

METAPHYSICS
OF
CONSENT

MIARA SUNG

What we say must seem stupid to the regulators; the unbroken code of our enchanted, inkantatory refreshment of the paraontological totality – theorizing what it is to hold some land or what it is to be let to hold twenty dollars – is so much undercomputational nonsense to the ones who cannot see the con/sensual, contrarational beauty of blackness, the universal machine. (Fred Moten, *The Universal Machine (consent not to be a single being)*)

The world “happens” while God calculates; if the calculation were exact, there would be no world.

(Gilles Deleuze, *Difference and Repetition*)

TABLE OF CONTENTS

PREFACE	5
1. THE IMPASSE OF REPRESENTATION	7
2. TO AFFIRM OR NOT TO AFFIRM?	21
3. DEALING WITH KANT	33
4. A PARADOXICAL TANDEM	49
5. METAPHYSICS OF CONSENT	58
6. THE DOMAIN OF MEAT AND FLESH	92
7. THE LOGICAL PROPOSITIONS THAT BECAME FLESH	103
8. INTERMISSION	119
9. LIBERAL CONSENT	125
10. SOVEREIGNTY AND THE UNIVERSAL MACHINE	133
11. EPIPHENOMENOLOGY OF THE METAPHYSICAL CRIME	143
12. THE COMIC FORCE OF FILIAL PIETY	148
13. MONEY IN THE JOSEON DYNASTY	154
14. CONCLUSION	174
15. ON METHOD	180
 APPENDIX	 187
 BIBLIOGRAPHY	 191

PREFACE

This book is a project of syncretism. I mix contemporary French philosophy (Deleuze, Badiou), modern philosophy (Kant), Confucian thought (Mou Zongsan, Yi I), black studies (Moten, Bey, Nadler), analytic philosophy (Kripke, Kimhi), and mathematical logic (Kripke, Scott). Mathematical logic is the adhesive, the spine that runs throughout the book connecting the schools of thought. I use mathematical logic because it offers a form that brings disparate schools of thought into productive conversation. But this is not an innocent choice, and I believe it is ultimately a choice that needs be dissolved, because while mathematical logic is probably our best weapon for thinking the form of nothing, it may prevent us from inhabiting nothingness. To inhabit nothingness until we no longer need to: that is the goal.

Section 1 is a metaphysics as I see articulated by the cast of thinkers, rearticulated in mathematical logic to put them in conversation. In chapter 1, I start with Badiou's idea that the event is formally undecidable. But that is about as far as I agree with Badiou. I depart rapidly from Badiou, as he immediately builds a subject around his event, while I say the event must abolish the subject. In chapter 2, I move to Deleuze's notion of difference and his interpretation of Nietzsche's eternal return. Difference is an important conceptual ground of my metaphysics and even an ethical principle as what is to be affirmed. The question is what happens when there is difference that cannot be affirmed. I argue that unaffirmable difference manifests because of what I call metaphysical crimes, which are historical events that must be dealt with by inhabiting nothingness. In chapter 3, we deal with Kant and liberalism, offering Kant a path into our thought. Chapter 4 is the core of this book: a positive articulation of the metaphysics of consent through fixed point semantics. Fixed point semantics is invoked as a way to resolve self-

referential paradoxes into a thinkable form, and consent is formally identified as a fixed point. I distinguish the thin idea of liberal consent, a check in the box, with a thicker idea of consent as sensating-together. Chapter 5 concludes the section with what it might mean for logos to be in the flesh, with Kimhi in conversation with Kripke. Section 2 is what falls out of the metaphysics: phenomenology, ethics, political economy. Firstly, I describe a phenomenology of the thick notion of consent. Then I move briefly into Confucian thought as a way to avoid the Oedipal trap that plagues Western theories of sovereignty. Finally, I outline an intellectual history of the Joseon dynasty as a society governed by thick consent.

In Confucian thought, the Rectification of Names is the program for clearing thought of confusion: we have to examine very carefully what we mean by the terms we use before we can think clear thoughts. This is one reason mathematical logic appeals to me: it defines its terms carefully. I realized the word “consent” needed rectification, and that is what I set out to do in this book. This book is a rethinking of consent not as a linguistic or juridical concept but as the foundation of a metaphysics.

When writing a syncretic work, it is difficult to know who can evaluate it. I hope you will follow the references, read the texts, and evaluate it for me, as I have read the texts carefully and, I believe, interpreted them productively. Any comments or questions should be sent to my email miarasung at gmail dot com.

It is springtime here in Korea. I want to quote from the *Donggyeongdaejeon*:

Last night, after spring wind passed,

Ten thousand trees knew time at once.

1. THE IMPASSE OF REPRESENTATION

What does it mean to represent, and what does it mean to compute? Representation is a philosophical notion, and computation is a technical notion. I will start with the definition that representation is computation, and computation is representation. I start with this definition not because I believe in it but because my enemies do, and I want to give my enemies the surest footing they want. To make the footing precise: by “compute” I always mean “compute with a Turing machine”. By “computable” I always mean “computable with a Turing machine”, which in standard terminology means “computable with a Turing machine in finite time”. In less technical language, to represent is to have some sort of algorithm that describes, in finite time, whatever is being represented. By the midpoint of the book, this surest of footings shall slip out under my enemies’ feet.

But to do so, we must litigate the relation between the philosophical and the technical. This is no easy relation to be papered over. Stiegler says in *Technics and Time* that at the root of philosophy is the dissociation of episteme and techne. Episteme is accorded the status of true philosophical knowledge, and techne is denigrated as mere sophistic calculation. The split can be seen in analytic and continental philosophy. Broadly, analytic philosophy tries to do philosophy with technical content, but generally refrains from making grand metaphysical gestures. Continental philosophy, on the other hand, is less concerned with technical matters and more concerned with grand metaphysical pronouncements. One philosopher who cannot be easily categorized into either is contemporary philosopher Alain Badiou, son of mathematician Raymond Badiou. Alain Badiou (henceforth just “Badiou”) has done continental philosophy with

technical, mathematical language. Immediately the question: is mathematics mere techne? We will not concern ourselves with this question for now, but simply note that both mathematics and techne involve calculation and thus computation in some sense.

Badiou would probably take offense to the suggestion that mathematics is mere techne. In his magnum opus, *Being and Event*, Badiou states that “mathematics *is* ontology”¹. For Badiou, mathematics is not merely an object of philosophy but provides a “direct illumination of philosophy”. Badiou speaks of the “relation between mathematics and philosophy” as such:

In order to address the relation between mathematics and philosophy, we must first distinguish between the grand style and the little style.

The little style painstakingly constructs mathematics as an *object* for philosophical scrutiny. I call it ‘the little style’ because it assigns mathematics a subservient role, as something whose only function seems to consist in helping to perpetuate a well-defined area of philosophical specialization. ...

The grand style is entirely different. It stipulates that mathematics provides a direct illumination of philosophy, rather than the opposite, and that this illumination is carried out through a forced or even violent intervention at the core of these issues.²

Badiou says philosophers of mathematics who work as if mathematics were a mere object of philosophy are purveyors of the “little style”. He positions himself as a practitioner of the “grand style”, which uses mathematics not as an object of study but as the spine of philosophy, which

¹ Badiou, *Being and Event*, 4.

² Badiou, *Theoretical Writings*, 7.

carries out “a forced or even violent intervention at the core of” philosophy. *Being and Event* is an exposition of set theory as ontology. Badiou presents each axiom in Zermelo-Fraenkel set theory, interprets them philosophically, and derives an ontology from the set theory. The classic Badiouan insight, stated very informally, is that when a formal system refers to itself, it cannot leave out the possibility of the event.

But before we get to the mathematics, what motivates Badiou is concerned the tension between the multiple and the one. “If being is one, then one must posit that what is not one, the multiple, *is not*.”³ The one and the multiple are essentially opposed: either being is one, or being is multiple, but it cannot be both. When we look at the world, we see things that are essentially multiple: on a given desk, there might be several books, a cup of coffee, a phone, and so on. However, the things cohere in a certain way: they are in an essential unity, a oneness, that is something like “the desk I work on”. Badiou’s wager is that the multiple *is*, and the one *is not* – that there are things on the table, but no essential unity. But he does not excise the one from ontology. His solution is that while multiple things which are presented to us *are*, they are also *one* as an *operation* he calls the *count-as-one*: “What has to be declared is that the one, which is not, solely exists as *operation*”⁴. In just another moment he calls the count-as-one the “structure”. The basic picture is: while multiple things are presented to us, they are one as a structure. But it is crucial that the one, the structure, exists only as *operation*. The one is not a stable thing that results from a count-as-one; it is the operation itself. This is a subtle point, so it might help to think through the implications of what it would mean if the one were a stable thing

³ Ibid., 25.

⁴ Ibid., 26

that resulted from a count-as-one. Given a table with multiple things, I count the things as one. But then what I have, the table-as-one, is itself one thing. So the table-as-one could also be counted as one among others. Now I turn my gaze and look at the kitchen. There is a pan, a fork, and a garbage can. I count those things as one. Now I have the kitchen-as-one and the table-as-one. I count these two as one. And so on, until I have counted everything as one. At the end will be some entity that is one. But we got to this one entity as a result of counting multiple things. Which is it: are there multiple things, or is there only one thing? We are forced to say both. This is a logical contradiction, for either there are multiple things, or there is only one thing. Badiou's insight is that we can preserve our very sane intuition that there are multiple things, while also giving an account for how they cohere as one, by saying that they cohere as one, but that this resulting one is not a thing at all. This one, or rather count-as-one, is a structure, a process, an operation.

If the count-as-one is a structure, what sort of structure is this? For Badiou, the only way we can describe this structure is with set theory. A set theory is usually defined by first-order logic with a number of axioms. Badiou chooses Zermelo-Fraenkel set theory without the axiom of choice; this is not arbitrary, as he dedicates Meditation 22 on why the axiom of choice is counterrevolutionary. For Badiou, set theory and its axiomatization is not optional: “axiomatization is not an artifice of exposition, but an intrinsic necessity. Being-multiple, if trusted to natural language and to intuition, produces an undivided pseudo-presentation of consistency and inconsistency, thus of being and non-being”.⁵ We *must* go through set theory to

⁵ Ibid., 47.

understand ontology. While his prose can be beautiful, Badiou is deeply suspicious of poetry, at one moment calling poets “complicit in death”.⁶ Natural language won’t do.

I have my sympathies here with Badiou: not only is the point to be conveyed about ontology so surgical and precise, it is so coldly beautiful that explaining it in natural language would feel like butchering a joke. My only reservation is that I will use computability theory instead of set theory. There are a number of reasons. First, we do not lose any precision by using computability theory. Computability theory has all the formal structures that Badiou is looking for, and not in a metaphorical way but in a proven mathematical sense: it is a well-known theorem that Turing machines correspond exactly to recursively enumerable sets in Zermelo-Fraenkel set theory. A proof in Zermelo-Fraenkel set theory is a terminating program: any proof in Zermelo-Fraenkel can be expressed as a Turing machine computation and vice versa. Second, computability theory has the added advantage that it is more accessible, as it requires no specialized knowledge other than basic programming to explain. Third, it is more flexible, not being bound to a single axiomatic system. In fact, the Church-Turing thesis says every effective computation can be carried out by a Turing machine. The thesis is widely believed to be true, and it means that computability theory is able to capture most, if not all, intuitive notions of rule-following just by modeling it on a Turing machine. Still, we have to build a mapping that shows how to import Badiou’s set theoretic ontology into our computability theoretic ontology. The seasoned Badiou reader might worry that this means we will lose Cohen forcing, and Badiou’s construction of the Subject which follows from forcing. It is true that computability theory has no real analogue to forcing. But this is not a problem, because to lay my cards on the table, my

⁶ Ibid., 57.

theory will not require a subject at all. For our purposes, there is just one core concept we need to import: the concept of the event. While Badiou constructs with forcing a Subject faithful to the event, we will instead show how to abolish the subject with the event. Let's see how the concept of the event can be imported.

In Meditation 7, Badiou talks about the power set axiom of Zermelo-Fraenkel set theory as crucial to his ontology. The power set theorem says that for any given set a its power set $p(a)$ exists, which is the set of all its subsets. Badiou says “the set $p(a)$ of all the subsets of a is a *multiple essentially distinct from a itself...* [it] is essentially ‘larger’ than the initial multiple.”⁷ Badiou says that taking the set of all subsets creates an ontological impasse, in the sense that the set of all subsets $p(a)$ is not just another multiple that can be assimilated into a . This gap “between $a \dots$ and $p(a) \dots$ is, as we shall see, the point in which the impasse of being resides.”⁸ There is an impasse between the two. It is not an assimilable difference but a glaring gap. Why is this so? Badiou says this point is so fundamental it will “lead us all the way to the Subject and to truth.”⁹ We could follow Badiou's philosophy all the way, but we can also see this in the straightforward fact that if a has n elements, $p(a)$ has 2^n elements. 2^n is obviously larger than n , but the point is not just that it is larger. The distinction between n and 2^n is deeply related to the distinction between countable and uncountable infinity, and in turn to the distinction between computability and uncomputability. Cantor's theorem says the power set of a countably infinite set is uncountably infinite. This implies that the cardinality of the countably infinite set is $\aleph_0$, and the cardinality of the uncountably infinite power set is $2^{\aleph_0}$. But this is also the reason why

⁷ Ibid., 87.

⁸ Ibid., 87.

⁹ Ibid., 84.

uncomputable problems exist. There are a countably infinite number of Turing machines $\{0,1\}^*$ because each Turing machine can be described by a bitstring of arbitrary length $m \in \{0,1\}^*$, and an uncountably infinite number of languages because each language can be described by a subset $s \subset \{0,1\}^*$. A language can be described by such a subset because a language is defined as the set of bitstrings that are members of the language. For example, the language **PALINDROMES** is the set of bitstrings which are palindromes in some alphabet. Badiou's fundamental insight is that the power set axiom authorizes a vast gap between a and $p(a)$, and this gap is the gap between what he calls the presented (a , the set, or the Turing machine) and the represented ($p(a)$, the power set, or the language). Let us focus on the "presented" and the "represented". Badiou says the multiplicity is what is presented, and as we have seen, he wagers that the multiple *is* while the one *is not*. So what is presented *is*. But Badiou says there is always a structure to the multiplicity, which he calls the count-as-one. This structure is Zermelo-Fraenkel set theory, first-order logic with its axioms. The multiple, along with its structure, Badiou terms a *situation*. Now Badiou is concerned with what we might call the count-of-the-count-as-one: "once counted as one in a situation, a multiple finds itself *presented* therein. If it is also counted as one by the metastructure, or state of the situation, then it is appropriate to say that it is *represented*."¹⁰ So we have Badiou's definition of the represented: it is the metastructure, the structure counted as one, the count-of-count-as-one. A multiple, counted-as-one and presented in a situation, is then counted again as one to be represented. There are two operations here: the count-as-one and the count-as-count-as-one. The first, the count-as-one, prepares the multiple to be thought of in set-theoretic terms. Notice we have not done any set theoretic operations on

¹⁰ Ibid., 103.

them; we have simply decided to bring the set theoretic edifice to the fore, to see the multiple in terms of set theory. In our computability theory substitution, we can consider this as preparing things in the world to be analyzed by a Turing machine, making them into data. But we might be suspicious of an ontology that starts by making the world into data. Maybe there is some remainder that could not be represented as data.

Indeed, Badiou dedicates two chapters on what he terms “the void”, which is “an unrepresentable yet necessary figure,”¹¹ or “that undecidable of presentation which is its unrepresentable”¹² that inaugurates set theory as the empty set $\emptyset$. We are making a very important move here. The claim is that what was not presented at the outset, what was left out when we made the world presented into the formalism of set theory, haunts the representation and finally runs the representation into a wall of the undecidable. In set theory this is impossible to ignore, because all primitive objects of set theory like the natural numbers are constructed using the void: $0 = \emptyset$, $1 = \{\emptyset\}$, $2 = \{\emptyset, \{\emptyset\}\}$, $3 = \{\emptyset, \{\emptyset\}, \{\emptyset, \{\emptyset\}\}$, and so on. But in computability theory, we can safely ignore this. Computability theory does not deal with empty sets. Something is information, or it is not. Badiou treats the void with a kind of mystic reverence, attributing undecidability to the void rather than to the event. In doing so, Badiou is sometimes accused of being a Platonist, but worse, he equivocates on the meaning of the term “void”. He needs the void to be undecidable to say that the event’s undecidability is immanent. But the void is also just the empty set, which is obviously decidable. He tries to rescue this by distinguishing void as name, and void as what “in-exists”: the former is the empty set, and the

¹¹ Ibid., 59.

¹² Ibid., 58.

latter is what is undecidable. But we do not need to follow him there. We can make a more rigorous ontology by ignoring the void. For philosophical purposes, let us suspend the suspicion that by making the world into data, something is lost. To be sure, I do not think this is true at all. I think a lot is lost once we do this. Flesh seems to be the obvious thing we lose, and the sensation of touch, by which infinite subtleties of feeling are registered, seems lost. But the computational theory of mind insists that the mind is a program operating on data, so let us bite that bullet and see where it leads. Let us simply assume that the world can be made into data, and see what *still* follows.

Now, the second operation, the count-of-the-count, is the actual deployment of set theory on the presented multiplicity. In our computability theory substitution, this is the execution of programs on our data. The insight we need is this: there are undecidable propositions in Zermelo-Fraenkel set theory, just as there are uncomputable problems for Turing machines. An uncomputable language, such as **HALTS** decided by the halting problem, is something that is represented (as a language) but not presented (as no Turing machine decides the language) — what Badiou calls an *excrescence*. But Badiou says the excrescence only apparently appears to be represented, and always incoherently, by the fiat of the state. This can be seen in our substitution that there is no Turing machine that decides **HALTS**; no Turing machine can put into **HALTS** bitstrings of Turing machines that halt, and leave out bitstrings of those that do not halt. Now here our formalism fails us, and the failure is the point. We said that the excrescence is something that is represented but not presented. Still, something happens in the world, something that cannot fit our categories. This something appears as another presentation — the *event*.¹³

¹³ Ibid., 219.

There is a paradox here: we said that the excrescence is not presented, yet there is a presentation. The paradox is the point. For what we are doing here, our activity of philosophy, is representation, and it is precisely the failure of representation that brings about the event. This is the kernel of Badiou's thought we want to import: there is the event, which is not exactly a solution to an uncomputable problem but a way in which a thick being crosses the impasse between the presented and the represented. Later we will see that the thickness of this being is *Time*. In summary, the power set creates an impasse between the presented and the represented, which maps to the gap between the number of Turing machines (the presented, countable infinite) and the number of languages (the represented, uncountably infinite), which finds its expression in an uncomputable problem, which being deals with by forcing an event to happen.

Let us closely analyze the halting problem, the canonical uncomputable problem. The following is adapted from a popular tutorial.¹⁴ First, let me define some terms. A *problem* is a question on some input that can be answered with yes or no. A program is a *solution* to a problem if it correctly answers the question in a finite amount of time. A problem is *computable* if it has a solution. A problem is *uncomputable* if it does not have a solution. With that said, let's state the famous halting problem. The halting problem is a question: given a program, will this program ever stop running? If we had a solution to this problem, it would be very useful. For example, some programs that are used for finding a cure for cancer might take such a long time that we cannot simply keep running it, hoping it stops. If we had a solution to the halting problem, we could give this program for curing cancer to the solution and ask if it ever stops. If the solution says it doesn't stop, we could abandon the program and save ourselves a lot of time and money.

¹⁴ Craig S. Kaplan, "Understanding the Halting Problem".

So let's suppose that I had a genius inspiration one day and managed to write down the solution to the halting problem. The solution might look like this:

```
def would_it_stop(program, input):  
    if ( something terribly clever ):  
        return True  
    else:  
        return False
```

In our cancer example, we would run `would_it_stop` with the cancer-cure program, along with data about the cancer we are investigating. Now here is what I believe to be the central insight, and this is a point teachers of the halting problem sometimes underemphasize. The program is just data. Introductory computer science courses often spend significant time drilling this into their students' brains. A program seems like something that executes, something that is dynamic, and data seems like something that is static, something that is acted upon by the program. But this is not so. As a metaphor, imagine a recipe written down on a piece of paper. I can cook according to the recipe, which would be like executing the program. But if I felt sufficiently inspired, and had the devil in me to offend my guests, I could write down another recipe that uses the first recipe, the paper itself, as an ingredient. I could follow the new recipe to cook something like fried paper with soy sauce and peppers. While this is a contrived example, it illustrates the point that a program is data that may be executed on by other programs. And this happens all the time in computing, unlike cooking. So I could write the following program:

```
def stops_on_self(program):  
    return would_it_stop(program, program)
```

What does this program do? It asks if the given program stops when it takes itself as input.

