclusions are tautologically contained—and mutating them until they gave rise to pro-capitalist conclusions that they were manifestly not designed for. In practice, poststructuralist social theory is little more than a collective Monte Carlo generator of opinions, where nothing is so sensible that some philosopher or other won't rebel against it—i.e., where 'critical thinking' invariably means 'denouncing all existing conditions'. In short, concepts such as 'neoliberalism' and even 'capitalism' (as philosophers use it) are *intra-philosophical* only: to say that something happens (or doesn't happen) "*because* of" neoliberalism is empty rhetoric, and to even use the word 'capitalism' is liable to determine one's conclusions from the outset. While as poetry it may be valuable in creating new *material* for economists, the essential condition for an economic theory to be *useful* is that it must deal with numerical data for its own sake, rather than cherry-picking data points to suit one's priors.

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Notes

[1]The original is: "There is no quantum world. There is only an abstract quantum physical description. It is wrong to think that the task of physics is to find out how nature *is*. Physics concerns what we can *say* about nature." See Petersen (1963: 12).

[2]This isn't my original formulation, but I forget the original source.

[3]A classic example of a non-correlationist philosopher is David Hume, who argues that there is no inherent link between cause and effect, and that consequently there can be no hard-and-fast distinction between thoughts and objects, since both are just bundles of impressions and sensations (respectively), differing only in intensity. Meillassoux's own project in *After Finitude* consists of starting where Hume left off, and developing an alternative to Hume's 'solution' to the problem of induction.

[4]Zhuangzi (1999: 95). The Chinese text (trans. Qin, X. & Sun, Y.) is from ibid., 94. The full English excerpt is:

> To hide a boat in a ravine and to hide a fishing-net in a swamp can be said to be safe enough. But at night a strong man might come and carry them off on his back while the owner who is fast asleep knows nothing about it. To hide something small in something large is reasonable enough, but there is always the possibility of losing it. Hide the world in the world and the world will never be lost—this is the eternal truth. Tao has endowed man with his physical form and man finds joy in it. As this physical form is going through endless transformations, the joys will be beyond calculation. Therefore, the sage dwells in Tao where nothing will be lost and thus lives with it forever. Young and old, alive and dead, the sage always serves as a model for all. How much more important is Tao, on which everything in the world relies and every change depends!

[5]If anyone objects to my use of the term 'science', let me at least suggest that there *needs* to be a science of non-conceptual social relations, and that—regardless of its flaws—economics has stepped in to fill this niche. Even if the heterodox claims are correct that economics is fundamentally bankrupt, the interesting question is *why* economics has retained the form that it has. Many are satisfied with the idea that economists are stupid and just do as they are told, but I find this hand-wavey. The present essay aims to point out some formal properties of economics that allow it to be non-conceptual, even if these elements are the ones most hated by students.

[6]For the non-economist, a good example might be defining 'firms' in terms of elasticity (Friedman, 1966: 35):

> A firm is competitive if the demand curve for its output is infinitely elastic with respect to its own price for some price and all outputs, given the prices charged by all other firms; it belongs to an 'industry' defined as a group of firms producing a single 'product'. A 'product' is defined as a collection of units that are perfect substitutes to purchasers. So the elasticity of demand for the output of one firm with respect to the price of another firm in the same industry is infinite for some price and some outputs. A firm is monopolistic if the demand curve for its output is not infinitely elastic at some price for all outputs.[29] If it is a monopolist, the firm is the industry.
>
> [29] This ideal type can be divided into two types: the oligopolistic firm, if the demand curve for its output is infinitely elastic at some price for some but not all outputs; the monopolistic firm proper, if the demand curve is nowhere infinitely elastic...