Maybe the cancer-cure program needs to analyze itself to see if it stops. But now comes the kicker:

```
def impasse(program):  
    if stops_on_self(program):
```

```

        while True:
            continue # infinite loop
    else:
        return # halt

```

The program which I named `impasse` takes in a program, and runs forever if it stops on itself, and stops when it runs forever. But what happens when I run `impasse` on *itself*, that is, `impasse(impasse)`? Let's tease out precisely what the implications are:

1. If `impasse(impasse)` goes into an infinite loop, it is because `stops_on_self(impasse)` returned `True`. And `stops_on_self(impasse)` returns `True` only if `would_it_stop(impasse, impasse)` returns `True`. But this means `impasse` stops when fed itself as input: that is, `impasse(impasse)` must stop. Contradiction.
2. If `impasse(impasse)` stops, it is because `stops_on_self(impasse)` returned `False`. And `stops_on_self(impasse)` returns `False` only if `would_it_stop(impasse, impasse)` returns `False`. But this means `impasse` must enter an infinite loop when fed itself as input: that is, `impasse(impasse)` must enter an infinite loop. Contradiction.

So both cases lead to a contradiction. Neither case can exist. We must conclude that whatever terribly clever thing we thought we did was not possible to do. So there can be no solution to the halting problem. In other words, the halting problem is *uncomputable*.

Representation consists of propositions of Zermelo-Fraenkel set theory which try to account for the presented multiplicity. In our substitution, the Turing machine runs computations on data; and this is a rather literal description of the technological surveillance state. But the state

cannot account for them all, not for ethical, political, or psychological reasons, but for *mathematical* reasons: there are uncomputable problems. Uncomputable problems are not just curious oddities. They are the very possibility of events — events of history, events that propel history forward, without which nothing would change. Badiou understates the scandal of undecidability, perhaps in an attempt to temper the revolutionary fervor it makes possible: “the existence of a multiple on the edge of the void merely opens up the possibility of an event. It is always possible that no event actually occur.”¹⁵ But it is undeniable that undecidable problems make events possible.

The halting problem hinges on the identity of program and data: the crucial move in the proof of its uncomputability is when the program *impasse* takes itself in as data. A revolution is Badiou’s paradigmatic event whereby the state — the count-of-the-count, the execution of the program — becomes itself an object to be acted upon. In revolution, the sovereign, the executor of law, becomes executed in flesh.

For Badiou, the count-of-the-count is the operation of representation. In our computability theory substitution, this means that to represent something means to have a Turing machine for it, to be able to compute it. The event is a paradigmatic case of something that escapes representation, and therefore computation. But Kant denied that we had access to anything outside representation. Now if one thinks that computability equals representability, but also agrees with Kant that there is nothing that escapes representation, one must think the world is computable. Now, I do not think Kant thought this. He believed in God, after all, and God is not an object of representation. But there is a certain way the hangover of Kantian metaphysics

¹⁵ Ibid., 188.

combined with the computational theory of mind to give us the notion that representation is computation, there is nothing outside representation, and therefore the world is computable. I would be hard pressed to find a philosopher who articulates this position honestly, because it does not stand up to any serious scrutiny, but I do not think I am grasping at straws when I say it has become a kind of nihilistic folk wisdom. Often these believers burrow in online forums and discuss ideas like rationalism and effective altruism. This is the position of what I call the liberal technological metaphysician. I am not, here, interested in arguing that the liberal technological metaphysician has the wrong premises. I believe that thinking there is nothing outside representation is a coherent and rigorous position to take, and that there is good reason to believe representation is computation. What I want to do is bite these bullets and carry them out to their necessary conclusion. The necessary conclusion is the conclusion of uncomputability and thus of events. But the liberal technological metaphysician does already believe in events, or rather, *the* event. The liberal technological metaphysician believes in the Singularity, and some believe it has already arrived. The arrival of the large language model is, of course, what the Singularity is supposed to amount to. So let us examine this technological object in detail.

2. TO AFFIRM OR NOT TO AFFIRM?

Floating-point numbers are used in computers to represent numbers with a decimal point, such as 2.01, 3.7, or 90.000931. Large language models are a collection of a billion to a trillion floating-point numbers, depending on how “large” it is. But we cannot fully describe a large language model by describing its set of numbers, just as we cannot fully describe a dog by describing its set of atoms. For often what we mean by “the dog” is phenomenological: when we invoke the word, we hear it bark, wag its tail, and run after a ball. In a similar way, when we invoke the word “large language model”, we think of it using language, or simulating using language.

What is the distinction between using language, and simulating its usage? The engineer might want to say there is no distinction. I will argue that this is wrong, by the engineer’s own admission. To do so, let us interrogate what we mean by “simulation”. Two philosophers of simulation concern us: Baudrillard and Deleuze. Baudrillard is a French philosopher perhaps best known for his book *Simulacra and Simulation*. Deleuze is also a French philosopher whose book *Difference and Repetition* gives us the grounding for an alternate idea of simulation.

Baudrillard and Deleuze are philosophical enemies. It is safe to say they did not like each other. Sean McQueen writes in a comparative study:

Baudrillard intended to write *The Mirror of Desire*, ‘a true critique’ of Deleuze that he ultimately decided ‘wouldn’t be worth the effort’. Deleuze never wrote about Baudrillard, but Sylvère Lotringer – founder of Semiotext(e), and thus

publisher of many things Baudrillardian and Deleuzian – has used the word ‘despised’ to describe his view.¹⁶

For Baudrillard, simulation “is opposed to representation.”¹⁷ He says “all Western faith and good faith became engaged in this wager on representation: that a sign could refer to the depth of meaning, that a sign could be exchanged for meaning and that something could guarantee this exchange – God of course.”¹⁸ For Baudrillard, God Himself guarantees the good-faith relation between signs and meaning. When we use signs, such as words, we mean something, even something deep. Baudrillard’s critique of modernity comes in the form of a question: “what if God himself can be simulated, that is to say can be reduced to the signs that constitute faith?”¹⁹ Perhaps Baudrillard would say large language models are such simulations of God, God reduced to signage. Baudrillard continues:

Whereas representation attempts to absorb simulation by interpreting it as a false representation, simulation envelops the whole edifice of representation itself as a simulacrum. Such would be the successive phases of the image:

it is the reflection of a profound reality;

it masks and denatures a profound reality;

it masks the absence of a profound reality;

it has no relation to any reality whatsoever: it is its own pure simulacrum.

¹⁶ McQueen, *Deleuze and Baudrillard: From Cyberpunk to Biopunk*, 2.

¹⁷ Baudrillard, *Simulacra and Simulation*, 6.

¹⁸ Ibid., 5.

¹⁹ Ibid., 5.

In the first case, the image is a good appearance-representation is of the sacramental order. In the second, it is an evil appearance-it is of the order of maleficence. In the third, it plays at being an appearance-it is of the order of sorcery. In the fourth, it is no longer of the order of appearances, but of simulation.²⁰

For Baudrillard, the “good” representation is representation that reflects reality, the “bad” representations are the representations that misrepresent or mask reality, and simulation devours representation itself and leaves us with no trace of reality at all. Baudrillard is an influential philosopher, and his formulation might be said to form the spine of contemporary critique of large language models. We may map his levels of representation onto the contemporary discourse as such: “good” representations by large language models ground themselves on internet searches and citations to existing webpages; “bad” representations say the wrong thing, or hallucinate; and large language models as “pure simulacra” might be the critique people have in mind when they hear, in horror, that some are dating their large language models or treating them like friends, because if even friendship and love is untethered from all trace of reality, what are we left with? This is a fine critique, but I argue it is ultimately unsatisfactory. To get to a satisfactory critique of large language models, we must go through Deleuze.

Deleuze’s position is subtler and more radical. While Baudrillard’s most radical contribution might be the idea of pure simulacrum, simulacrum devoid of any reality whatsoever, he is a priori committed to the idea of a distinction between sign and reality, things and their representations. Deleuze denies any such distinction, and to do that, he goes for the very roots of

²⁰ Ibid., 6.

Western philosophy: Plato's theory of the forms. In the famous allegory of the cave, Plato says most people live as if they were inside a cave, staring at shadows reflected on the wall from a fire. But as one becomes enlightened, one leaves the cave to see the sun, the true form. Deleuze thinks this is all wrong. He wants to overthrow Platonism.

The whole of Platonism ... is dominated by the idea of drawing a distinction between "the thing itself" and the simulacra. Difference is not thought in itself but related to a ground, subordinated to the same and subject to mediation in mythic form. Overturning Platonism, then, means denying the primacy of original over copy, of model over image; glorifying the reign of simulacra and reflections.²¹

The given paragraph may be digestible as denying the distinction between mere appearances and forms, simulacra and the thing itself, copy and original, image and model. But perhaps the most difficult part is the second sentence: "Difference is not thought in itself but related to a ground, subordinated to the same and subject to mediation in mythic form." To understand this sentence, we have to understand what Deleuze means by difference. It is difficult to define Deleuze's difference, but let's begin by investigating what he does *not* mean by difference. Deleuze does *not* mean difference as in the sense we often use, attributable to Aristotle: when we say a horse and a human differ, we say this because both horses and humans are animals, but humans are rational whereas horses are non-rational. That is, that humans are rational is the difference. Aristotle calls "animal" the genus, and "human" the species: the genus is subdivided into species. Animals are subdivided into species, of which humans are one. Some implications fall out of this view:

²¹ Deleuze, *Difference and Repetition*, 83.

It should be clear that a difference cannot be the same type of thing as that which it differentiates. We can show this by taking as an example the case of living bodies. If the difference between living bodies was itself a living body, then we would be caught in an infinite regress, as in order for this living body to function as a difference, we would need to differentiate it from other living bodies. Thus, we would require a further difference, which would in turn need to be differentiated and so on to infinity. What thus differentiates living bodies, the difference sensible/non-sensible, must itself not be a living body. This, however, presents a serious problem when we apply this criterion to the case of being, as it now means that what differentiates beings into different species cannot itself be a type of being. Therefore, if being is a genus, then difference itself cannot be a being. As Deleuze puts it, ‘Being itself is not a genus . . . because differences *are*’.²²

What we are concerned with here is the highest category that is subdivided into species. It might be plausible that “being” is the highest category: after all, all things *are*. But let’s say we try to divide being into species. What kind of thing is the difference that subdivides being into species? For “animal” and “human”, the difference was the property “rational”. This example works because “rational” is not a type of thing that “animal” or “human” is. Suppose for reductio that being is a genus. Being subdivides into species, each of which is some being. But the difference between two beings must itself also be a being. Otherwise, we would be forced to say the difference is not a being, which is just a way of saying it does not exist, and that would render

²² Somers-Hall, *Deleuze’s Difference and Repetition*, 27.

our division moot. But if the difference is itself a being, it is the same type of thing which it differentiates. The quote above has shown that this cannot be tenable: if what differentiates difference from other difference is a kind of difference, we have an infinite regress. Therefore, being cannot be a genus. But if being is not a genus, we have a problem: what is the highest category which is subdivided into species, if not a being? If Aristotle wants to say genres exist, and differences exist, he is forced to say that there are two different senses in which we speak of being: genres would exist in a different sense from which differences exist. That there are two senses in which being exists is called the equivocity of being. The univocity of being, on the other hand, says there is only one sense in which being exists: when we say God exists, we say this in the same sense in which we say an apple exists. Aristotle's equivocity of being is taken up by Aquinas, who says God exists in a different sense from how an apple exists. But now there is a problem: just what do we mean when we say God exists? If God exists in a different way from us, how can we ever know him? Aquinas's answer is analogy. God has caused humans to exist, and an effect is like the cause, so humans are *like* God. That is, there is an analogy from God to humans. Thus Aquinas took the path that preserves the equivocity of being but lets us access God via analogy. As Deleuze says, "those who are between the two [univocity and equivocity of being] are always those who establish what we call orthodoxy", and Aquinas is the one to establish orthodoxy: "historically he won".²³ But Deleuze isn't interested in that. Instead, Deleuze follows Duns Scotus, Spinoza, and Nietzsche, who each believed in the univocity of being. For Duns Scotus, God exists in the same manner an apple exists. But this does not mean God and an apple are the same. To account for the difference, Duns Scotus develops the idea of

²³ Deleuze, "Vincennes Lecture", January 14, 1974.

degree, or intensity. God exists in an unlimited degree; an apple exists in a limited degree. With this idea, Duns Scotus was able to preserve the univocity of being, but at a cost: since God exists in an infinite degree while the rest of us exist in a finite degree, this is a difference in kind and we can only hope to know God in a *logical* way. That is, while our existence and God's existence are logically the same existence, the existences are not really the same, and while we can think of his existence, we cannot really encounter his existence. As Deleuze sees it, Spinoza radicalizes this thought. Spinoza imbues God all around us: *Deus sive Natura*, God, or Nature, is substance, and everything is substance. Everything is God. Spinoza makes univocal being, the only kind of being there is, "an object of pure affirmation".²⁴ We are finite modes of God, and as finite modes, we have different degrees of power: the same idea of degree that Duns Scotus developed. Still, Deleuze is not satisfied. "Nevertheless, there still remains a difference between substance and the modes."²⁵ For Spinoza, modes are still dependent on substance. But Deleuze wants substance to "be said *of* the modes and only *of* the modes."²⁶ What does that mean? Here Deleuze turns from the scholasticism of Duns Scotus and the geometrical method of Spinoza to the theater of Nietzsche. While Duns Scotus "thought" univocal being and Spinoza "affirmed" it, Nietzsche *realizes* it in eternal return.

Eternal return cannot mean the return of the Identical because it presupposes a world (that of the will to power) in which all previous identities have been abolished and dissolved. Returning is being, but only the being of becoming. The eternal return does not bring back "the same", but returning constitutes the only

²⁴ Deleuze, *Difference and Repetition*, 51.

²⁵ *Difference and Repetition*, 52.

²⁶ *Ibid.*, 52.

Same of that which becomes. Returning is the becoming-identical of becoming itself. Returning is thus the only identity, but identity as a secondary power, the identity of difference, the identical which belongs to the different, or turns around the different. Such an identity, produced by difference, is determined as “repetition”. Repetition in the eternal return, therefore, consists in conceiving the same on the basis of the different. ... Only the extreme forms return – those which, large or small, are deployed within the limit and extend to the limit of their power, transforming themselves and changing one into another. Only the extreme, the excessive, returns; that which passes into something else and becomes identical. ... Being is said in a single and same sense, but this sense is that of eternal return as the return or repetition of that of which it is said.”²⁷

This is a dense paragraph. What does Deleuze mean? Recall the discussion on intensity or degree. For Duns Scotus, God had an infinite degree of existence, while God’s creations had finite degrees of existence. Now for Deleuze, once this degree is “deployed within the limit and extend to the limit of their power”, something happens: these “extreme forms” now transform themselves and change into another. It is this *process of transformation*, this “being of becoming”, that repeats in eternal return. Think of a poet writing a poem. As the poet struggles to write, she deploys her power to the limit, and when something in her is unlocked in this struggle, only then is the resulting piece worthy of a poem. If the poet is not transformed by the writing of the poem, the resulting poem is dull and uninspired. Alternatively, think of the reader: the reader who starts reading a poem should have arrived at a different place by the end of the poem, if the

²⁷ Ibid., 52-53.

poem has succeeded. The poem is a record of the poet's transformation and an incantation that transforms its readers. The being of the poem exists as this becoming. This being is repeated in Nietzsche's eternal return.

Let's take a closer look at Nietzsche. In *The Gay Science*, Nietzsche formulates the eternal return:

What if some day or night a demon were to steal after you into your loneliest loneliness and say to you: 'This life as you now live it and have lived it, you will have to live once more and innumerable times more' . . . Would you not throw yourself down and gnash your teeth and curse the demon who spoke thus? Or have you once experienced a tremendous moment when you would have answered him: 'You are a god and never have I heard anything more divine.'²⁸

What does Nietzsche mean? With the poet example, the answer might be simple: the poet's "tremendous moment" when she would have answered the demon to let her live the moment again would be the moment she was inspired to write the poem. There is a formal structure here, but the intuition is easy to grasp: she liked that moment and would like to relive it. But we are not all poets. Let's go with a more prosaic example. Say you are at a restaurant choosing a meal. Let's say you are not particularly impressed with the menu. You choose the burger, but you very well may have chosen the pizza. Can this choice pass the test of eternal return? If a demon were to cast you innumerable times into this moment, and you watched yourself choose the burger innumerable times, would you curse the demon who cast you in this condition, or would you praise the demon as a god? Perhaps you just really would not care either way. In this case,

²⁸ Nietzsche, *The Gay Science*, 341.

perhaps the issue goes deeper: you cannot affirm the fact that you came into the restaurant at all. If the demon rewound time to when you chose to come into the restaurant and you watched yourself come into the restaurant innumerable times, would you curse or praise the demon? If you still do not care, perhaps the issue goes still deeper. The issue would go as far back as the first moment you could eternally affirm. Nietzsche's eternal return is a severe test. You must affirm, not just one moment, but every moment of your life. This seems like an impossible task: everyone has regrets. But Nietzsche's demand is subtler, and concerns the nature of what a moment is.

Suppose that we said yes to a single moment, then we have not only said yes to ourselves, but to the whole of existence. For nothing stands alone, either in ourselves or in things; and if our soul did but once vibrate and resound with a chord of happiness, then all of eternity was necessary to bring forth this one occurrence—and in this single moment when we said yes, all of eternity was embraced, redeemed, justified and affirmed.²⁹

Nietzsche is saying here that to say yes to a single moment just is to say yes to the whole of existence. No moment stands alone. Every moment is connected to every other in a coherent whole. Every decision you made in your life brought you to this moment in time. When you affirm this moment, you thereby affirm every moment of your life. You pass the test of eternal return. For those who cannot pass the test of eternal return, Deleuze reserves harsh words: "They will be aware of themselves and know themselves for what they are: epiphenomena."³⁰ When

²⁹ Nietzsche, *The Will to Power*, 1032.

³⁰ *Difference and Repetition*, 69.

you cannot affirm the choice between burger and pizza, you are epiphenomena. To affirm that choice, you must affirm the entirety of existence.

I deliberately chose an asinine example of ordering a burger to illustrate a point. For it seems ridiculous to speak of affirming the choice between burger and pizza as affirming all of eternity, yet the model idea of a choice liberal subjects have is that of choosing a meal at a restaurant. Let's think through what exactly this would mean. To affirm the choice of the burger, you would have to affirm the labor of the person who made the burger. You would have to affirm the server bringing the burger to you. You would have to affirm the investments made by the owner of the restaurant. You would have to affirm the rent, the refrigerator, the electricity bill, the lettuce farmer, the tomato picker, the cow's life, the cow's slaughter, the egg from the caged chicken to produce mayonnaise. You would have to affirm the choice you made to come to the restaurant during lunch break, rather than trying the new ramen restaurant. You would have to affirm your salary, your job, your boss, your family. But you may ask: doesn't this just mean you become a liberal who is basically content with how things are?

There is a problem here. It seems that to pass the test of eternal return, one must affirm every moment of one's life. But it seems that only a liberal could stomach doing that. Surely the critical theorists know better than to affirm every moment. There are so many atrocities of history that cannot, should not, be affirmed. Accordingly, Joanne S. Steele, a political theorist, said:

Faced with the last four hundred odd years of human history liberals look back and say, not necessarily that it was all worth it, but rather that it all came together in a way that is basically logical. Every other political tendency is grounded in a kind of basal

antinomianism. Communists, anarchists, and the others... all of them look at the modern world and see a crime.

The problem we are facing runs rather deep. Deleuze says “in its essence, difference is the object of affirmation or affirmation itself.”³¹ One might take this to mean that all differences must be unconditionally affirmed. Contra Deleuze, my ethical wager is that there is difference that cannot be affirmed. This is what I will call unaffirmable difference. Unaffirmable difference is necessarily a *political* category.

³¹ *Difference and Repetition*

3. DEALING WITH KANT

In the “paralogisms of pure reason”, a chapter in *The Critique of Pure Reason*, Kant says “I, as a thinking being, am the absolute subject of all my possible judgments, and this representation of Myself cannot be used as the predicate of any other thing.”³² Kant says the “I” can only be a subject and cannot be used as a predicate. But this is precisely what we are demanding: to use the “I”, the “representation of Myself”, as a predicate of a sentence, an object of representation. For example: “this is me.” This sounds like an affirmation: when we take ourselves as a predicate of a thought, we abolish our representation of ourselves, and we affirm ourselves. We “feel like” ourselves; we feel confident. Nor is this a feeling reducible to psychology, for the feeling comes precisely from the abolition of the subject.

Kant does not think this abolition is possible. To be sure, he thinks the I can represent itself, but not fully.

Consciousness of itself (apperception) is the simple representation of the I, and if all of the manifold in the subject were given self-actively through that alone, then the inner intuition would be intellectual. In human beings this consciousness requires inner perception of the manifold that is antecedently given in the subject, and the manner in which this is given to the mind without spontaneity must be called sensibility on account of this difference. If the faculty for becoming conscious of oneself is to seek out (apprehend) that which lies in the mind, it must affect the latter [the mind]; and it can only produce an intuition of itself in such a way, whose form, however, which antecedently grounds it in the mind, determines

³² Kant, *The Critique of Pure Reason*, A348. This quotation is part of a statement Kant seeks to criticize; but what he seeks to criticize is the conclusion, not the premises, and this premise is something Kant does believe in.

the way in which the manifold is together in the mind in the representation of time; there it then intuits itself not as it would immediately self-actively represent itself, but in accordance with the way in which it is affected from within, consequently as it appears to itself, not as it is.³³

This is a dense passage, but the gist of the argument is that when we are conscious of ourselves, this consciousness cannot be of “all of the manifold in the subject”. That is, we cannot be fully conscious of ourselves. Kant’s argument is that the “manifold” in the subject, or the multitude of sense data in the subject, is given before the subject manifests, so the subject has to synthesize them to intuit itself. But the multitude of sense data are synthesized in time. The self, as it appears, necessarily appears as it is in time, because the self has the multitude of sense data in it as given, and the multitude of sense data are synthesized in time. For Kant, the thing-in-itself is outside time. So the self as intuited through our synthesis, which is in time, is not the thing-in-itself. *If* we could be fully conscious of ourselves, that is, if we had intellectual intuition, we would have to be outside time. It seems that an argument for intellectual intuition would require that we be outside of time. I will argue that this is precisely what it means to abolish the subject and free us from the concept of time as erected by Kant. Kant’s concept of time is successive: “different times are not simultaneous, but successive.”³⁴ But a moment in this kind of time cannot be a moment we affirm in eternal return. To affirm a moment in eternal return is to affirm the entire history of humanity. “The here-and-now, which as the model of messianic time summarizes the entire history of humanity into a monstrous abbreviation”³⁵ is *time as*

³³ Ibid., B69.

³⁴ Ibid., B47.

³⁵ Benjamin, “Theses on the Philosophy of History,” 18.

simultaneous. When “the inconceivable, innumerable eons can be ordered to equally enter a single thought”, the entire history of humanity are *in* the thought simultaneously. To affirm the entire history of humanity is not to have memorized all of the history books representationally and to remember all of them in your mind at once. It is a qualitatively different thing: it is to feel the here-and-now in your bones.

In the following pages, Kant defines his infamous 12 categories of cognition. What those categories are does not concern us here. We should simply note that they are derived from what the logicians of the time were thinking of when they were classifying judgments. Here it is possible to do a Badiouan critique of Kant. In many ways, what Badiou is doing is similar to what Kant is doing. Kant sets up the categories as what synthesizes sense data into representations; Badiou deploys set theory to bring the presented to the level of representations. What Badiou has that Kant did not have was the mathematical discovery of Gödel’s incompleteness theorems, a parallel of which in computability theory is the uncomputability of the halting problem. Notice that in the halting problem what happened is the program taking itself as a predicate. If Kant’s “I” can be thought of as a program, this operation of taking itself as a predicate is precisely what Kant could not allow. For Kant, such an operation is reserved for intellectual intuition, which he rules out as impossible given the successive nature of time.

Kant states that time is successive and not simultaneous. This is not so much an argument as it is a definition. And while this statement seems so intuitive as to seem self-evident, we should examine where his prejudices came from. I believe it came from the tradition of logicians Kant was informed by. Formal logic is supposed to be timeless. That is, it tries to abolish time. More precisely, it tries to bring what is in time into space: a statement in formal logic with a

universal quantifier, for example, compresses all statements that could have been written over that quantified variable into one statement in space. In this way, it saves time, even an infinite amount of time, if the universal quantifier quantifies over an infinite domain. In this way, it seeks to give an account of time in space and space only. When Kant says time is successive, he means it can be reduced to space, on a line, as it were. Kant is not so much concerned with the phenomenon of historical events happening in succession, one building upon another, as much as he is about locating his subject, and the laws of its operations, in a timeless form. His subject operates according to timeless laws. Time, for Kant, ought not be a domain of historical events and ruptures but an eternal calm, a perpetual peace. And he almost succeeded: at the turn of the millennium, some intellectuals truly believed that history had ended in victory of the liberal international order, the universal liberal subject architected by Kant. But undecidability is the discovery that time is irreducible to space.

Let us grant Kant everything he wants, with one exception. Enter the Badiouan critique: replace the categories with set theory. This is surely a valid move for us, since Kant's categories were derived from the logicians of his time, after all, and logicians have made quite an advance since then. As we have examined in the previous section on Badiou, this picture gives us the possibility of an event. Crucially, it gives us the possibility of the subject's abolition as an event. The subject, locked in phenomena and unable to access noumena, is definitionally abolished when it encounters noumena with intellectual intuition. The subject's abolition is possible because the subject can see itself as a predicate, not simply but in its full glory. When the subject sees itself, it sees a manifold, a given. As activity, a subject is the transcendental unity of apperception, but as it appears to the activity, it is "all of the manifold in the subject". Kant

would say that at least part of this manifold must be synthesized in successive time, so the subject is always in successive time. For all acts of synthesis happen in successive time. But we do not need a synthesis. In fact, what we have is precisely the foreclosure of synthesis. If a synthesis of the given is an application of the categories on the manifold, a synthesis is like a proposition in set theory of so many predicates. It is formally equivalent to a program operating on data. But what we have here is precisely a proof of the *absence* of this proposition. In other words, there is *no* program that is a solution to the halting problem. This absence opens up a gap between subject and its acts of syntheses. There is at least one manifold, such as itself, which the subject cannot synthesize. Since it is a manifold, we access it through some kind of intuition. For Kant, this intuition cannot but be sensible intuition, since intellectual intuition is ruled out. But this manifold is not just any manifold: it is a manifold whose existence we have deduced self-actively, through the spontaneous faculty of understanding. What sort of manifold is this, an object of intuition whose existence is secured by the understanding? It is *noumena*.

It seems that Kant can take these blows. In the second edition's (B edition) treatment on the paralogisms, Kant discusses the proposition "I think" and says "in this proposition there is already no longer merely spontaneity of thinking, but also receptivity of intuition, i.e. the thinking of my self applied to the empirical intuition of the very same subject."³⁶ Here Kant is saying that the subject "I" is also grasped as an object by the "receptivity of intuition", and the spontaneity of thinking embodied by the proposition "I think" already includes the "I" grasped as object. Thinking undecidability as merely equivalent with unknowability, we might be stuck with the Kantian picture that noumena is unknowable. What we need to go beyond Kant is the

³⁶ *The Critique of Pure Reason*, B430.

Badiouan insight that events are formally undecidable. What we are concerned with is the *abolition of the subject “I” as event*, not the subject “I” grasped as object. The halting problem is undecidable just as events are undecidable. The “object” or “manifold” we are concerned with is the event. Strictly speaking, it is not a object at all, since objects are given whereas events are generated. Intellectual intuition is our faculty to generate events.

To be clear, this does not mean understanding the halting problem magically gives us intellectual intuition. Rather, the argument secures for us the existence of noumena (which Kant allows) *and* our possibility of grasping/generating it (which Kant does not allow). This deduction of the existence of the possibility of events does not generate the event. It simply guarantees to us that the event would exist in the formal slot that Kant would put objects in, and whatever is in this formal slot is supposed to be graspable by sensible intuition or generated by intellectual intuition. For Kant, noumena is “a concept without an object,”³⁷ which is why we can never grasp it. But we have just shown that it is a concept (deduced through formal correspondence with the halting problem) that has something (the event) at the formal slot of where an object should be. The moment the subject grasps itself with intellectual intuition is the moment it abolishes itself. *This abolishing is an event*. This activity of intellectual intuition is an *event*. Nor is this abolishing a Hegelian *aufheben*, nor intellectual intuition Absolute Knowing. For us, intellectual intuition is possible only after the subject has been abolished or as it becomes abolished, whereas the Hegelian dialectic is an inexorable march towards the Absolute Subject. Intellectual intuition is not given through the understanding of a deduction, like Absolute Knowing would be given through the understanding of the Hegelian dialectic. The understanding

³⁷ Ibid., B347.

is just one way we can secure for ourselves the *possibility* of intellectual intuition. (For an exposition of how exactly intellectual intuition is gained from this possibility, see the next two sections.)

I do not want to do any hand-waving here. The formal argument must be precise. Here is the exact role the halting problem plays in this argument, and I will use technical language. To start, here are the python programs we examined earlier for you to reference as you consider the argument:

```
def would_it_stop(program, input):
    if ( something terribly clever ):
        return True
    else:
        return False

def stops_on_self(program):
    return would_it_stop(program, program)

def impasse(program):
    if stops_on_self(program):
        while True:
            continue # infinite loop
    else:
        return # halt
```

We are not merely concerned with the fact that what is undecidable is unknowable. That is just the Kantian move, showing that noumena is unknowable. What we are concerned with is the germ of what makes the halting problem work: the fact that the Turing machine, *impasse*, took itself as input, *impasse*. What happens when a subject that was operating as a Turing machine, not analogically but formally, encounters itself as input? Whenever it does this, any move that that is formally equivalent to the halting problem is undecidable. More precisely, if a subject is asked to execute the terribly clever thing in *would_it_stop*, it cannot do so, at least not as a Kantian subject. That is, this terribly clever thing cannot be a synthesis of sensible intuitions in Kant's linear time. We could say one of two things at this point. Number one: since whatever it

thinks is terribly clever enough that it lets it enact this move logically cannot exist, this move is outlawed. This is formally equivalent to Kant's moral law. Number two: when it runs the terribly clever thing, the Turing machine *becomes something undecidable*. There are, in turn, two ways of interpreting what this means. Let's examine them one by one.

1. It becomes a Turing machine with a halting problem oracle.

If we say the Turing machine becomes a Turing machine with a halting problem oracle, we are saying it can still be formulated as a Turing machine with transition functions, a memory tape, an alphabet and so on, just augmented with a specific procedure that lets it solve any problem that reduces to the halting problem. Since the terribly clever thing reduces to the halting problem, we can solve it using this Turing machine with the halting oracle. But what happens when we ask if this Turing machine with the halting oracle halts? We can construct programs formally equivalent with the three above, and the Turing machine with the halting oracle is undecidable in the second Turing degree. Each degree will require a higher degree oracle. The first oracle will be a halting problem oracle; the second oracle will be an oracle for solving Turing machines with a halting oracle; and so on. This is loosely analogous to Russell's theory of types and the Hegelian dialectic. In this picture, the world is a collection of Turing machines with zero, lesser or more powerful halting oracles. Some liberal technological metaphysicians, when pressed to the limit of thought, believe this picture of the world. A Turing machine with a higher-degree halting oracle can compute any Turing machine with a lower-degree halting oracle. In our Kantian formalism, a subject is a Turing machine. A Turing machine with higher Turing degree formally corresponds to a subject that can completely predict every synthesis of sensible intuitions of another subject that corresponds to a Turing machine with lower Turing degree. This

picture is a picture where subjects with more knowledge can formally predict other subjects with perfect knowledge. Let us call this notion *representational dominance*. A subject is representationally dominant over another subject if, when expressed in Turing formalism, it has a higher Turing degree than another subject. If events happen in this picture of the world, only the group of subjects that is representationally dominant over all other groups can cause events. The subjects in the other groups might think they can cause events, but these events are representable by a subject who is more representationally dominant, and are thus not events in the true sense. A representationally dominant subject can predict that such an event can happen, after all. The Hegelian cashout: there is exactly one subject who can cause events, and his name is the World-Spirit. This picture warrants closer analysis, but not for the reason Hegel thinks. What Hegel does is collapse the hierarchy of Turing degrees into the lowest degree Turing machine. In doing so, he attempts to compute, comprehend in rational representation, that which is uncomputable. This is mathematically impossible. We will return to this picture, however, when we discuss the metaphysics of consent and transfinite iteration.

2. It ceases to be a Turing machine at all, oracle or no.

The other possibility, that it ceases to be a Turing machine at all, is the possibility that it becomes an event. The terribly clever thing we prohibited should be prohibited if it is something subsumed under representation. But if it is a being of becoming that passes the test of eternal return, it bursts forth as event. Turing machines cannot represent events, and there is no terribly clever line of code that can represent an event, since events are just what escape representation. But the halting problem formalism gives us a very precise way to talk about what exact formal slot an event slots into, and lays bare what it means to think that events can be caused in a

programmatic, determined way: it is to slot events into that line of code in `would_it_stop` that goes “something terribly clever”. Here the liberal technological metaphysician must make a choice: to believe events can be slotted into “something terribly clever”, which is to believe that events in the thick, undecidable, eternal-return sense do not exist, or to think with the rest of us that events do exist.

Note that understanding that intellectual intuition and events have a right to exist does not mean you attain intellectual intuition. It is possible to understand that events can exist and can be generated with intellectual intuition, yet never attain intellectual intuition. If you are a Kantian subject reading this argument, the argument, however successful, will not abolish you as subject. I think the argument is successful, but arguments just aren’t the kind of things that cause events. As Badiou says, philosophy is not a kind of event. Love, on the other hand, is one kind of event that abolishes the subject. The abolishing of the subject is an activity of intellectual intuition; it is the first event. Each activity of intellectual intuition afterwards is also an event. What does it mean for the activity of intellectual intuition to be an event? Mou Zongsan thinks sages or buddhas have intellectual intuition. He puts it this way:

[I]n the creative feeling of enlightened sensing, moral knowing presents itself as one with all things, without subject-object relations or a sense of an object, and to be aroused by and respond to something is to create it. Our cognitive minds (renzhi xin 認知心) can only understand objects, not create them, for an object is a thing which we confront. But apart from “object” we also have the word “e-ject,” meaning a thing with which moral knowing has an affective relationship. This “e-ject” can be translated as “a self-so thing” (zizai wu 自在物). (Buddhists

say that a buddha, a “thus-come one” [rulai 如來] rides upon thusness and coming and going and thus comes and goes self-so [zizai 自在]). For Wang Yangming, a thing in the sense of that word that has to do with the creative feeling of enlightened sensing is a “self-so thing,” not an object. Following this distinction, our first question must be, are such things phenomena or are they noumena, or things-in-themselves? They must necessarily be things-in-themselves, not phenomena.³⁸

Kant stipulates the noumena have no object. I have said they do, at least formally: the subject itself (data, not program) is a manifold and thus has the same formal relationship as an object to the subject. I have said that the event is what fits this formal slot of the object. Mou, on the other hand, grants Kant that noumena does not have an object, and rather names what corresponds to it formally an “e-ject” or “self-so thing”. This is not a disagreement; it is just an incongruence in the vocabulary used. Mou points out that this “e-ject” is *created* as the enlightened one senses. In the same way, in my vocabulary, intellectual intuition generates events. Either way, this enlightened sensing, this activity of intellectual intuition, is not a passive receptivity but a generation of self-so things, the causing of events.

I agree with Mou that intellectual intuition exists and is generative. But I do not agree that only sages and buddhas have it. I think anyone who can consent has a kind of intellectual intuition. I think consent generates events. If intellectual intuition is a formulation of event-generation as knowledge, consent is its formulation as non-psychological and even messianic affect. When we consent with each other, we have a kind of enlightened sensing of each other

³⁸ Mou, *Late Works of Mou Zongsan*, 140-141.

that is generative. Love is one of Badiou's four events, and there can be no love without consent. If the abolishing of the subject is a condition of possibility of falling in love, this is because the subject cannot have intellectual intuition, consent is a kind of intellectual intuition, and love requires consent.

I don't know if Kant ever fell in love. But an interesting thing happens when Kant is forced to reckon with the real world, in his formulation of practical reason. Practical reason, or an ethics, that falls out of our exposition of the formal structure of the halting problem is that we must strive to cause events. Kant's famous categorical imperative in *The Critique of Practical Reason* does not quite say this, but it has a kind of respect for the unknowable, the undecidable. Kant's formalisms and ours largely agree, diverging only in displacing the categories with set theory and at the last moment when we ask whether we ought to simply respect noumena/events as unknowable or seek to cause events. Perhaps because of this, Kant's theory fits with our conclusion better than other ethical theories, such as utilitarianism or virtue ethics. The first formulation of the categorical imperative goes: "act only in accordance with that maxim through which you can at the same time will that it become a universal law". This formulation has a natural interpretation involving the halting problem. There are some ways to "solve" the halting problem by cheating. For example, you might choose the following "maxim": say the program halts if it starts with a 1, and does not halt if it starts with a 0. But this "maxim" cannot be a universal law. It might work for some programs. But it will not for others. The chances the "maxim" succeeds is exactly 50%, which means the program is useless. It is incoherent to say this program is a universal law. We cannot will our maxim to be a universal law. This is analogous to a situation where you "synthesize" some noumenon by throwing a dice and doing

what the dice says. Thus Caesar crossed the Rubicon, but his victory was the result of the undetermined irreducibility of history, not any sort of law. Kant also has an alternative formulation of the categorical imperative: “Act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means to an end, but always at the same time as an end.” Here we can interpret this as saying that instrumentalizing a person is like treating them as a specific program, a specific Turing machine. I am reminded of a Korean child prodigy who could solve extremely complicated integrals at the age of 9, and was recruited by NASA to help them solve integrals. He recounts the experience as horrid; the researchers used him like an integral-solving machine, not as an end in itself. For the prodigy was a person, and people are not specific Turing machines or mere tools; a person can be uncomputable, cause events. John von Neumann once said “Anyone who considers arithmetic methods of producing random digits is, of course, in a state of sin.” Arithmetic methods are computable, whereas producing (non-pseudo) random digits is uncomputable. My theory aligns with von Neumann’s: considering the uncomputable (a person) as merely computable (a mere tool) is a sin.

My verdict is that we should not throw Kant and liberalism away wholesale. Kant did see a ray of divine light in the starry heavens; it terrified him. Fred Moten, a contemporary black studies scholar, theorizes a radicalized Kant, a “black Kant”: that there is “a kind of black genius in Kant that must be conserved—an incantatory, ante-Kantian frenzy, a tumultuous derangement.”³⁹ This is not to say that we should ground our ethics on personal dignity and respect for the person, which is so often how Kantian ethics is cashed out. Rather, we must let loose the “tumultuous derangement.” What does that mean? We could do worse than start with

³⁹ Moten, *Stolen Life*, 32.

examining gender and the stultifying social scripts it comes with. Of the racially oppressed man, or what Fanon calls the damned of the earth, Moten says “if there is something lost it is oneself, which is to say one’s standing, which is to say one’s patrimony, which is to say one’s delusionally self-made single being. Having lost one’s father, one also mourns the loss of one’s heteronormatively derived dignity. That loss often takes the representational form of a mother who just won’t do or just won’t do right.”⁴⁰ To radicalize Kant does not mean to say that we should respect personal dignity in a more extreme way. Such respect often comes with being on guard lest one’s dignity slip, and mourning its loss once it does so inevitably. Radicalizing Kant means pushing towards the seams of the subject the moment it catches a glimpse of noumena, taking the terror of this glimpse not as a moral law to be respected but as a nauseating moment of disorientation and even dysphoria. If there is an injunction to be followed here, it is not respect for personal dignity but a Nietzschean guard against resentment: do not compute a person, do not subordinate them under representation, for a person has difference, is difference itself, and difference cannot be subordinated under representation. To compute a person, to subordinate difference under representation, is to be swallowed by the representation, for the laws of computation say the prey swallows the predator. “For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again”⁴¹ is a *formal* statement of ontology: when you measure with representation, you make what you measure into a computable number, but this same measure is applied back to you as what you thought you measured could not be measured. In seeking to represent the unrepresentable, you become

⁴⁰ Moten, *The Universal Machine*, 243.