[7]As John Stuart Mill writes (1844, essay V, §3; my emphasis):

> All [human] operations, though many of them are really the result of a plurality of motives, are considered by Political Economy as flowing solely from the desire of wealth. The science then proceeds to investigate the laws which govern these several operations, under the supposition that man is a being who is determined, by the necessity of his nature, to prefer a greater portion of wealth to a smaller in all cases, without any other exception than that constituted by the two counter-motives already specified. *Not that any political economist was ever so absurd as to suppose that mankind are really thus constituted, but because this is the mode in which science must necessarily proceed.*

[8]Exogeneity is not a *concept* per se, but a property acting *between* concepts, which I express by the term 'para-conceptual'.

[9]Kieran Daly, in a personal communication, has emphasized that these numerical properties must be viewed as extrinsic to a 'stat', which is thus a singly structured multiple, without Difference or ontology. Econometrics introduces many interesting issues that can't be addressed here; one is to problematize the legitimacy of separating the formulation of theoretical models from the conditions by which they may be rendered econometrically falsifiable—i.e. whether we should separate algebraic models from the statistical models used to obtain its exogenous variables. It will be the focus of a future paper to analyze econometrics via econo-ficton.

[10]See for instance *Philosophies of Difference*, ch. 7. Just as Kurt Gödel's extremely intricate logical apparatus could be said to originate from the paradox 'This statement is false', my claim is that Laruelle's system can likewise be approximated through the notion of *virtus dormitiva*. Gödel described his project as revealing holes in logic, one of which was that "no claim of the form 'claim x can't be proved' can be proved" (Boolos, 1994: 1). Similarly, Kant's *Critique of Pure Reason* identified various 'holes' in logic, which are typically 'filled' by metaphysical entities such as 'God'. Laruelle, on the other hand, tries to show that there are 'holes' in our use of concepts such as Being or All; he takes these holes (e.g. the One, the generic) as objects and tries to work with them.

[11]Even if it were not clear already, we can tell that supply and demand curves are conceptual because they follow the *virtus dormitiva* structure: people make purchases because of their supply curve, and we infer their supply curve from people's purchases.

[12]Much of what purports to be philosophy 'of' economics just takes objects considered to be 'economic' (such as labor or utility) and relates them to other philosophical concepts. But since an economic object gains its meaning through its coalignment with other economic objects in a model, this more or less defeats the purpose of using these objects in the first place.

[13]Ayache (2010: 329) quotes Manuel DeLanda: "Gauss realize that the calculus, focusing as it does on infinitesimal points on the surface itself (that is, operating entirely with local information), allowed the study of the surface *without any reference to a global embedding space*." For our purposes, we can interpret this as meaning there is no need for 'the economy' (or even 'the world') as an abstraction to provide 'spatiality' within economic graphs.

[14]It may be helpful to note that *fact-without-facticity* corresponds to the One (in Laruelle) and the Dao (in Zhuangzi).

[15]This is Burton Watson's translation, which is far more mellifluous than that of Wang (in Zhuangzi, 1999: 473).

[16]I call this formulation the 'Cerveau de Saucisse Paradox'. The curious reader is directed to Cerveau de Saucisse (2008)—by far the most profound commentary on Élie Ayache's work to date, which I intend to liberally cite in future expositions of Ayache.

[17]The reader who is familiar with Laruelle's work will realize that I am substituting the word 'Dao' for 'One'. Laruelle's choice of the term 'One' is—due to the mystical connotations it has picked up—an equally good example of the (re)doubling Lao Tzu mentions. It is *not* a transcendental One-All in the style of Spinoza, but radical immanence (not absolute immanence) without any sort of transcendence. It is not One in the numerical sense, but rather in the French sense of *un* as indefinite article (*un chat* – a cat); this might be conveyed in English through phrases like 'a green one'.

[18]Élie Ayache extends this point in a more abstract and perhaps even more interesting direction when he notes:

> Philippe [Henrotte]'s main criticism against the Arrow-Debreu paradigm was that prices that come out as the result of probabilistic computations based on 'abstract' states of the world, according to Arrow-Debreu, will themselves constitute new states of the world (of the market).

[19]I am inspired here by Plotnitsky (2002).