⁴¹ Matthew 7:2

representable. To try to compute what is uncomputable is to become computable. The Hegelian dialectic, which seeks to put all difference under its infinite representation, thus seeks to compute (subsume under representation) the uncomputable (difference). If the Kantian subject still qualifies as phenomena, the Hegelian subject is pure epiphenomena. The distinction between Kant and Hegel is that Kant respects the event as unknowable, while Hegel subsumes the event, deludedly, under representation. Kant is not swallowed by the prey, because he does not try to swallow it, while Hegel sits dissolving in stomach acid. Still, epiphenomena is harmless. There is one more step towards becoming fascist: epiphenomena becomes fascist when it is convinced the rest of the world is epiphenomena. Hegel does not do that, because he thinks the Absolute Subject *is* the world comprehended in thought. The Absolute Subject does not distinguish himself from the rest of the world.

To put our ethical principle in Badiouan terms, a person can cause events (such as abolishing their subjecthood), and events are ruptures in representation, therefore people cannot be subordinated under representation. To be sure, I am not talking about remembering another person's favorite food or flowers to gift them it as representing that person. In my view, that is not representing the person but a kind of sensing-together, a kind of consent. Not representing a person, not computing a person, does not constitute or lead to consent, but is the condition of possibility of consent. We will return to consent when we discuss its metaphysics. Consent deserves a metaphysics beyond the liberal idea of a simple "did you say yes or no"; in fact, any metaphysics must be grounded on consent to have ethical force. The trouble with Kant that is urgent today is in his view that the subject is exhausted by representation, and representation is

enough for experience. Such a subject cannot consent in a meaningful way, in the same sense a large language model cannot consent in a meaningful way.

4. A PARADOXICAL TANDEM

Our procedure so far has largely been negative: focusing on *uncomputability*, we destroyed systems that would represent everything. But what remains after representation? I have so far asserted that we can get to intellectual intuition only after destroying representation, but have not given a positive account of how to get to intellectual intuition. Here I want to give such an account. Our strategy will be to work towards a reconciliation of Deleuze and Badiou, which will lead to our positive account and its formalization.

Let's recap what the two thinkers have said to survey how we may reconcile them. Badiou's void is the inertia of pure multiplicity before it is a count-as-one, before it is presented for the representational regime of set theory. What is repeated in Deleuze's repetition that includes difference is the poem, the being of becoming, being that passes the test of eternal return. We might say: the event. What is repeated in eternal return is not the Same but the uncomputable event. This is not to say the event that happened at time t keeps happening at time $t + 1, t + 2, t + 3 \dots$ but that the time t becomes a singular moment in time, messianic time, time that repeats and unifies all time. This is time outside of Kantian linear time, Kantian synthesis.

Now, I will lay out the conclusions and justify them after the fact. The void is really (but not formally)⁴² difference; the being of the event is the being of repetition. Again, Deleuze says: "Returning is the becoming-identical of becoming itself. Returning is thus the only identity, but identity as a secondary power; the identity of difference, the identical which belongs to the different, or turns around the different. Such an identity, produced by difference, is determined as

⁴² A brief note: Aristotle distinguishes potentiality with actuality, and Deleuze virtuality with actuality. I distinguish the formal with the real. This is a paraphrase of Confucian metaphysics that uses *yi* and *qi* as organizing concepts. *Yi* is "formal" and *qi* is "real" in my mind. For an extended discussion of *yi* and *qi*, see the section on the Joseon Dynasty.

“repetition”.”⁴³ The being of repetition, or this identity, is produced by difference. Difference produces the *being* of repetition. In a similar but not formally identical way, the void is the condition of possibility of the event. Note how the two are not parallel in structure. The being of repetition is *produced by* difference. The void is the *condition of possibility of* the event. The void is “that undecidable of presentation which is its unrepresentable.”⁴⁴ The void is unrepresentable: it is uncomputable. It is “an unrepresentable yet necessary figure which designates the gap between the result-one of presentation and that ‘on the basis of which’ there is presentation; that is, the non-term of any totality, the non-one of any count-as-one, the nothing particular to the situation, the unlocalizable void point in which it is manifest both that the situation is sutured to being and that the *that-which*-presents-itself wanders in the presentation in the form of a subtraction from the count.”⁴⁵ The void escapes totalization, yet naming the void is necessary to inaugurate set theory. The void is characterized as the empty set, which is then used to define numbers. I have said both that the event is uncomputable and that the void is uncomputable. This is not to say they are the same. Uncomputability is a property; not everything that is uncomputable is equal. The void is the condition of possibility of the event. Difference is a condition of possibility of the event.

Badiou and Deleuze are both critical of totalizing representation. For Badiou, the void and the event are what necessarily escape representation; for Deleuze, it is difference that escapes, is prior to, representation. Still, the two philosophers are frequently juxtaposed as having fundamentally irreconcilable ideas. In *Deleuze: The Clamor of Being*, Badiou relates

⁴³ *Difference and Repetition*, 52.

⁴⁴ *Being and Event*, 58.

⁴⁵ *Ibid.*, 59.

several stories about Deleuze that illuminate their personal relationship. When Badiou was a young student, Deleuze was a famous professor, and whose lectures were said to be “singularly different from everything that was recited elsewhere.”⁴⁶ Badiou read the lecture notes, but never attended them. Badiou says Deleuze’s “canonical references”, Hume and Nietzsche, were orthogonal to his: Plato and Hegel. While both seriously use mathematics for philosophy, Badiou’s mathematics is set theory, and Deleuze’s is manifolds and differentiability. Badiou maintains that Deleuze’s mathematical *ouvrages* were mere metaphors. While the two were colleagues in Paris 8, they never so much as took a walk together. Badiou was a Maoist; Deleuze was more of an anarchist. Badiou goes so far as to call Deleuze’s philosophy an aristocratic one, a philosophy-towards-death, a philosophy privileging the One over the multiple. (Recall that Badiou’s opening gambit in *Being and Event* is that the one is not, and the multiple is.) But Badiou gradually became convinced that “we constituted, without ever having decided to do so (on the contrary!), a sort of paradoxical tandem.”⁴⁷ Towards the end of Deleuze’s life, the two started writing lengthy philosophical letters to each other, trying to understand each other. An epistolary conversation ensued over two years. But in his final letter to Badiou, Deleuze informs him that he has destroyed all of the letters on his end and requests Badiou never publish the letters. Shortly thereafter, Deleuze commits suicide by jumping out of his window.

Why do Badiou and Deleuze’s philosophies look so different from each other? The obvious answer is that the word “being” means something fundamentally different for them. For Badiou, mathematics is ontology, and propositions in set theory *are*. It is not a question of

⁴⁶ Badiou, *Deleuze: The Clamor of Being*, 1.

⁴⁷ *Ibid.*, 4.

whether they have more or less intense being. Being just is expressed mathematically, and that is that. Deleuze might grant being to a proposition in set theory, but if he did, he would probably say it is being with the lowest intensity. For Deleuze, the majestic being is the being of becoming, being that passes the test of eternal return, being that cannot be represented. Recall that Deleuze is committed to the univocity of being, following Duns Scotus, Spinoza and Nietzsche. Being is said in the same sense whenever it is said; God exists in the same sense that an apple exists. Badiou's commitment in this matter is less explicit. He says the multiple *is* and the one *is not*. But what is the status of the void, and the event? Do they *exist*? The void is on the one hand "the proper name of being", and on the other hand "the nothing" that "names that undecidable of presentation."⁴⁸ It seems the void is both being and nothing. What about the event? In what sense does the event *exist*? We might say it is the being of becoming. But what does this *mean*? How do we think it?

One way to reconcile the thinkers is to analyze their philosophies of language. Both thinkers agree that there is something profound that representation cannot subsume. But what is the status of language here? Is language a regime of representation, or does it transcend representation? Analytic philosophy runs in the spirit of philosophy that would make language a regime of representation, a product of the so-called linguistic turn. In *Deleuze and Language*, a study on Deleuze's philosophy of language, a scholar relates Deleuze and Badiou's attitudes towards language and the linguistic turn:

Like Badiou (who calls such people sophists), [Deleuze] intensely dislikes the Anglo-Saxon exponents of the linguistic turn in philosophy, most notably

⁴⁸ *Being and Event*, 59.

Wittgenstein (against whom he uses violent and uncontrolled words in his *Abécédaire*): for him the idea that all philosophical problems might be grammatical problems is anathema.⁴⁹

Here the two are contrasted with the early Wittgenstein, who believed language just was formal propositions. It is probably this idea of language Badiou has in mind when he says language is an “apparatus of recognition” which is “the legal filter for groupings of presented multiples. It is interposed between presentation and representation.” The state, in particular, is “the master of language.”⁵⁰ Poetry is a special kind of language, but it is still guilty. Poetry is that which “set[s] off in search of the nothing [the void]. Yet it must be said that this is exactly what poetry exhausts itself doing; this is what renders poetry, even at the most sovereign point of its clarity, even in its peremptory affirmation, complicit with death.”⁵¹ Despite all this, I will note that Badiou cannot help but lean into poetry when he crowns the void as the “proper name of being”:

Saying that the null-set is unique is equivalent to saying that its mark is a proper name. Being thus invests the Ideas of the presentation of the pure multiple in the form of unicity signalled by a proper name. To write it, this name of being, this subtractive point of the multiple – of the general form in which presentation presents itself and thus *is* – the mathematicians searched for a sign far from all their customary alphabets; neither a Greek, nor a Latin, nor a Gothic letter, but an old Scandinavian letter, Ø, emblem of the void, zero affected by the barring of sense. As if they were dully aware that in proclaiming that the void alone is –

⁴⁹ Lecercle, *Deleuze and Language*, 21.

⁵⁰ *Being and Event*, 303.

⁵¹ *Ibid.*, 57.

because it alone in-exists from the multiple, and because the Ideas of the multiple only live on the basis of what is subtracted from them – they were touching upon some sacred region, itself liminal to language; as if thus, rivalling the theologians for whom supreme being has been the proper name since long ago, yet opposing to the latter’s promise of the One, and of Presence, the irrevocability of un-presentation and the un-being of the one, the mathematicians had to shelter their own audacity behind the character of a forgotten language.⁵²

This is poetic language used for what Badiou deems sacred. Badiou does not have the devil in him to touch on “some sacred region, itself liminal to language” without the sanctity of poetry. Badiou is far from the analytic philosopher who would speak in bleached language for an imagined rigor. Badiou has two voices: the severity of the logician and the awedness of the priest. Deleuze, on the other hand, is a demon, and he creates a strange theory of language in his essay “The Exhausted”, based on Beckett’s plays. In this theory, Language I is an “atomic language in Beckett – disjunctive, abrupt, jerky, where enumeration replaces propositions, and combinatorial relations replace syntactic relations – a language of names.”⁵³ Language II is “no longer that of names but of voices, a language that no longer operates with combinable atoms but with bendable flows.”⁵⁴ Language III is “neither that of names or of voices, but that of images, sounding, coloring.”⁵⁵ This is not so much a theory of language as a theory of its disappearance. His strategy in each instance is to exhaust the language, to push it to its limit until it becomes

⁵² Ibid., 74.

⁵³ Deleuze, “The Exhausted”, 7.

⁵⁴ Ibid., 7.

⁵⁵ Ibid., 9.

something else. Deleuze also sees something stultifying about language as a regime of representation, something that tires him out. But his solution is not to make language more vigorous; it is rather the opposite, to radicalize tiredness into exhaustion. “The tired can no longer realize, while the exhausted exhausts all the possible.”⁵⁶ Exhausting all the possible is his strategy of pushing language beyond its limits, and with it, he wants to make language do more than represent. Badiou says the search of the void, the undecidable, is what poetry “exhausts itself doing”. Deleuze would say that’s exactly correct: exhausting itself is exactly what it ought to be doing, exhausting all possibilities and pushing itself over the limit. But does this make poetry “complicit in death”? Did Deleuze push himself over one too many limits, all the way over the ledge of his apartment?

I am not trying to slander Deleuze. What I am trying to do is warn the reader, to point out that he was playing a dangerous game. Deleuze admits as much: invoking Oedipus’s chorus, “what demon has leapt further than the longest leap?”, he characterizes the method of pushing beyond limits to become something different, seeking an existence intense enough to pass the test of eternal return, as demonic. He says a “nomadic distribution”, where beings distribute themselves over a space without limits, is “demonic rather than divine, since it is a peculiarity of demons to operate in the intervals between the gods’ fields of action, as it is to leap over the barriers or the enclosures, thereby confounding the boundaries between properties.”⁵⁷ Deleuze is not just a heretic; he is saying here that the position he’s advocating for is literally demonic. In a later section, he explicitly theorizes suicide:

⁵⁶ Ibid., 3.

⁵⁷ *Difference and Repetition*, 47.

There is a necessary non-correspondence between death as an empirical event and death as an “instinct” or transcendental instance. Freud and Spinoza are both right: one with regard to the instinct, the other with regard to the event. Desired from within, death always comes from without in a passive and accidental form. Suicide is an attempt to make the two incommensurable faces coincide or correspond. However, the two sides do not meet, and every death remains double.⁵⁸

Death as an empirical event and death as in the Freudian death instinct: the person who commits suicide attempts to make them coincide, but they cannot coincide. Why, then, did Deleuze commit suicide? It would seem that his own philosophy told him suicide would be a mistake, an attempt to do something one cannot do. The standard answer to why he committed suicide is that he was suffering terrible respiratory issues, could not even breathe without a machine, lost all ability to write or perhaps even think. But the philosopher who said “the breast is a machine that produces milk, and the mouth a machine coupled to it”, who said “we are all handymen: each with his own little machines”, surely did not mind being bound to a machine.⁵⁹ Disability theory should inform us that invoking a disability as the reason for suicide does none of us a favor. Nietzsche says: “Many die too late, and some die too early. Still the doctrine sounds strange: ‘Die at the right time.’”⁶⁰ Was Deleuze trying to die at the right time? But Nietzsche’s is not an endorsement of suicide. Nietzsche is saying that the person whose moment of death is a moment that passes the test of eternal return dies at the right time. This is death as event – not a mere

⁵⁸ Ibid., 338.

⁵⁹ Deleuze, *Anti-Oedipus: Capitalism and Schizophrenia*, 1.

⁶⁰ Nietzsche, *Thus Spake Zarathustra*, 97.

empirical event, but a Badiouan event. Let's ask Deleuze a question. Deleuze is careful to distinguish the word "distinct" from the word "different" in his work, as is required for a work that gives a rigorous account of difference. Now, are death as an empirical event and death as an instinct different, or distinct? If they are different, and difference is the object of affirmation, the difference can be affirmed. To affirm this difference is to make the two coincide. Since they cannot coincide, they cannot be different. They must be distinct. The Freudian subject is required to have a death instinct. The death instinct is a desire of the Freudian subject. Subjects cannot cause events. Subjects do not pass the test of eternal return. They cannot; they are constituted on a lack, what cannot be affirmed. Nor is this lack unaffirmable difference, difference that cannot be affirmed for historical reasons. The subject jealously guards its own lack. The lack is its object of desire. The lack is not "nothing". The lack is not the void. It is the manifold in the subject it cannot reference, not because it is metaphysically impossible but because it is cowardly. Death as an empirical event and death as an instinct cannot coincide, because death as an instinct presupposes a lack. The subject who dies out of the death instinct dies in linear time as a dissipation of phenomena. For us to die at the right time, the death instinct must die.

I am not suggesting that Deleuze's death was a result of cowardice, that he could not let go of his death instinct because he remained a Freudian subject and tried in vain to make the death instinct and the empirical event of death coincide. The broader reason I am raising this point is because the idea of dissolving yourself as a subject immediately raises alarms. Psychoanalysis stipulates that such a thing is impossible, after all. Subjects, whether Kantian or Freudian, are right to feel horror at the idea of abolishing their subjecthood. But horror can be generative.

5. METAPHYSICS OF CONSENT

Let's walk through the horror. What would it mean to live as a non-subject? How can we live without the organizing "I", the various guards and defences of the ego? There are alternative forms of life to be found in black studies, Confucian ethics, and Buddhist thought. Confucian ethics, in particular, proposes moral cultivation as a way to achieve sagehood. Moral cultivation is not some grand thing, but a daily, repetitive practice. Sagehood is immanent in all people; the task is to bring it about through repetitive practice. Where Buddhist thought seeks a rather sudden enlightenment, a kind of rupture, an event, Confucian ethics suggests that we take enlightenment one step at a time. Black studies, on the other hand, theorizes something like the sage who never asked to be awakened, who was, in a sense, forced into sagehood.

There are two methods that push at the limits of thought: poetry and mathematics. And while it is easy to think that poetry is non-representational and mathematics is representational, we should refuse that easy conclusion. Badiou uses the term "matheme" to designate a kind of poetic mathematics. Often used in his theory of the subject, this is evocative mathematics, a metaphorical mathematics; formalism deployed for its art, rather than art deployed for its formalism. Badiou does not think we can formalize the subject: "just as it cannot support the concept of truth (for lack of the event), nor can ontology formalize the concept of the subject."⁶¹ We formalized the Kantian subject as a Turing machine, but Badiou's definition of a subject is not that of a Kantian subject. His subject, he says explicitly, cannot be formalized by ontology (which is mathematics for Badiou). So he uses mathemes, rather than mathematics, to describe the subject. But I am hostile to mathemes. I believe they occlude more than they illuminate. The

⁶¹ *Being and Event*, 431.

following, on the other hand, is a case of something like an inverse of a matheme: poetic language that describes a precise mathematical idea. “The tired can no longer realize, but the exhausted can no longer possibilate... Aporia is composed of the inexhaustible series of all these exhausteds... The aporia will be solved if you consider that the limit of the series is not at the limit of the terms, but perhaps anywhere, between two terms, between two voices or variations of voice, in the flow, already reached well before you know that the series is exhausted, well before you learn that there is no more possibility, no more story, a long time since.”⁶² The solution to an aporia is an event. Deleuze is saying, here, of a certain event that happens in a limit. As we have seen, set theory and events are in Badiou’s domain whereas differentiation and limits are Deleuze’s domain. Here we see a mathematical idea with contributions from each. In the Deleuze quote, I want to call attention to this “limit of the series” that is “not at the limit of the terms”. Let’s take a specific limit: a real number defined as a Cauchy sequence.

A sequence of rational numbers (a_n) is a Cauchy sequence if the difference between its terms tends to 0. That is:

$$\forall \epsilon > 0, \exists N \text{ s.t. } |a_i - a_j| < \epsilon \quad \forall i, j \geq N$$

An equivalence relation ($\sim$) between Cauchy sequences is defined by

$$(a_n) \sim (b_n) \iff \lim_{n \rightarrow \infty} |a_n - b_n| = 0$$

Two real numbers defined as Cauchy sequences are equivalent if they satisfy this equivalence relation.

Now, what does it mean for an event to be somewhere between two terms, not at the end of the limit? This is difficult to formalize. Let’s consider what it means to say a real number

⁶² *The Exhausted*, 3, 8.

“exists”. One question that has animated our conversation between Deleuze and Badiou is whether being is univocal or equivocal. I have said that Deleuze explicitly says being is univocal, whereas Badiou is not so explicit. What is at hand is the status of the being of the event. Since the event falls out as a result of Gödel’s incompleteness theorems, we might ask Gödel whether real numbers “exist”. Gödel was a mathematical Platonist. Mathematical Platonism is the idea that there *are* mathematical objects, even uncomputable real numbers, “out there” and that we only hope to grasp at them but only incompletely. Mathematical Platonism is something of a default position of mathematicians, so it will be useful to think through it. In Gödel’s words,

[Platonism is] the view that mathematics describes a non-sensual reality, which exists independently both of the acts and [of] the dispositions of the human mind and is only perceived, and probably perceived very incompletely, by the human mind.⁶³

In this view, all real numbers *are*. But this view raises serious problems for us, since Deleuze’s project is to overthrow Platonism. Gödel’s view equivocates on being, since mathematics exists independently of the human mind: that is, the way in which mathematics exists is different from the way in which the human mind exists. But dismissing this view also raises serious problems, since without Platonism, it is difficult to say what it means for an uncomputable real number to exist. In particular, an uncomputable real number needs an infinite amount of information to represent. If such a real number exists in the same way the number 1 exists, we are saying that infinite information and finite information exist in the same way.

⁶³ Gödel, “Some basic theorems on the foundations of mathematics and their implications”, ed. S. Feferman. 304-323.

Unfortunately, we need somewhat more esoteric mathematical machinery for a proper synthesis of Deleuze and Badiou. What we need is neither limits, or set theory, but fixed point semantics. But before we do that, let's go through some wrong mathemes and incorrect definitions to see what exactly we're trying to accomplish. Remember our objective is a way to precisely state what it means for an event to exist without equivocating on being. Intuitively, what we want is the conjunction of two things that seem contradictory: we want an uncomputable (evental) real number, but we want it to have finite information (exist in the same sense as all other things). I will go through Badiou's matheme of an event, try to change it to include limits, and arrive at our correct definition, which will not be a matheme but a precise mathematical definition with a known meaning.

To explain Badiou's matheme of an event, I must first explain what he means by a "site". Given a situation S , which is a set, a site X is a set which is an element of S such that none of the elements of X are elements of S . No need to overthink here. It is a simple idea:

$$X \in S \text{ s.t. } \forall x \in X: x \notin S$$

It is easy to see that such sets S and X exist. For example, we might have

$$X = 1, 2, 3$$

$$S = \{\{1, 2, 3\}, 4\}$$

Now Badiou's definition of an event is always relative to a site. An event of a site X is "a multiple such that it is composed of, on the one hand, elements of the site, and on the other hand, itself." (188, Being and Event) Badiou's matheme for an event is the following:

$$e_X = \{x \in X, e_X\}$$

Where we write e_X to denote the event of a site X . Badiou is explicit that this is a *matheme*. In other words, it has no formal mathematical meaning. It can be evocative and give us some intuition, but it cannot lead us towards other truths, such as by letting us connect it to known theorems that might illuminate it. But one crucial intuition may be preserved: the event is defined partly in terms of itself. Let's try to synthesize this intuition with our intuition that we need to somehow define events with limits. Moreover, events are undecidable, so they are probably best characterized best as uncomputable reals. Still naively, we might try to define the limit-event as such:

Pseudo-Definition 1. A *limit-event* is an uncomputable real. Designate the event by e .

Two limit-events expressed as Cauchy sequences (a_n) and (b_n) are equal ($\sim$) if and only if

$$(a_n) \sim (b_n) \iff \lim_{n \rightarrow e} (a_n - b_n) = 0$$

The intuition is that the limit-event is a sort of real number that *stops short of its tracks* when it ruptures into an event. But this definition has serious problems. The limit-event in the equation, e , is by definition a real number, whereas n is an index and thus a natural number. It is not coherent to speak of a natural number “going to” a real number in the limit. This is still a mere *matheme*, not *math*. We might try to refine our definition:

Pseudo-Definition 2. A *limit-event* is an uncomputable real. Choose a digit in the limit-event e using a halting problem oracle: digits before e are computable and digits at or after e are uncomputable. Designate i as the index of e . Two limit-events expressed as Cauchy sequences (a_n) and (b_n) are equal ($\sim$) if and only if

$$(a_n) \sim (b_n) \iff \lim_{n \rightarrow i} (a_n - b_n) = 0$$

n here is a natural number and i is the index of the first uncomputable digit which we decided by oracle fiat. But this still doesn't work. All we have done is bring the index of a digit and drop it in as the last element of the limit. This is just a point evaluation where $n = i$. The limit is useless. This isn't a matheme, but it doesn't do the qualitative work we want it to do.

The core intuition to be rescued from these failures, however, is that we want the limit-event to be defined in terms of itself. A fixed point is one mathematical notion that lets us conceptualize functions that are defined in terms of themselves in a coherent way. We want to be able to refer to the limit-event by its fixed point. So the natural mathematical machinery we want is fixed point semantics. Generally, a *fixed point* of a function f is a point x such that

$$f(x) = x$$

That is, when we apply a function to a point, the point does not change. What this means is that repeated applications of the function f do not change the output:

$$f(f(x)) = f(x) = x$$

$$f(f(f(x))) = f(f(x)) = f(x) = x$$

...

Fixed points are naturally related to Deleuze's idea of repetition: "repetition changes nothing in the object repeated, but does change something in the mind which contemplates it" (94). The object repeated – x – does not change, but our minds will change as we contemplate it. Let us keep with the metaphor of the poem; whether this is a metaphor or a rather strict characterization of the process will be clear by the end. Let's suppose that the writing of the poem is a limit-event. We might try to characterize the writing of the poem as a discrete process of the outputting

of words $w_1, w_2, \dots w_n$. But this would not do justice to the poem, and the infinite subtleties that go into the process of writing. Still, there is something *repeated* in the writing of the poem, the being of becoming in eternal return, and each repetition produces something discrete. Can we save these seemingly contradictory intuitions – that there is something infinitely subtle in the writing of the poem, yet there is something discretely repeated each time? What we might need is an infinite approximation of a real number. The writing of the poem is like a closing in, zoning in, ever-closer approximation into the limit-event. With this in mind, consider Dana Scott’s definition of the least fixed point in “Outline of a Mathematical Theory of Computation”⁶⁴:

Suppose an infinite sequence of approximations is such that

$$x_0 \sqsubseteq x_1 \sqsubseteq \dots \sqsubseteq x_n \sqsubseteq x_{n+1} \sqsubseteq \dots,$$

then it seems reasonable to suppose that the x_n are tending to a limit. Call the limit y , and we write

$$y = \bigsqcup_{n=0}^{\infty} x_n,$$

because in the sense of the partial ordering $\sqsubseteq$ the limit is naturally taken to be the least upper bound (l.u.b.). If we imagine the successive terms of the sequence as giving more and more information, then the limit represents a kind of “union” of the separate contributions.⁶⁵

⁶⁴ The metonymic rhyme of this notion in contemporary analytic philosophy finds expression in Kripke’s “Outline of a Theory of Truth”, but it is presented specifically as a theory of language and not a theory of ontology, which is why I opt for Scott instead here. Later we will see how the two intersect.

⁶⁵ Scott, “Outline of a Mathematical Theory of Computation”, 9.

This paper uses x_0 as the least element, but $x_0 = \perp$ is also commonly used. Here, we apply a function F to get to the next value of x : $F(x_i) = x_{i+1}$. y is the least fixed point, so $F(y) = y$. If $x_0 \sqsubseteq x_1$, x_1 has more information than x_0 . The “infinite sequence of approximations” yields continuously more information, each application of F a yet more precise approximation. We are not sure if it is fit to call it an approximation. If F is repeated infinitely in the manner of eternal return, what results is not an approximation but the being of becoming, the being that passes the test of eternal return. There is nothing “lost” in this being; it is being in its full intensity. When it gets to the fixed point, it is no longer an approximation. Now here is the crucial juncture. When certain conditions are satisfied, the operator F ’s least fixed point exists and we can converge to it, *even if it is uncomputable*. So far, when we said something was uncomputable, we threw up our hands and said there was no algorithm. But the machinery we have here gives us a way to think a substantive positive procedure for an uncomputable event. We just have to keep applying the function F to get the next approximation until we “reach” a fixed point. *This least fixed point is the limit-event*. Crucially, there is no finite procedure that decides if least fixed point is a least fixed point. Here is our formal definition of the limit-event:

Definition. A *limit-event* is a fixed point of a monotone operator on a domain. The domain is a complete lattice. The chain of approximations is the *trace*. Two limit-events are equal if and only if they induce the same fixed point. The operator may or may not be Scott-continuous.

First, let’s consider the case where the operator is Scott-continuous. Formally, a function F is Scott-continuous if the following conditions are satisfied:

$$x \sqsubseteq y \Rightarrow F(x) \sqsubseteq F(y) \text{ (Monotonicity)}$$

$$F\left(\bigsqcup_{n=0}^{\omega} x_n\right) = \bigsqcup_{n=0}^{\omega} F(x_n) \text{ (Scott-continuous)}$$

Monotonicity tells you the operator preserves relations of information; if you give it two things, the first thing with less information than the second thing, the application of the operator on each will preserve this relation. Scott-continuity tells us applying the operator after taking the limit (the least fixed point) is equal to taking the limit after applying the operators. When an operator is Scott-continuous (and thus monotone), Kleene's fixed point theorem applies, which says we can get to the fixed point by repeatedly applying F in an ascending chain, like so:

$$\{F(x_0), F(x_1), F(x_2) \dots\}$$

Or, if you prefer another notation,

$$\{F(x_0), F^2(x_0), F^3(x_0) \dots\}$$

What we have here is the process of a repeated application of an operator, where we access the infinite through the immanent unfolding of the least fixed point rather than naming the infinite directly as a completed result. In other words, a limit-event of a Scott-continuous operator F is:

$$\text{lfp}(F) = \bigsqcup_{n=0}^{\omega} F(x_n)$$

This means that the least fixed point is characterized as the least upper bound of all repetitions F .

This way of taking the least fixed point, which is a kind of limit, does not let any one “final” repetition to have the last word. The repetitions are taken as an *immanent* whole, not as a *completed* whole as in ω .

There is a very important point to emphasize here. In the beginning of the book, I mentioned that “computable,” even “Turing-computable,” can have two definitions. The first is “computable given finite time,” and this is usually called “effectively computable.” The second is “computable with infinite time”. This distinction is very important. I will call the first kind of computable computable-1 and the second kind of computable computable-2.⁶⁶ Computable-1 is “computable given finite time” and computable-2 is “computable with infinite time.” Now consider the halting problem again. The halting problem asks: given some Turing machine M , does M halt? This question hides a subtlety. If what we are asking is to write an algorithm that returns “yes” *if M halts*, this is not computable-1, but it is computable-2. Since we are trying to write an algorithm that returns “yes” to the question “does M halt?”, this means we are considering the case where M does in fact halt. This is computable-2, because we have infinite time to run M until it halts. However long M runs, it never runs for an infinite amount of time, since we are considering the case where the algorithm returns “yes” to the question “does M halt?” Now consider the complement: the case where the algorithm returns “no” to the question “does M halt?” This case can equivalently be posed in this way: write an algorithm that returns “yes” to the question “does M not halt?” In this case, since we are considering the case where M does in fact *not* halt, we cannot run M all the way until it halts; M will run for an infinite amount of time. To solve this problem, we have to “step outside” infinity, as it were. More precisely, we need transfinite iteration. Answering the question “does M not halt?” with “yes” is not computable-1, nor is it computable-2. It is uncomputable.

⁶⁶ This is a somewhat nonstandard usage of the term “computable”. Modern logicians usually use “computable” to mean “computable-1” and not “computable-2”. The reason I say “computable-2” is because this aligns with Turing’s original usage of the term “computable” in his paper *On Computable Numbers, with an Application to the Entscheidungsproblem*.

If F is not Scott-continuous, this is the picture we get. With a non-Scott-continuous operator we need transfinite iteration on an inflationary operator. First, the operator is repeated an infinite number of times until it hits the limit ordinal ω . Then we take the supremum at the limit ordinal: $s_1 = \bigsqcup_{n=0}^{\omega} F^n(\perp)$. But we are not done. After we take the supremum, the operator is

applied another infinite number of times until it hits $\omega + \omega$. We take the supremum again:

$s_2 = \bigsqcup_{n=0}^{\omega} F^n(s_1)$. And so on, until we hit the closure ordinal ω_1^{CK} , where we have

$\text{lfp}(F) = \bigsqcup_{n=0}^{\omega} F^n(s_{\omega_1^{CK}-\omega})$. But this is an abuse of notation, because the subtraction in $\omega_1^{CK} - \omega$ is

ill-defined. To be more precise, what we should write is

$$\begin{aligned} F^0 &= \perp \\ F^{\alpha+1} &= F(F^\alpha) \\ F^\lambda &= \bigsqcup_{\beta < \lambda} F^\beta \quad \text{for limit ordinal } \lambda \\ \text{lfp}(F) &= F^{\omega_1^{CK}} = \bigsqcup_{\beta < \omega_1^{CK}} F^\beta \end{aligned}$$

This says that the least fixed point is the result of applying the supremum ω_1^{CK} number of times, each supremum taken after F is applied at each successor ordinal.

If we think of infinity as a completed result, we cannot help but think of it as a qualitative shift from the finite. That is, the finite and the infinite seem to have a qualitative gap between them. In set theory, the smallest infinity or the smallest limit ordinal ω “is essentially different from that of a successor ordinal. This is where we encounter a qualitative discontinuity in the

homogenous universe of the ontological substructure of natural multiples. The *wager* of infinity turns on this discontinuity: a limit ordinal is the place of the Other for the succession of same-others which belong to it.”⁶⁷ Whereas successor ordinals, or natural numbers, succeed other ordinals, a limit ordinal does not. This is a “qualitative discontinuity”, a “wager”, an “ontological decision.”⁶⁸ What this hinges on is how we *refer to* infinity. If we name it with a noun, infinity must be qualitatively different from the finite. But if we refer to it by the fixed point immanent in the process, this qualitative jump does not arise. Fixed point semantics gives us a characterization of an infinite repeating process named by its immanent fixed point, eliding the need for wagers or ontological decisions. The limit-event is not grasped as a completed object, but characterized as a least fixed point. Importantly, this is a characterization of a real number that does not lead to infinite information, like we were concerned with when we were considering whether real numbers “exist”. The reason we cannot have infinite information is because there is “no space to put it in”. In the taking of the supremum of an infinite number of objects in the domain, we have transposed the infinity from space to time, as it were. It is the operation of the supremum that is the moment that passes the test of eternal return. There is nothing wrong with putting something infinite in one moment of time: in fact, eternal return demands that the being of becoming is repeated infinitely, as an infinitely intense moment in time. In the limit-event the function *F* repeats an infinite number of times, but there is no completed infinity in space. Rather, the least fixed point emerges somewhere unspecified in this

⁶⁷ *Being and Event*, 161.

⁶⁸ *Ibid.*, 161.

infinity: “the limit of the series is not at the limit of the terms, but perhaps anywhere, between two terms.”⁶⁹

Now we can state it clearly. Repetition of the same is the application of F . The void is unpresented as the least element with zero information, $x_0 = \perp$. The taking of the supremum is the moment of eternal return, which is repetition for itself, which is difference in itself. The limit-event is the least fixed point. The limit-event can either be computable-2 (if Scott-continuous) or uncomputable (if not Scott-continuous): if uncomputable, it is a Badiouan event. Scott-continuous operators are computable-2, and the Kleene chain of approximations with Scott-continuous operators is computable-2. The taking of the supremum, which requires seeing the entire infinite chain, is computable-2. However, it is not uncomputable like in the halting problem. The chain is infinite, but it is still bounded by ω , its closure ordinal. When we use non-Scott-continuous operators and thus transfinite iteration, the procedure is uncomputable in the stronger sense. In our domain, the closure ordinal in this case can be up to ω_1^{CK} , the first nonrecursive ordinal. There are two ways we can make sense of this. One is that the limit-event reached through Scott-continuous operators is somehow lesser than the limit-event reached through non-Scott-continuous operators. The other is that while it is less difficult to reach the limit-event with a Scott-continuous operator, it does not mean the limit-event is lesser. The second interpretation is correct. Reaching the limit-event is what matters. Consent is what matters. How you got there is unimportant. Some of us get there through daily repetitive practice; others get there through the more jagged path of transfinite iteration. It does not matter. Consent is what matters.

⁶⁹ “The Exhausted”, 8.

Let's ask again: can a large language model write a poem or cause events? No, but we now can say more than simply say it's because poems or events are uncomputable. A large language model's operations fit domain theory very well. The domain is the exhaustive combinatorial space of all the tokens: if we have N tokens, N^k combinations are possible for k -length outputs. The partial ordering is defined by a prefix: $x \sqsubseteq y$ if and only if x is a prefix of y . $\perp$ is the empty prompt. The operator F is the stochastic monotonic inference function that outputs states with strictly increasing information, from n tokens to $n + 1$ tokens. But the large language model stops when it hits the termination token, not when it hits a least fixed point. It could never hit a least fixed point in finite time, anyway. And the only way for it to access infinite time, messianic time, time repeated in eternal return, is to take the supremum, which it can never do, even if the operator is Scott-continuous. Large language models are computable-1, computable in the weak sense: they terminate in finite time. The large language model cannot take the supremum of infinite approximations. Still, large language models can have intensity: two next tokens are not the same in terms of information. In classical information theory, they are the same in the sense that they can be seen as completely computable and yielding no new information (Kolmogorov complexity or Shannon entropy). But with the notion of *epiplexity*, their informational content are distinct. Epiplexity is a recently developed information-theoretic idea that seeks to cross a specific impasse: classic information theory is seen from a God's eye view, where the information of something, like its Kolmogorov complexity, is from the point of view of an all-powerful computer. Kolmogorov complexity is uncomputable, and theorizing it "assume[s] observers with unlimited computational capacity and fail[s] to target the useful."⁷⁰

⁷⁰ Finzi et al., "From Entropy to Epiplexity", 1.

Epiplexity, on the other hand, is “a formalization of information capturing what computationally bounded observers can learn from data.”⁷¹ We might say that a large language model that outputs text with more epiplexity display more intensity in the Deleuzian sense. Still they cannot pass the test of eternal return; they are computationally bounded. They cannot cause events. Note that in epiplexity as information, “information is observer dependent: the same object may appear random or structured depending on the computational resources of the observer.”⁷² If we think of the epiplexity of the tokens as capturing their intensity, we should be careful to note that the intensity is in the observer – the person who reads the large language model’s outputs – and not the large language model, because epiplexity is not a property of the model but defined only in relation to the observer. What we have here is rigorous justification for the idea that a person interacting with a large language model can feel more or less intensity, even if the intensity will never be so strong it will be an event. Which is exactly why large language models can be seductive and dangerous: the user can become addicted to their display of intensity, without ever experiencing true evental art. A person experiencing the finite intensity from a large language model as infinite evental intensity is experiencing AI psychosis.

That aside, the advantage of our mathematical machinery is that it lets us connect disparate phenomena into a unity of interconnecting theorems, where if one accepts one theorem, one must accept the other theorems with apodictic certainty. This does not give us apodictic certainty on whether the phenomena correspond to the theorems, but it gives us nontrivial abductive justification for it. The interconnected theorems form a specific shape, as it were, and

⁷¹ Ibid., 1.

⁷² Ibid., 4.

our intuitions may correspond to this shape. The more intuitions correspond to the theorems, the better. So let us cash out.

The *trace of the limit-event* is *the form of the flesh*. The form of the flesh is the series of the objects of the domain that lead to the limit-event. The form is a memory of every one of the objects, and stabilizes into eternal return at the infinity of the limit-event. *The way in which the form of the flesh stabilizes, the limit-event, is consent*. Consent is the limit-event which brings the form of flesh into a fixed point. *Madness* is a stretch indexed by a, b in a series of objects where each term in the series x_i looks like a local fixed point: $F(x_i) \sim x_i \sim x_{i+1}$ for all objects $i \in [x_a \dots x_{b-1}]$. Such a stretch only occurs in transfinite iteration, because with a Scott-continuous operator, once you have reached a fixed point with an operator, the same fixed point will appear in every iteration of the operator. There is no effective computational procedure to tell if one has reached a fixed point. Therefore there is no effective computational procedure to tell if one is mad or enlightened, because there is no effective computational procedure to decide if the stretch of fixed points is the least upper bound at the closure ordinal or just a local set of fixed points before the closure ordinal. This is because the local fixed points as well as the least upper bound may emerge after infinite iterations. As such, the one experiencing madness might be at a fixed point, a delusion shared with nobody else but that is nevertheless self-coherent and has a rigorous internal logic. They cannot think their way out of it, since they cannot computationally decide if they are enlightened or mad. They sometimes think they are enlightened, that they are God, and so on. But while the enlightened or mad cannot computationally decide if they are enlightened or mad, the non-enlightened and non-mad, the subject, can computationally decide they themselves are neither enlightened nor mad. This is because the problem of deciding if $F(x) = x$ at a specific

real approximation x is semidecidable: $F(x) \neq x$ can be decided, but $F(x) = x$ cannot. This, in turn, is because in the former case, a finite witness exists, but in the latter case, it may not exist, since the fixed point emerges only after infinite iterations. Love is a kind of madness or enlightenment, in the sense that falling in love is the limit-event that is consent across flesh. What holds the lovers together is the fact that they feel each other, sensate-together, consent: they are at a fixed point under the same limit ordinal. The sage knows she is the sage because she sensates-together with the world, “consents with” the world, whereas the madman does not. This knowledge of sagehood is necessarily phenomenological, or rather, *noumenological*, than computational, because of the aforementioned semidecidability. On this point, Badiou has something related to say.