[20]A somewhat abstract example of de-differentiation is how Piero Sraffa takes as material Ricardo's theory of political economy—with its unique focus on relative quantities—and (in)expresses it through his standard system, mutating it into a system of tautologies amenable to analysis via linear algebra.

[21]Laruelle uses odd examples, so it might be helpful to elaborate. If a mystic says "I am one with the universe," I know what 'one' means, I know what 'universe' means, but I don't know what he or she means by 'with'. All of the *work* that makes this sentence meaningful is contained *within the preposition.* The same, I argue, holds for sentences 'about' capitalism. This is the reason that I have throughout this essay placed certain prepositions in scare quotes.

[22]Cf. Bohr: "in the drama of existence we are ourselves both actors and spectators." Friedman (1976: 267) adds:

> In both social and natural sciences, the body of positive knowledge grows by the failure of a tentative hypothesis to predict phenomena the hypothesis professes to explain; by the patching up of that hypothesis until someone suggests a new hypothesis that more elegantly or simply embodies the troublesome phenomena, and so on ad infinitum. In both, experiment is sometimes possible, sometimes not (witness meteorology). In both, no experiment is ever completely controlled, and experience often offers evidence that is the equivalent of controlled experiment. In both, there is no way to have a self-contained closed system or to avoid interaction between the observer and the observed. The Gödel theorem in mathematics, the Heisenberg uncertainty principle in physics, the self-fulfilling or self-defeating prophecy in the social sciences all exemplify these limitations.

While it would be fascinating to venture into the implications of Gödel's incompleteness theorems for economic theory, this is far beyond the scope of the present essay. It may be the case, however, that an econo-fictional approach is needed to get beyond these (formidable!) problems: see Laruelle, 2013.

[23]Thanks to Joe Weissman for this formulation.

[24]Thanks to Nathan Tankus for inspiration here. To spell it out, Bayesian probability is (meta-)derp because it has a specific theory of knowledge (where the world $\neq 1$) which can't be justified by argument and can't be falsified, but which it incessantly repeats.

[25]Laruelle himself goes quite a bit deeper, arguing (in a nutshell) that our division between world & 'world' itself contributes to this totality. In his theory of philosophical decision he sets out a full schematic account of this division between 'data' and 'facts'.

[26]Since we have portrayed Menard as a Bayesian, it is interesting to consider Albert Camus' myth of Sisyphus as a frequentist version of the same plight. In Greek mythology, Sisyphus has been condemned to an eternity in Hades for his sins, where his sentence is to push a giant stone to the top of a hill, whereupon the stone rolls back to the bottom and Sisyphus is forced to repeat the process over and over again. Camus uses this myth as a metaphor for the irreducible absurdity of life. The most striking difference between the two 'myths' is that although the final line of Camus' essay is "One must imagine Sisyphus happy," Ayache instead emphasizes "The very sad writing of Pierre Menard" (§4.1.4). One might venture to guess that Menard is sad and Sisyphus is happy because Sisyphus is not faced with the obligation to *write*.

[27]I can't find the reference for this, so it may be apocryphal.

[28]According to a U.S. Congressional Budget Office report (2008: 5): "The fact that China has been the location for final assembly of products from all over Asia over the past decade and that, consequently, part of the U.S. trade deficit with China is actually a trade deficit with all of Asia funneled through China is evident from estimates from the study of the percentage of the foreign intermediate inputs in Chinese exports that come from various countries.... Japan, the Four Dragons (Hong Kong, Taiwan, South Korea, and Singapore), and the rest of Southeast Asia supplied 58 percent of the foreign intermediate inputs used in China's exports in both 1996 and 2005. Adding in the additional Pacific Rim countries of Australia and New Zealand raises the total to 63 percent for 1996 and 62 percent for 2005."

[29]If anyone should make the banal objection that this essay is itself philosophical, I will just quote Wittgenstein's *Tractatus* (6.54): "My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless, when he has climbed out through them, on them, over them. (He must so to speak throw away the ladder, after he has climbed up on it.)"