Let’s examine carefully the matheme $e_X\{x/x \in X, e_X\}$. Since X , the site, is on the edge of the void, its elements x , in any case, are *not* presented in the situation; only X itself is... If one wishes to verify that the event is presented, there remains the other element of the event, which is the signifier of the event itself, e_X . The basis of this undecidability is thus evident: it is due to the circularity of the question. In order to verify whether an event is presented in a situation, it is first necessary to verify whether it is presented as an element of itself. To know whether the French Revolution is really *an* event in French history, we must first establish that it is definitely a term immanent to itself. In the following chapter we shall see that only an *interpretative intervention* can declare that an event is

presented in a situation; as the arrival in being of non-being, the arrival amidst the visible of the invisible.⁷³

Badiou says we cannot “verify that the event is presented” because of “the circularity of the question. In order to verify whether an event is presented in a situation, it is first necessary to verify whether it is presented as an element of itself.” This is good intuition: the circularity is indeed what makes the event undecidable. But set theory just isn’t capable of expressing this kind of circularity in a constructive way. Set theory can only tell you that circularities like these lead us to a contradiction. Badiou’s solution to this impasse is to say that only an “interpretative intervention” can “declare” whether an event really is presented in a situation. This is to say that one must go *outside* of the situation to stage an intervention on whether what happened was an event. This is why deciding whether an event has occurred can only ever be a *wager*. From the wager, Badiou develops his theory of the subject: the subject is one who has decided that an event has occurred and decided to become faithful to it. But we do not want subjects at all. In our positive procedure characterized by fixed point semantics, undecidability is replaced with semidecidability. If we say that it is undecidable whether an event has occurred, we mean that even if it did not occur, we cannot decide that it did not occur, and if it did occur, we also cannot decide if it did occur. If we say that it is semidecidable, we mean that if it did not occur, we can decide it did not occur, but if it did occur, we cannot decide if it did occur. There is a strangeness to this idea that upsets intuitions: if it did not occur and we can decide it did not occur, does not this mean that whenever we evaluate an event, we can simply ask if it did not occur? The problem is that our procedure deciding whether it did occur may never terminate if it did in fact

⁷³ *Being and Event*, 190.

occur. We might try to wager our way out of this: I wager that I am mad, or I wager that I am enlightened. But whereas Badiou's wager leads to a subject, and a subject is constitutionally capable of following the wager as a law, the mad or enlightened person is by definition not a subject and is therefore incapable of following the wager as a law. The only way out, the only way to know in some secure footing if one is mad or enlightened, is the noumenological test of consent: a co-computation, the non-terminating computable-2 computation at the fixed point.

Badiou says his subject cannot be (mathematically) formalized. There are a few ways to interpret this. One is that there may be no mathematical expression of the subject. But since for Badiou, math is ontology, that there is no mathematical expression of the subject means the subject is outside ontology, which is absurd. The other is that there is a formalization but he has not found one. I think there is a formalization, and it folds in nicely in our fixed point formalism. A subject is just a closed loop of a series of approximations on our domain, because the subject never reaches the limit-event. The subject has to break out of the loop to reach the limit-event. But why does the subject do this? The subject wants to draw a boundary around unaffirmable difference. The Freudian subject conceives of the lack as unaffirmable difference. But the lack is not unaffirmable difference; it is cowardice in the face of the law. If we need a theory of the subject at all, the subject exists insofar as we must draw a boundary around unaffirmable difference. This is the curious subject/non-subject we are theorizing: a person who must *deal with* unaffirmable difference by being a subject one second, a non-subject the next, drawing a boundary one moment, erasing the boundary the next. This is why what we have is not a metaphysics of the subject, but the subject as an ethical category that we reluctantly admit must exist to draw a boundary against unaffirmable difference. Socrates's ideal sovereign is the

philosopher-king who desires not to rule. This is adjacent to the personhood we are theorizing: a non-subject who affirms every difference as sovereign, but a subject when he rules (draws boundaries) but does not desire to. How can a sovereign simultaneously be a subject? Precisely because he is doing something he does not want to do: in drawing the boundaries, he is creating a law for himself, rather than acting on his sovereign wants. The law he creates is the boundary he draws around unaffirmable difference. This is where our thinking makes contact with political theory. The question is whether transfinite iteration is sufficient for politics, or if the subject is necessary. It seems that the subject is necessary insofar as one ought to not want to use money, which means a user of money must be a subject. What complicates this question is that money is a kind of difference, and it is exactly impossible to tell whether it is affirmable or unaffirmable difference. Affirmable difference is affirmed as an unceasing co-computation. Unaffirmable difference, or at least the boundary around it, must be computed in finite time. This seems semidecidable, but it is not, because unaffirmable difference is not an ontological but ethical category (hence the “*must* be computed in finite time”). Money concerns the relation between what is and what ought to be, or what is and what is valuable: and while we may declare that the being is univocal, it seems much more difficult to say that value is univocal. Deleuze says all things, including God, exist in the same sense, and we follow him in this thought when we say being is univocal; but can we say value is univocal, that is to say, that all things which are valuable are valuable in the same sense? It is valuable to quarantine unaffirmable difference, because we must draw a boundary around, be mad at, unaffirmable difference. But it is also not valuable to quarantine unaffirmable difference, for there is no unaffirmable difference, and the difference will be ultimately affirmable when the fog of history has lifted. We might say money

is the delineation between unaffirmable difference around which we draw a boundary, and unaffirmable difference which becomes affirmable by the ethical and political act of our managing the boundary carefully and continuously with moral cultivation. We might even say money is the delineation between regular time, where there is unaffirmable difference, and messianic time, where all difference is affirmed. We will return to this question in a later section.

How exactly does unaffirmable difference enter our formalism? Unaffirmable difference must be computable-1 (computable given finite time): the subject must be able to “quarantine” what cannot be affirmed, and to “quarantine” it, we must draw a boundary in finite time. This is an ethical injunction, not an ontological one, because the category of unaffirmable difference is metaphysically unstable. Every limit-event may change the status of an unaffirmable difference into an affirmable difference. Affirmable difference is computable-2 (computable given infinite time): affirming the difference just is to take the supremum, which takes infinite time in eternal return. Phenomenologically, to consent just is to be doing something computable-2: when we consent, we do not “make up our minds” about each other, but continue a co-computation with each other. When scholars consent, they are “in conversation.” When lovers consent, they “are with” each other, where the “are” is the “are” of “compute” if we take mathematics (and thus computation) to be ontology; that is, if we say “to compute is to be” and vice versa. Affirmation of difference is ongoing, continuous, and does not stop. If some difference ceases to be affirmed, it was never affirmed in the first place. Phenomenologically, this is not to say that if two lovers, for example, break up, they never loved each other. Rather what I mean is that they affirmed some difference and (presumably) found another difference that they could not affirm. But it is important that the two differences are distinct, for when one breaks up with another, one must

decide which memories to keep. Now, the following may be the most important philosophical result. Unaffirmable difference is uncomputable. Not computable-1, not computable-2, but uncomputable. This is a consequence of the fact that there is no such thing as unaffirmable difference, and that which can be computed is all there is. But there is a rich structure to nothing. Form applies to what is, but it also applies to what is not. This is the distinction between ontology and paraontology. Paraontology names a specific preoccupation of black studies. What does paraontology mean?

Marquis Bey says the paraontological “is, crucially, not really a concept to be pointed to; more closely to truth, paraontology concerns the effective loosening of concepts to which we can point.”⁷⁴ To “point” to a concept presupposes both (1) something to which we can point and (2) a form of pointing. The first implies the concept *is*, that it exists, and the second implies a form of thought in which pointing is “a valid move.” Bey seems to be saying that the paraontological is not a concept, but that pointing itself is admissible. This is why I say that paraontology is concerned with *the form of that which is not*. Ultimately I will argue this is why the paraontological is intimately related to transfinite iteration. Transfinite iteration concerns that which cannot be computed (*are not*) but can be defined (can be pointed to). The solution to the halting problem cannot be computed, but it can be defined; the solution does not exist, but it can be pointed to. If the solution to the halting problem “lives” anywhere, it lives in paraontology.

Why is the paraontological intimately related to transfinite iteration? The answer has to do with whether we passively or actively synthesize nothingness. Deleuze distinguishes between passive synthesis of the present and active synthesis of memory. Is the fixed point formalism

⁷⁴ Bey, *The Problem of the Negro as a Problem for Gender*.

passive or active synthesis? It represents the passive synthesis in that it is a description of the world as it happens, but when the thinker considers the formalism, it becomes active synthesis. What is formalism? Formalism is an artificial sign.⁷⁵ Obviously, natural language is more of a natural sign than formal language, whereas formal language is more of an artificial sign than natural language. The decision to formalize a concept is the decision to demarcate passive and active syntheses of the concept. To understand and deploy this formal language — not just any formal language, but the formal language of passive or active synthesis, the formal language of the fixed point formalism deployed here — is to deploy the demarcation of passive and active synthesis *as an active synthesis*. Before the formalism, Deleuze's book provides, via natural signs, a *passive synthesis* of the demarcation. After the formalism, we have an *active synthesis*. There is a doubledness here: not only do we have a demarcation between passive and active synthesis, we have a demarcation between the demarcation between passive and active synthesis *as passive synthesis* and the demarcation between passive and active synthesis *as active synthesis*. This is the advantage of a formalism: the glory, and the trap, of active synthesis. We must distinguish things, nothingness with mass, and massless nothingness, which are nothingness of pure momentum. Nothingness with mass are meant to become objects of active syntheses, activity of contemplation. To allow nothingness with mass to become habit via passive synthesis is to be engulfed with unaffirmable difference. This nothingness must come to the fore as active synthesis; nothingness with mass must become an object of contemplation so that it may dissolve into massless nothingness, pure momentum. What does not kill you makes you stronger in the sense that it gives you momentum, the highest momentum of pure light. Becoming a star after

⁷⁵ Deleuze, *Difference and Repetition*, 102.

one dies is surely a tragedy; but what ingredient of the highest comedy it is when the destination of starlight after lightyears upon lightyears reaches the destiny of the hero! While consent as fixed point under the first nonrecursive limit ordinal implies the absence of massless nothingness and thus the absence of unaffirmable difference, we at each moment in time may be at any of the fixed points even as we consent. By the composition of each others' habits, we explore the valleys of transfinite iteration, we grope around the form of nothingness, we *have fun*.

Nevertheless, active synthesis cannot distinguish massless nothingness and nothingness with mass. Only passive synthesis can. The mutual cultivation, illumination, and joint creation of the habit of distinguishing massless nothingness and nothingness with mass so that we know what to contemplate and know what to leave to habit, know how to gain powerful momentum from that which we dissolve for each other and in ourselves — this is the end of being, the ceaseless event we call love. Desedimenting unaffirmable difference, the traces of the metaphysical crimes that cause nothingness with mass — this is the project of paraontology, the singular contribution of black studies towards the question how to get on with the business of living in a world seemingly saturated with unaffirmable difference and metaphysical crimes.

Black studies is “the critique of Western civilization.”⁷⁶ So it is appropriate to invoke what is often considered the beginning of Western philosophy: Parmenides' poem on the goddess, where she expounds on what “is” and what “is not.” The following is fragment B2 of the poem:

But come now, I will tell you — and you, when you have heard the story, bring it safely away — which are the only routes of inquiry that are for thinking: the one,

⁷⁶ Cedric Robinson

that is and that it is not possible for it not to be, is the path of Persuasion (for it attends upon Truth); the other, that it is not and that it is right that it not be, this indeed I declare to you to be a path entirely unable to be investigated: For neither can you know what is not (for it is not to be accomplished) nor can you declare it.⁷⁷

Just after this fragment is fragment B3: “for thinking and being are the same.” The philosopher Irad Kimhi thinks B2 and B3 should be read in conjunction as expressing the same point: the idea that the path of “what is” can be investigated and the path of “what is not” cannot be investigated, and the idea that “thinking and being are the same”, are the same point, according to Kimhi, because thought reaches all the way to being. We will come back to Kimhi in a later chapter, but I am flagging him here as essentially in conversation with black studies and paraontology, despite surface misgivings. If paraontology names the investigation of the form of that which is not, this is the investigation of the path of “what is not”. What is not — this is the uncomputable. But how do we *know* what is uncomputable? This is *the problem of thought*, in the veridical sense of the word “problem”: the question posed to Du Bois, “How does it feel to be a problem?”⁷⁸ The problem is this. What if *we* are uncomputable? What is the relation between the uncomputable and unaffirmable difference? Affirmation of difference is the taking of the supremum, either at ω or through transfinite iteration. Unaffirmable difference manifests when the supremum is taken, but it is not a fixed point, because of a non-monotone transformation that happened in the set which is the object of the supremum-taking.

⁷⁷ Curd, ed., *A Presocratics Reader*, 55.

⁷⁸ Du Bois, *Souls of Black Folk*, 1-2, chap. 1, para. 1

Unaffirmable difference does not *mean* anything. Unaffirmable difference cannot have a formal definition. It is neither definable nor computable in the formal sense. Unaffirmable difference is unaffirmable because of history, because of metaphysical crimes that have been committed throughout history. Ideally there would be no unaffirmable difference and two people could get to consent with a Scott-continuous operator, which is in the realm of computable-2. The liberal dream, or delusion, is that we can agree upon rational reflection on all manner of topics. Characteristically, this agreement is a final verdict reached after finite, rational reflection: it is computable-1. Notice it is not computable-2. The liberal delusion is a delusion because if they were thinking in ideal terms, the liberals would recognize that consent is computable-2. But they think it is computable-1. The liberal delusion is to ignore the problem of thought, which is to say, it is a strategy for *not thinking*. The liberal subject as such never reaches the fixed point, which requires computable-2 at a minimum. When they consent, their consent is a thin one that is a “yes” or “no” rather than a sensating-together, a co-computation, a being-together, a “consent not to be a single being.”⁷⁹ Transfinite iteration is navigation of the valleys of the uncomputable. The complication is that it is often difficult to know what is formally definable, and thus can be navigated through transfinite iteration, and what is not formally definable, and cannot be helped with transfinite iteration. The formally definable is the realm of uncomputability that can be managed by transfinite iteration. The formally undefinable is the realm of unaffirmable difference. To find what is formally definable and what is not formally definable cannot be done purely formally, though the formal can help. Finding what is and is not formally definable, which is to say, finding the boundary between affirmable and unaffirmable difference, is the project of

⁷⁹ Glissant, “Conversation with Édouard Glissant Aboard the Queen Mary.”

desedimentation: finding the ways the metaphysical crimes affect the one or ones you consent with. Dmitri Nahum Chandler says paraontology names “the project of a desedimentation; it is genealogical and deconstructive, yet neither; a desedimentation of the status of the distinctions among beings, a critical account of their ostensible ground or predication, and a critical reconsideration of the hierarchies and orientations by which they are articulated or understood as in relation.”⁸⁰ The suspicion is that philosophy⁸¹ is a metaphysical crime, or at least a reaction to a metaphysical crime in the morally wrong direction. The suspicion, and I think it is correct, is that philosophy just is so much sediment that needs to be desedimented, to be critically reconsidered. For Derrida, philosophy inaugurates itself as an “irruption” between philosophy and madness.

[B]y virtue of the historical enunciation through which philosophy tranquilizes itself and excludes madness, philosophy also betrays itself (or betrays itself as thought), enters into a crisis and a forgetting of itself that are an essential and necessary period of its movement. ...

[T]he choice and division between the two ways separated by Parmenides in his poem, the way of logos and the non-way, the labyrinth, the palintrope in which logos is lost; the way of meaning and the way of nonmeaning; of Being and of non-Being. A division on whose basis, after which, logos, in the necessary

⁸⁰ Chandler, “Paraontology; or, Notes on the Practical Theoretical Politics of Thought”

⁸¹ In some circles there is often debate about whether philosophy just is Western philosophy, a “white people studies” that traces its genealogy from Greek thought to the inhabitation of the white universal subject, or whether there is, for example, “Chinese philosophy.” I think this debate can be mediated by recognizing that while the former is largely true, the destruction of, the hastening of the death of, philosophy could be called philosophy. This is why I could call this book a work of philosophy, with some reservations.

violence of its irruption, is separated from itself as madness, is exiled from itself, forgetting its origin and its own possibility.⁸²

If philosophy “excludes madness” and “betrays itself as thought”, if “logos ... is separated from itself as madness” in “the necessary violence of its irruption”, and the liberal subject is the crowning achievement of philosophy, we may say that the liberal subject excludes madness, that they foreclose madness. There is an asymmetry here: while philosophy excludes madness, is constituted and inaugurated on this violent exclusion, madness is not constituted on excluding philosophy. Philosophy has a boundary on which it is constituted; madness has no boundary. But here we must perhaps carefully distinguish the two senses of the term “mad”. There is madness as psychosis, and there is madness in the more banally emotional sense of the term. One important character of psychosis is that boundaries collapse in psychosis. Meanings, around which are boundaries, collapse into one another into non-meaning. On the other hand, drawing boundaries is just what one does when one is mad. If I am mad at you, I draw a boundary. This is not mere metaphor. If I am mad at you, I consider you unaffirmable difference. Unaffirmable difference must be quarantined. I must draw a boundary around it. I must draw a boundary around unaffirmable difference, as it makes me mad. The two terms will perhaps be seen in a unity when we consider that the failure to draw such a boundary is how psychosis starts. Sometimes, whole civilizations consider each other unaffirmable difference, and draw a boundary around each other. In this instance, both are mad. But when a civilization is mad, the civilization is mad-together. That is to say, the members of the civilization consent with one another. They consent not to be a single being. Members of a civilization that consent with one

⁸² Derrida, “Cogito and the History of Madness”.

another are at a fixed point under the same limit ordinal τ . What we ordinarily mean by a schizophrenic person, a person in psychosis, is someone who is at a fixed point under a specific limit ordinal μ no other person is under. But all truths are assigned, in Kripke's sense, at the limit ordinal ω_1^{CK} (see the section "Thinking, Being and Language"). Every person can consent when they are at a fixed point under this limit ordinal. It is in this sense that "Western civilization," if there were such a thing, cannot be called a "civilization" at all. Members of "Western civilization," that is to say, liberal subjects, are constituted on excluding madness. They are not mad-together. Though to draw a boundary is what one does when one is mad, because liberal subjects draw boundaries *around madness*, this boundary-drawing is self-defeating. The liberal subject does not know how to be mad. While this may sound like a good thing, the outcome is that they do not consent in the thick sense. They do not sensate-together.

Then is all sex that liberals do sexual violence? If sex without consent is sexual violence, and liberals cannot consent, we might be compelled to this conclusion. But this is too searing of an indictment, and we should see non-sexually violent liberal sex as rather an attempt to take the supremum, attempt to affirm, while being constitutively barred from the capacity to affirm. What is characteristic about sexual violence is that it is not only sex without consent but sex that damages the capacity for affirmation. Sexual violence knocks the survivor off the fixed point, or makes it difficult for the survivor to reach the fixed point. Following this phenomenology, we may say that sexual violence is a non-monotone transformation in the domain, though not all non-monotone transformations are sexual violence. Sexual violence scrambles the information in the flesh and destroys the meaning of the path thus walked. Therefore, it destroys the possibility of certain fixed points: it forecloses certain limit-events, certain well-trodded paths of getting to

consent, the known operators $\{F_i\}$. The sexually violated may have to find a non-continuous path to get to consent: they must labor to create a new operator F' that is monotone but may not be Scott-continuous. Death is the annihilation of flesh, but sexual violence is the annihilation of the *form* of flesh: one of the forms of flesh is in its capacity to affirm, to take its supremum into the fixed point, and sexual violence destroys this capacity. This is why sexual violence is a metaphysical crime: it creates unaffirmable difference. If no Scott-continuous operator will suffice, survivors of sexual violence are forced to leave the well-trodden path, the well-defined limits, the fields defined and well-traversed by the gods. They thus enter the demonic field, Deleuze's "nomadic distribution".

What happens then? One possibility, which should be rejected based on a plethora of phenomenological evidence, is that survivors of sexual violence have permanently lost the capacity to affirm, that they can never reach the fixed point, that they can never get to consent again. This should be rejected because we see plenty of evidence to the contrary: plenty of survivors of sexual violence recover their capacity to affirm and to sensate-together again. At the same time, this is not an easy task. Someone who has been sexually violated needs to *labor* to get to the fixed point again. Our formalism can characterize this labor, and how arduous it is, in a formal way. First, if the domain is a complete lattice, a theorem known as Knaster-Tarski applies: every complete lattice has a fixed point. What it would mean, phenomenologically, for the domain to be a complete lattice can be considered afterwards. Second, if the survivor can find an inflationary operator, an operator that preserves and adds information, but never subtracts, a theorem known as Bourbaki-Witt applies: when the domain is a complete lattice, an inflationary operator can be used in transfinite iteration to get to the fixed point. From the broken pieces the

survivor may thus embark on a heroic journey of transfinite iteration. In transfinite iteration, the supremum is taken at each limit ordinal when the series has been exhausted. The repetitive taking of this supremum is repetition that includes difference. The difference, which is not representable and thus not finitely computable, is the local fixed point. The repetition is in the iteration of transfinite iteration: the supremum is taken at each limit ordinal. The “final” repetition, repetition for itself, is “making repetition ... the thought and the production of the “absolutely different”; making it so that repetition is, for itself, difference in itself.”⁸³ Difference in itself is the difference of consent, the warmth of the limit-event. The survivor exhausts themselves and pushes themselves beyond their limit, limit ordinal after limit ordinal. Only after this transfinite climb may the survivor reach the warmth of the limit-event.

This is why demons can be useful. Demons do what they want; sometimes what they want happens to align with the transfinite climb. Why should God abandon his creation to the demonic field? Why should omnipotent God not put back the survivor immediately onto the continuous path? But God does everything for a reason! When God does *not* do something, is that also for a reason? Yes, surely yes; and this is the distinction between God’s reason and our reason. When we do something, we may do it for a reason; when we do *not* do something, it is silly to ask why we did not do it. For we have finite time, finite choices. But when God does *not* do something, there is a reason he did not do it. For God can make all the choices at the same time. Does it help to tell the survivor, “what happened to you happened for a reason”? No! For there was *no reason*. A non-monotone transformation on a chain of increasingly informative, increasingly more truthful approximations to the truth — flesh — is supposed to *erase*

⁸³ *Difference and Repetition*, 122.

information. A proof proceeds by invoking a reason for each step in the proof; in the same way, every step of a computation has a reason. Non-monotone transformations are supposed to erase information from this chain, but information is not supposed to get erased from a chain where that information has already accumulated. So what happened when a non-monotone transformation happened? Well, we must say that what happened happened for no reason. For it was not a computation. We may forget things, but memories, information pressed in the flesh, do not get erased. Does the flesh remember the non-monotone transformation? The flesh exactly does *not* remember the non-monotone transformation. To remember is to remember something that existed, or a computation in the past; a non-monotone transformation is not a computation. It is not an object of remembrance. This does not mean the perpetrator does not remember what they did. They surely do. It means the survivor exactly does not remember what happened. Of course, the survivor remembers what happened, vaguely, what room they were in, who was a bystander, who was the perpetrator, and so on; but the survivor does not, cannot, remember the specific (non)moment of the non-monotone transformation. What can the survivor do about that? What can the survivor do but *laugh*? Is the habit of the survivor's laughter a cultivation? In laughing an empty laugh, the survivor filters those who would be a bystander or a perpetrator. Bystanders or perpetrators do not see that the laugh is empty. But those who would have acted otherwise see that the laugh is empty. In laughing a hearty laugh, the survivor affirms those who would have acted otherwise. What sort of habit is the survivor's laughter? To laugh is to affirm; the empty laugh is the empty affirmation of the chain on which the non-monotone transformation has been applied. The empty laugh is a habit of nothingness with mass, an affirmation that has become a habit precisely because it could not be affirmed. Is the hearty laugh only possible after

the transfinite climb? No! But a hearty laugh might be the sound of exhausting another limit, climbing another limit ordinal into yet more warmth. The transfinite iteration is full of warmth and laughter, though not every laughter there is warm.

Deleuze says “the world “happens” as God calculates; if the calculation were exact, there would be no world.” The world “happens” as God calculates — God does everything for a reason, God “does” the world, and every that which He does has a reason. Now whether Deleuze is a demon or an angel hinges on what he means by “exact”: does he mean computable-1, finite computation? If so, he is surely an angel! — Kant’s world, the world of computable-1 consent, is no world at all. So if God’s calculation was finite, there would be no world. But by “exact” does he mean computable-2? This would imply that “not exact” is “uncomputable” in the stronger sense. Is it true that if there were nothing uncomputable, there would be no world? Surely there would be no world of demons if there were nothing uncomputable. But God’s kingdom is in the continuous path, the computable-2 consent, the comedic path. The path of transfinite iteration, the tragicomic, while full of funny and harrowing stories, is the path one is thrown off to *for no reason*. God did not do the non-monotone transformation! What God did was not put the survivor immediately back onto the continuous path, and that was for a reason. What was the reason? Well, the mathematical fact that transfinite iteration is needed to get back to the fixed point. To put the survivor back immediately onto the continuous path would be asking God to do something uncomputable. God does not do that. The world would cease to happen if God ceased to calculate. And to do something uncomputable is to cease to calculate, to do something for no reason. But God does everything for a reason.

6. THE DOMAIN OF MEAT AND FLESH

There is a crucial part in the discussion of domain theory in our philosophy that we left out: what domain are we talking about, mathematically speaking? I hinted at this by saying that the trace of the limit-event is the form of the flesh, but I have not defined the domain. We need to know what phenomenological thing we are talking about when we are talking about the domain the operator operates in. Defining the domain is not straightforward. To motivate our discussion, let's consider a somewhat disturbing question. After Christ was crucified, was his body meat or flesh? The painter Francis Bacon and Deleuze has a few words to say about this.



Figure 1. Francis Bacon, *Three Studies for a Crucifixion*

Meat is the state of the body in which flesh and bone confront each other locally rather than being composed structurally. The same is true of the mouth and the teeth, which are little bones. In meat, the flesh seems to descend from the bones, while the bones rise up from the flesh. ... Pity the meat! Meat is undoubtedly the chief object of Bacon's pity, his only object of pity, his Anglo-Irish pity. On this

point he is like Soutine, with his immense pity for the Jew. Meat is not dead flesh; it retains all the sufferings and assumes all the colors of living flesh. It manifests such convulsive pain and vulnerability, but also such delightful invention, color, and acrobatics. Bacon does not say, "Pity the beasts," but rather that every man who suffers is a piece of meat. Meat is the common zone of man and the beast, their zone of indiscernibility; it is a "fact," a state where the painter identifies with the objects of his horror and his compassion. The painter is certainly a butcher, but he goes to the butcher's shop as if it were a church, with the meat as the crucified victim (the Painting of 1946 [3]). Bacon is a religious painter only in butcher's shops.

I've always been very moved by pictures about slaughterhouses and meat, and to me they belong very much to the whole thing of the Crucifixion ... Of course, we are meat, we are potential carcasses. If I go into a butcher shop I always think it's surprising that I wasn't there instead of the animal.

84

"Every man who suffers is a piece of meat." And we shall be remiss to neglect that sexual violence so often takes the form of *thinking the other as a piece of meat*. With meat we have suffering flesh. With meat we have the pure physicality of flesh, devoid of the communal, redemptive, immanent connotations of flesh Michel Henry might want. With this we have arrived at a definition. Our domain is *the form of meat and flesh*. A form of meat is flesh without consent, and therefore not flesh at all, that which has not reached the limit-event (consent); a

⁸⁴ Deleuze, *Francis Bacon: The Logic of Sensation*, 22-23.

form of flesh is flesh with consent, that which has reached the limit-event (consent). The lattice is complete: the one, divine flesh exists. A repetitive application of an operator, a habit, can form meat into flesh at the least fixed point. As Deleuze says, “habit *draws* something new from repetition — namely, difference.”⁸⁵ The operator is a habit that repeats, but draws a difference in the $x \sqsubseteq F(x)$: the application of the habit begets more information. Sexual assault is a non-monotone transformation that makes one into meat. But how does a non-monotone transformation make us into meat? What does that mean? Recall the definition of monotonicity:

$$x \sqsubseteq y \implies \phi(x) \sqsubseteq \phi(y)$$

Non-monotonicity means this implication is not satisfied: that is, for non-monotonic function ψ , even when y has more information than x , $\psi(y)$ may have less information than $\psi(x)$. If flesh is the trace of the limit-event, or the chain of real approximations x_i , sexual assault is a non-monotone transformation ψ on every element in the chain, the whole memory inside flesh. Given x_n and x_{n-j} , both configurations of flesh where x_n is “closer” to con/sensual flesh than x_{n-j} , after the non-monotonic transformation $\forall_i \psi(x_i)$, the whole chain might be scrambled. Previous to the assault, the survivor knew their chain x_i was ascending toward the limit-event; after the assault, their entire chain may have been scrambled such that there is no guarantee $\psi(x_n)$ is closer to the limit-event than $\psi(x_{n-i})$. This is why sexual assault is sex without consent: sex is characterized by the touching of the most intimate parts of flesh, where two beings of flesh, two beings of traces of the limit-event affect each other and transform each other with each their own operators ϕ_1 and ϕ_2 . When these operators are monotone, the traces are transformed into other values, but retain their ordering of information. The two flesh, chains of real approximations

⁸⁵ *Difference and Repetition*, 97.

$\phi_1(x_1) \dots \phi_1(x_\omega)$ and $\phi_2(x_1) \dots \phi_2(x_\omega)$ where $\bigsqcup_i^\omega \phi_1(x_i)$ was a least fixed point of ϕ_1 (and same

for ϕ_2) can go on with swapped monotone operators $\phi_2(\phi_1(x_i))$ and $\phi_1(\phi_2(x_i))$ and remain con/

sensual flesh: $\bigsqcup_i^\omega \phi_1(\phi_2(x_i))$ and $\bigsqcup_i^\omega (\phi_2(\phi_1(x_i)))$ are least fixed points of $\phi_1 \circ \phi_2$ and $\phi_2 \circ \phi_1$,

respectively. But $\bigsqcup_i^\omega \psi(\phi(x_i))$ need not be the least fixed point of $\psi \circ \phi$ where ψ is non-

monotone. This is what it means to say sexual assault is a non-monotone operation: it can make

previously con/sensual flesh, flesh at the fixed point, into meat. Now this is what we mean by

unaffirmable difference: sexual assault, as the application of some non-monotone operator ψ ,

draws a difference between every $\phi(x_i)$ and $\psi(\phi(x_i))$. But this difference cannot be affirmed. To

affirm that difference is to subject it to the test of eternal return. To affirm a moment is to take the

supremum of the flesh at that moment. For monotone, Scott-continuous operator ϕ , $\bigsqcup_i^\omega \phi(x_i)$ is

the least fixed point, the moment eternal return passes over into the limit-event; for non-Scott-

continuous but monotone, it is a moment one cross over into the next limit ordinal and onwards

in the transfinite iteration. But for non-monotone ψ , $\bigsqcup_i^\omega \psi(\phi(x_i))$ is not a fixed point, nor is it any

special point; it does not mean anything philosophically other than literally being the least upper

bound. Fixed points are not generally guaranteed to exist for non-monotone operators $\psi \circ \phi$;

Knaster-Tarski guarantees a fixed point only for monotone operators. Sexual violence is a non-

monotone transformation, which creates unaffirmable difference, which is nothingness with

mass. Nothingness with mass is the phenomenology of this $\bigsqcup_i^\omega \psi(\phi(x_i))$ for a non-monotone ψ .

One takes the supremum of the limit, but one does not achieve a fixed point. The supremum is nothingness with mass. There is the chain of approximations, the flesh, which give it mass. But there is no fixed point. The unaffirmable difference one feels is the lack of the fixed point. For example, consider one who has been betrayed by a family member's sexual violence. There is unaffirmable difference in this one's flesh; the non-monotone ψ has been applied and has left a point in the chain of approximations. This person attempts to take the supremum, to affirm a moment in eternal return, and fails, because there is no fixed point. What does this feel like? It feels like *falsity*. Propositions that the person believed to be true seem false; all of them seem to be a lie. A person this person trusts, whose propositions this person believes to be true, seem to be false during this moment. Betrayal leaves a mark in that trust becomes more difficult, but the specific betrayal of sexual violence makes trust not merely more difficult but makes so many propositions believed to be true flip to false, because sex is supposed to be a moment that passes the test of eternal return. Sex, the highest ecstasy, is a prototypical moment that is affirmed. Sexual violence infects specifically the *form of the moment of eternal return*, the taking of the supremum; the form of the moment of eternal return is the affirming moment of feeling the fixed point, which becomes broken as the fixed point no longer exists. What can one do about this? The nothingness with mass must be dissolved into nothingness without mass, pure momentum. This must be done with active synthesis, activity of contemplation. Active synthesis may come from the survivor's own contemplation, or another's contemplation of the survivor. Another person may notice the person's nothingness with mass that has become habit, object of passive

synthesis, and bring it to the fore as an object of active synthesis. If love can heal sexual violence, it is through these acts of noticing.

There is one mathematical point that is important to emphasize. A non-monotonic operator *may* scramble the ordering, but does not *always* scramble the ordering. The relevant quantifier is an existential, not a universal. That is, we have $\exists x, y : x \sqsubseteq y \wedge \psi(x) \not\sqsubseteq \psi(y)$, but we do not have $\forall x, y : x \sqsubseteq y \wedge \psi(x) \not\sqsubseteq \psi(y)$. If it were the latter, sexual assault would be a sort of certain damnation, every memory out of place, every corner of flesh defiled, all knowledge upended. But as it is the former, sexual assault presents itself rather as a kind of pervasive uncertainty about one's own body, which part of one's body is safe, what arbitrary incident might trigger a traumatic flashback. It is important to note this distinction, because sexual assault does not break one completely, and to think of it as such and treat survivors as such is a second-order violence. What sexual assault brings about is, instead, a nagging feeling that something is profoundly wrong, but the survivor can't quite put their finger on it. This existential may still compel the survivor to undertake the heroic labor of transfinite iteration to find another fixed point, for the current chain that led to the fixed point can no longer be trusted. As old habits may bring about a horrible flashback, the survivor adopts new habits.

There are still several difficulties here. Why would meat/flesh⁸⁶ be a complete lattice? What would it mean for meat/flesh to be in a partially ordered set? A partially ordered set is a set where for certain pairs of elements, one element precedes another. Not every pair need have such an ordering. So we have two configurations of flesh x and y where $x \sqsubseteq y$. What does this mean? We want to say y is in some sense "closer" to con/sensual flesh than x . If $y = F(x)$ and F is some

⁸⁶ Previously I said the *form* of meat and flesh is the domain. Sometimes I drop the "form of". Ultimately it does not make a difference because the form (yi) and the real (qi) are one.

habit, this habit of moral cultivation brings us one step closer to con/sensual flesh. But we are still lacking a mathematical definition of the domain. We have said it is meat or flesh, but that does not give us a mathematical definition. So let us work towards that definition.

In “Dealing with Kant,” we replaced Kant’s categories with set theory, then set theory with computability theory to claim that a Kantian subject can be computationally modeled as a Turing machine, that the halting problem secures the existence of noumena, and that the uncomputable event is noumena. We extended this idea to say that “enlightened sensing,” intellectual intuition, is generative in that it causes events. But there is a very basic objection to this model: humans are finite beings. Even if we could be said to “process data” like a Turing machine, while Turing machines have infinite time, we do not. In addition, we seem to have abandoned the Turing machine formalism when we transitioned to the fixed point formalism. What is the relation between the two? Here I want to address both problems. The technically inclined reader may consult Appendix A, my paper “Diagonalizing Through the ω -Chain: Iterated Self-Certification on Bounded Turing Machines and its Least Fixed Point,” to anticipate what I am about to say. But I will explain the core ideas of the paper here, and how they cohere with the rest of the ideas developed in this book.

Let’s say the Kantian subject is bounded by time T . That is, the Kantian subject, modeled as a Turing machine, can only do T steps of computation. For example, if adding two numbers takes n steps of computation, a Turing machine bound by T time can only do T/n additions. Now consider the problem which I’ll call Self-Halting: given an arbitrary Turing machine A with time bound T , can A decide if A halts in time T ? This has to do with the idea of self-simulation. When I think about my own thoughts, I can sometimes condense my thoughts into an insight or a

feeling, but this is not always so. Some thoughts pathologized by psychology, such as intrusive thoughts and obsessive thoughts, seem to be fully carried out each time without condensation. Other thoughts not so pathologized can also be carried out each time without condensation, such as a recurring nagging regret or mathematical proofs which cannot be further compressed. The point is that there are *some* thoughts, though certainly not all thoughts, which has this character of resisting condensation. Since they cannot be condensed, when we think of them, we carry them out fully in time. We might even say that each time we have those thoughts, we take roughly the same amount of time. We call this simulating a thought: simulation of a thought is the carrying out of the thought in its entirety in time without condensation. Self-simulation, then, is the idea of myself simulating myself in the entirety. We saw in the Kant section that Kant forbids the subject from taking the “I” as a predicate, and we pointed out that in the halting problem, the program *impasse* takes itself in as a predicate. We are doing something similar with the idea of self-simulation: I, the subject, take myself in as a predicate to simulate it. The question of Self-Halting is whether I can decide if I “halt”. Why halting? Broadly speaking, it does not have to be halting; by Rice’s theorem, we can substitute “halt” with “any nontrivial semantic property”. Halting just happens to be a paradigmatic nontrivial semantic property, because if I do not even know if the self-simulation will ever stop, it seems that I can have no foreknowledge about what the self-simulation will give me (I do not know if it will “output” an answer at all). We seem to be in a bind: for me to know myself fully and hopefully abolish myself as subject, I must be able to simulate myself. But I do not know if the self-simulation will ever halt, or if it will ever tell me something nontrivial about myself. All I can do is simulate myself and hope for the best.

Or is it? Suppose that we have access to a Turing machine that is just a little bit stronger than the Turing machine being simulated. That is, suppose that I have access to a subject just a little bit stronger than myself. If the Turing machine being simulated is bounded by time T , the new Turing machine should be able to compute just one more step of computation; it should be bounded by time $T + 1$. That is, a slightly stronger version of myself simulates myself. A slightly stronger subject simulates a slightly weaker subject. Suppose that there are a chain of such Turing machines or subjects, each more powerful than the last, all the way to ω . We can formalize this with domain theory.

Let M be the Turing machine under consideration: the Turing machine of which we want to find if it halts or not. Let D be the domain of partial functions $p : \mathbb{N} \rightarrow \{0, 1, \perp\}$. We interpret $p(k) = 1$ as “ M halts by step k ,” and $p(k) = 0$ as “ M has not halted by step k ,” and $p(k) = \perp$ as “the behavior of M at step k is not yet defined.” Philosophical interpretation: $p(k)$ is a “slightly stronger” subject than $p(k - 1)$. Where $p(k - 1)$ tells us if M has halted by step $k - 1$ or tells us it doesn’t know, $p(k)$ tells us the same thing for one more time step, by step k . $p(k - 1)$ tells us the result of simulating M up to step $k - 1$; $p(k)$ tell us the result of simulating M up to step k . Now let’s define the operator F . What does our operator do, philosophically? It is a habit of self-cultivation, a habit of compressing contemplation, that makes us iteratively more powerful subjects (until we finally abolish our subjecthood). What this means mathematically is that F takes a subject and outputs a slightly stronger subject. So define $F : D \rightarrow D$ by induction on k . Induction is a mathematical technique where we define a function by first defining the bottommost case, then build it up towards the top. In this case we will build it up towards infinity, or ω . We won’t bound it. For the bottommost case where $k = 0$, what p is does not

matter; since we are simulating exactly 0 steps, we just have to look at M at the beginning to see if it is in the halting state or not. Therefore:

$$F(p)(0) = \begin{cases} 1 & \text{if } M \text{ halts at or before step 0,} \\ 0 & \text{otherwise.} \end{cases}$$

For $k > 0$, the value $F(p)(k + 1)$ extends p by one step:

$$F(p)(k + 1) = \begin{cases} \perp & \text{if } p(k) = \perp, \\ 1 & \text{if } p(k) = 1, \\ 1 & \text{if } p(k) = 0 \text{ and } M \text{ halts at exactly step } k + 1, \\ 0 & \text{if } p(k) = 0 \text{ and } M \text{ does not halt at step } k + 1. \end{cases}$$

Starting from the empty partial function $p_0 = \perp$, define $p_{i+1} = F(p_i)$. Again, F takes in a slightly weaker subject (p_i) and outputs a slightly stronger subject (p_{i+1}). By induction, p_i is defined on $\{0, 1, \dots, i - 1\}$ and undefined beyond, and the sequence forms an ascending ω -chain in D :

$$p_0 \sqsubseteq p_1 \sqsubseteq p_2 \sqsubseteq \dots$$

Now what do we have here? We have an infinite number of slightly stronger subjects. For reasons I won't get into but you can see in the appendix, F is monotone and Scott-continuous. So Kleene's fixed point theorem applies, and we have the following:

$$p_\omega = \text{lfp}(F) = \bigsqcup_{n < \omega} p_n = \bigsqcup_{n < \omega} F^n(p_0)$$

Taking of the supremum $\bigsqcup_{n < \omega} p_n$ takes an infinite amount of time to compute, as it needs to look

at all of the infinite number (ω) of subjects p_i . It is the moment of eternal return, the moment the subject abolishes itself.

7. THE LOGICAL PROPOSITIONS THAT BECAME FLESH

In *Thinking and Being*, Kimhi says it is a mystery “how the *logos* — the thought — becomes flesh in the sensible consciousness of a human being.”⁸⁷ He says “any unity in consciousness is essentially self-consciousness of that unity”⁸⁸. We can see this according to our fixed point formalism: where $F(x) = x$, the unity is the fixed point x , and self-consciousness of that unity is $F(x)$. Deleuze says we contract habits through contemplating; “it is simultaneously through contraction that we are habits, but through contemplation that we contract.”⁸⁹ F is a habit, but it is a habit contracted through contemplating, which is characteristically self-conscious. The self-consciousness at hand here is not an awkward self-consciousness of feeling out of place, but an assured sense of unity of thought and flesh, of thought becoming flesh.

Kimhi’s book starts with the fragment of Parmenides where he declares “thinking and being are the same”. But what does it mean for the two to be “the same”? A possible reading, which Kimhi attributes to Kahn, is that there is a *correspondence* between thinking and being. In this view, that p is true means there is a corresponding state of affairs in which p is true. For example, when A judges that “Jupiter is round”, this is true only if it corresponds to the state of affairs where Jupiter is, in fact, round. But what happens when A judges that “the judgment that Jupiter is round is true”? Kimhi cites Peter Geach on this point:

For suppose A judges that Jupiter is round: call this judgment J1. If A reflects minimally, A will also be able to judge: My judgment that Jupiter is round is true; call this judgment J2. J1 and J2 clearly stand, and indeed both stand, together:

⁸⁷ Kimhi, *Thinking and Being*, 62.

⁸⁸ *ibid.*, 64.

⁸⁹ *Difference and Repetition*, 98.

they are not made true on two different accounts. Given that J2 is a first-person judgment simultaneous with J1, A who judges J1 needs no further justification, no additional data, to go on to J2. But on the theory of truth as correspondence to facts, J1's truth would be its correspondence to the roundness of Jupiter, and J2's truth would be its correspondence to a quite different fact, namely, J1's correspondence to the roundness of Jupiter. This is good enough reason to reject the theory; all the same... it taught us something: an adequate theory of truth must pass the test that this theory failed, namely, that J1 and J2 are made true in the same way and not on different accounts.⁹⁰

In "Outline of a Theory of Truth", Kripke notes a similar problem:

It is easy, within the confines of the orthodox approach, to assert

(6) Snow is white.

to assert that (6) is true, that '(6) is true' is true, that "'(6) is true' is true' is true, etc.; the various occurrences of 'is true' in the sequence are assigned increasing subscripts. It is much more difficult to assert that all the statements in the sequence just described are true.⁹¹

The "orthodox approach" Kripke mentions is Tarski's theory of a hierarchy of languages, where for each language L_i , there is a higher language L_{i+1} that contains a truth predicate $T_{i+1}(x)$ for L_i : $T_{i+1}(x)$ can "decide" all truths of sentences in language L_i . When he says "the various occurrences of 'is true' in the sequence are assigned increasing subscripts", he is referring to the

⁹⁰ Ibid., 7.

⁹¹ Kripke, "Outline of a Theory of Truth", 697.

truth predicates $T_{i+1}, T_{i+2}, \dots$. But Kripke thinks there is serious problem with this account.

“Surely our language contains just one word ‘true’, not a sequence of distinct phrases true_n ,

applying to sentences of higher and higher levels.”⁹² We can see this notion in Geach’s example:

J1, which says “Jupiter is round”, and J2, which says “That Jupiter is round is true”, could just as easily extend to J3, “That ‘Jupiter is round is true’ is true”, and so on. Geach’s complaint was that

if we use the correspondence theory of truth, J1’s truth corresponds to Jupiter being round, J2’s

truth corresponds to the correspondence of J1 to Jupiter being round, J3’s truth corresponds to

the correspondence of J2 to the correspondence of J1 to Jupiter being round, and so on. Kimhi

says we misread the fragment “thinking and being are the same” if we read it according to this

correspondence theory, or indeed “if one thinks it leaves a place for *any* account to which the

truth of thinking depends on something which is external to thinking.”⁹³ He suggests that “when

we talk of the facts of the world all we are talking about are true thoughts, in other words, that

what is the case is simply a thought that is true.”⁹⁴ What I want to suggest is that thinking and

being are the same in the same sense that flesh consents. When flesh consents, language, or pure

thinking, reaches all the way to meat, or pure being. The limit-event is where pure thinking finds

unity with pure meat and becomes consenting flesh.

I am staging a conversation between Kimhi and Kripke to tease out what exactly it means

to say there is logos in the flesh. In the preceding section, I used Dana Scott’s fixed point

semantics to define the limit-event, consent, flesh, and sexual assault. I used Scott’s semantics

because I was illustrating a point about ontology: that is, an account of the being of flesh. But

⁹² *ibid.*, 695.

⁹³ *Thinking and Being*, 7.

⁹⁴ *ibid.*, 8.

Kripke independently argued for a theory of truth based on fixed points, which uses almost exactly the same formal machinery. Kripke's analysis focuses on language and how it is that we assign truth values to sentences in a language. Thinking, *qua* language, and being, *qua* flesh, coincide at the moment of consent. When we pursue truth in thinking, we are pursuing consent in the flesh.

In Kripke's theory, there is a domain D and a pair of disjoint subsets of D : S_1, S_2 . For any sentence written as $P(x)$ where P is a predicate and $x \in D$ is a term, $P(x)$ is true for objects in S_1 , false for objects in S_2 , and undefined for objects in neither. Now Kripke is interested in the truth predicate $T(x)$, which operates according to a similar logic: S_1 has objects for which $T(x)$ is true, and S_2 has objects for which $T(x)$ is false. The difference between P and T is that P is any arbitrary predicate, whereas T is the predicate "is true". So we have a partial assignment of truth values to sentences, which $T(x)$ shows when interpreted as S_1, S_2 : S_1 contains those sentences that are true, and S_2 contains those sentences that are false. At the beginning, we start with $S_1 = \emptyset, S_2 = \emptyset$. The truth predicate $T(x)$, "is true", is totally undefined. But we apply our operator ϕ : we look at the sentences in the language and determine some of them to be true or false, and put them in S'_1 and S'_2 . For example, "Jupiter is round" can be a sentence in S'_1 . Now $T(x)$ where $x = \text{"Jupiter is round"}$, can be evaluated as true. Again we apply ϕ to S'_1, S'_2 to get S''_1, S''_2 . Kripke stipulates that ϕ be monotonic: recall the definition of monotonicity,

$$(S_1, S_2) \sqsubseteq (S'_1, S'_2) \Rightarrow \phi((S_1, S_2)) \sqsubseteq \phi((S'_1, S'_2))$$

Of monotonicity, Kripke says,

What this means is that if the interpretation of $T(x)$ is extended by giving it a definite truth value for cases that were previously undefined, no truth value previously established changes or becomes undefined; at most, certain previously undefined truth values become defined. This property — technically, the monotonicity of ϕ — is crucial for all our constructions.⁹⁵

ϕ maps to our operator F in Scott’s fixed point semantics, the “habit” that is the contraction of a contemplation. But what happens when ϕ is non-monotonic, as we have been discussing? What happens to the true and false sentences in S_1, S_2 when a non-monotonic operator ψ scrambles the truth values, when flesh is reduced to meat? If the only operator available is non-monotonic, there is no guarantee that a fixed point exists. If a non-monotonic operator becomes a habit one cannot achieve consent, the warmth of the limit-event. If sexual assault is a non-monotonic transformation that acts directly on the flesh, gaslighting or emotional abuse might be a non-monotonic transformation that acts on one’s beliefs about the world.

Be that as it may, there is a wealth of literature on “non-monotonic reasoning”. Non-monotonic reasoning, the archives of the Stanford Encyclopedia of Philosophy says, characterizes “*defeasible inference*, i.e. that kind of inference of everyday life in which reasoners draw conclusions tentatively, reserving the right to retract them in the light of further information”. The Encyclopedia gives the following example:

Suppose our knowledge base contains (defeasible) information to the effect that a given individual, Nixon, is both a Quaker and a Republican. Quakers, by and large, are pacifists, whereas Republicans, by and large are not. The question is

⁹⁵ “Outline of a Theory of Truth”, 703.

what defeasible conclusions are warranted on the basis of this body of knowledge, and in particular whether we should infer that Nixon is a pacifist or that he is not pacifist. ... The credulous reasoner has no reason to prefer either conclusion ("Nixon is a pacifist;" "Nixon is not a pacifist") to the other one, but will definitely commit to one or the other. The skeptical reasoner recognizes that this is a conflict not between hard facts and defeasible inferences, but between two different defeasible inferences. Since the two possible inferences in some sense "cancel out," the skeptical reasoner will refrain from drawing either one.⁹⁶

Confronted with the contradicting information that Nixon is a Quaker — who are pacifists — and also a Republican — who are not pacifists — the “skeptical reasoner” draws that the inference Nixon is a pacifist, and the inference that Nixon is a Republican, are both “defeasible inferences”, and will refrain from committing to either one. I would suggest that this opens up a gap between thinking and being. The skeptical reasoner is suspended, as it were, between two propositions. If the skeptical reasoner adopts this attitude towards all propositions, taking all inferences to be defeasible inferences, the skeptical reasoner will be non-committal, never believing in a proposition strongly enough to grasp it in the flesh. The skeptical reasoner cannot reach the fixed point. This is the less dramatic flavor of non-monotonicity: not as sexual assault, gaslighting, or emotional abuse but the attitude of a skeptic who does not believe in anything. Not non-monotonicity as something done to you, but something you do out of your own will. The uncanny resemblance of the skeptic to the liberal subject is surely not accidental: the liberal subject lives in a world without con/sensual being, without limit-events, without beliefs, in rape culture.

⁹⁶ Archives of the Stanford Encyclopedia of Philosophy, “Non-monotonic Logic”.

Kripke does not think ϕ is Scott-continuous, and thus dives directly into transfinite iteration to characterize the procedure of finding the fixed point. To understand how this point is relevant to our investigation, let's consider what Scott-continuity *means*, what it would mean for the theory of limit-events and for the theory of truth Kripke is drawing. The following is the definition of Scott-continuity:

$$F\left(\bigsqcup_{n=0}^{\omega} x_n\right) = \bigsqcup_{n=0}^{\omega} F(x_n)$$

Literally, this says that applying the operator after taking the supremum is equivalent to taking the supremum after applying the operator an infinite number of times. Using our Deleuzian vocabulary, we might say that repeating a habit after the moment of being of becoming that passes the test of eternal return is the same as the moment of being of becoming that passes the test of eternal return after repeating a habit an infinite number of times. But what does that mean? One way of thinking about this equation is that no sudden information, no sudden reversal, arises at the limit. Scott-continuity lets us use Kleene's recursion theorem to get to the least fixed point simply by applying the operator F over and over again. Let's take a look at that proof:

$$\begin{aligned}
x &= \bigsqcup_i F^i(\perp) \\
F(x) &= F(\bigsqcup_i F^i(\perp)) \quad \text{By definition of } x \\
&= \bigsqcup_i F(F^i(\perp)) \quad \text{by Scott-continuity} \\
&= \bigsqcup_i F^{i+1}(\perp) \\
&= \perp \cup \bigsqcup_i F^{i+1}(\perp) \\
&= F^0(\perp) \cup \bigsqcup_i F^{i+1}(\perp) \\
&= \bigsqcup_i F^i(\perp) \\
&= x
\end{aligned}$$

Notice that Scott-continuity allows us to swap $F(\bigsqcup_i F^i(\perp))$ with $\bigsqcup_i F(F^i(\perp))$. This is the

crucial step of the proof. In this swapping, instead of repeating the operator one last time after taking the suprema, we moved the operator inside of the suprema, and repeated it before taking the suprema. What this means is that the moment that passes the test of eternal return — the moment where time seems to burst forth, where all the accumulated infinitely repeated labor of habit explodes into harvest — is not qualitatively different from the other moments. Note the i can be any value, in fact needs to be able to be any value. With Scott-continuity we might as well take the suprema after every repetition of the operator.

By its existence alone, the lily of the field sings the glory of the heavens, the goddesses and gods — in other words, the elements that it contemplates in contracting. What organism is not made of elements and cases of repetition, of contemplated and contracted water, nitrogen, carbon, chlorides and sulphates,

thereby intertwining all the habits of which it is composed? Organisms awake to the sublime words of the third *Ennead*: all is contemplation!⁹⁷

The lily of the field sings the glory of the heavens “by its existence alone”: no glorious shattering of the limit in eternal return is required! It is by its existence alone, made of contemplated and contracted elements, by its habit of closing at night and blooming at dawn. If this is possible, one does not need to enter the demonic field of transfinite iteration. Why did Kripke not consider Scott-continuity? What happens when we apply Scott-continuity to Kripke’s theory of truth? Kripke’s theory cannot accommodate Scott-continuity, because “... is true” is a truth predicate that resolves at arbitrary stages. He uses this example: consider the sentence (a) Snow is white, (b) Some sentence printed in the *New York Daily News*, October 7, 1971, is true, (c) (b) is true. Now consider some person who does not know what “true” means. Kripke says “we may say that we are entitled to assert (or deny) of any sentence that it is true precisely under the circumstances when we can assert (or deny) the sentence itself.”⁹⁸ Under this idea, our person can say (a) is true, because he understands the sentence “snow is white” as long as it does not have the predicate “is true”. But he will still not know what (b) or (c) means, since they have the predicate “is true”. Now suppose that on the October 7, 1971 paper of the *New York Daily News*, “snow is white” is printed. Since our person was able to say “snow is white” is true, and “snow is white” was a sentence on the October 7, 1971 paper, our person will be able to say that (b) is true: “some sentence” is the sentence “snow is white”, and this sentence is true, as the person discovered just a step ago. Now, armed with this new information, he can say that (c) is true: he has been able to say (b) is true in the previous step, and that is just what (c) asserts. Notice that in

⁹⁷ *Difference and Repetition*, 99.

⁹⁸ “Outline of a Theory of Truth”, 701.

each step, we ascend from a proposition that did not have “is true” in it, to a proposition that said a proposition without “is true” is true, to a proposition that said a proposition “is true” is true. We kept tacking on another “is true”. Kripke’s theory of truth is explicitly designed to accommodate these types of truth predicates, as his explicit goal is to get past Tarski’s theory of hierarchy of language where only languages of a higher hierarchical level can have a truth predicate of a lower hierarchy. But do we really need this? Who among us, except possibly philosophers, utter sentences “ x is true” or “that x is true is true”? Kripke’s example seems to focus on an extreme case of the use of language, that of analytic philosophy. In this painstaking kind of language, transfinite iteration might be required, as Scott-continuity does not apply. But Kimhi might point towards an alternative: “in its veridical sense “is” means to be true or to be the case.”⁹⁹ So “ x is true” is redundant, in the sense that we can just say “ x is”. “That x is true is true” just collapses to “ x is is”, which should collapse to “ x is”. In the veridical sense of “is”, the need for the truth predicate $T(x)$ dissolves. Kripke’s transfinite iteration is needed because it thinks “the truth or falsity of a thought depends on something extrinsic to it— extrinsic to its logical identity as a thought.” But this “turns on the assumption that being true or false originally involves a dissociation of what is true or false from the activity of thinking or saying that such-and-such is or is not the case; or in other words, on a dissociation of the intrinsic propositional unity of veridical being from its veridical being or non- being.”¹⁰⁰ Kripke thinks this is wrong: logician John Burgess, discussing Kripke’s paper, says that he “emphasizes the possibility of the (1d) type, from which he draws the conclusion that it is hopeless to look for any intrinsic test for paradoxicality.”¹⁰¹ The (1d) type in question is “(1d) The only sentence on the blackboard in

⁹⁹ *Thinking and Being*, 3.

¹⁰⁰ *Ibid.*, 8.

¹⁰¹ Burgess, “Kripke on Truth,” 114.

room 101 is false.” It is somewhat difficult to see how Kimhi thinks such a sentence could be evaluated true or false, as he says it is a fundamental mistake to think “the truth of thinking depends on something which is external to thinking.”¹⁰² In particular, it is difficult to see how (1d) cannot help but be evaluated true or false according to a correspondence, namely, the correspondence to the sentence on the blackboard in room 101 being true or false. In the end, I think Kripke is proposing a theory of truth that holds under all kinds of bizarre situations such that we need to reach for the resources of transfinite iteration, while Kimhi is concerned with propositions of the more classical kind, such as “Helen is beautiful”, an example used six times in the book. In evaluating “Helen is beautiful”, we do not have to look at Helen, extrinsic from the thought. Helen of Troy is the very paradigm of a beautiful person. Still, I think there is something essential in Kimhi’s observation that to think the truth of a thought depends on something extrinsic to it rests on a dissociation of truth or falsity from thinking or saying that such and such is or is not the case. Kimhi quotes Wittgenstein on this point: “When we say, *mean*, that such-and-such is the case, then, with what we mean, we do not stop anywhere short of the fact, but mean: *such-and-such—is—so-and-so*.”¹⁰³ Of course, this is not the case when we equivocate or lie. As we will see later in the book, with the establishment of coinage, lying becomes normative — the nominal value and the intrinsic value of a coin just is a “lie” by the sovereign, an equivocation of the notion of value. This is a kind of split, a psychosis, which dissociates truth or falsity from thinking or saying that such and such is or is not the case. Only those paralleling the intensity of a Wittgenstein, who famously gave away his inherited fortune, can “not stop anywhere short of the fact, but mean: *such-and-such—is—so-and-so*.” Was

¹⁰² *Thinking and Being*, 7.

¹⁰³ Wittgenstein, *Philosophical Investigations*, 95.

Wittgenstein mad to give up his money? Or is the hoarding of money, the instrument of lies and equivocation, the psychosis which dissociates truth from saying such and such is the case? Either way, Kimhi and Wittgenstein seem to be saying that each utterance passes the test of eternal return. The suprema (the eternal return) is taken after each utterance (a habit). Kimhi's and Wittgenstein's is a Scott-continuous view of truth. The dissociation, on the other hand, leads Kripke to throw out the possibility of an intrinsic theory of truth, which necessitates transfinite iteration through the sentences. The sentence "The only sentence on the blackboard in room 101 is false" is a bizarre sentence, but it is also the sentence of the contemporary American condition: absurd instructions that reference other instructions, arbitrary demands from the police with the wherewithal to execute you, immigration agents storming your home on a technicality or not even a technicality. We need transfinite iteration because we live in a dissociated society that has dissociated truth and falsity from thinking or saying such and such is the case or not the case. This sounds like I am saying Scott-continuity is good and transfinite iteration is bad. But this is not what I mean. They are both methods to getting at the limit-event. What I am sure about is that transfinite iteration is more labor. The closure ordinal for the relevant transfinite iteration is ω_1^{CK} , the first nonrecursive ordinal; the closure ordinal for the relevant Scott-continuous operator is ω . This is a vast difference. While there are those forced into the demonic field by trauma, those who have no choice but to do the transfinite iteration, it would be ideal if we could all be like the lily, singing the glory of the heavens by our existence alone.

Kimhi, combined with Kripke, gives us another way to think why mathematics is ontology and what this would mean. Kripke's theory is about the truth of propositions: his truth predicate $T(x)$ assigns truth values to propositions p_i , which stabilize at the fixed point where the truth values no longer budge when operated on by ϕ . Our limit-event is a theory of being: the

body becomes progressively more “in touch with itself” with the repetition of a habit, a contraction of contemplation, which draws difference and becomes more and more a precise approximation of the flesh. At the fixed point of the limit-event, flesh becomes con/sensual flesh and may consent. Mathematics is about laws of thought. Set theory lays down axioms as where thought starts, and deduction rules (such as in first-order logic) as valid inferences thought can make. Here we have language (Kripke), being (our characterization of meat and flesh), thinking (mathematics), and what ties them all together, that thinking and being are the same (Kimhi). Thinking and being become one in con/sensual flesh in the same way linguistic propositions attain a fixed point of truth and falsity. Con/sensual flesh is a kind of being, but not just any kind of being. Con/sensual flesh is true being, being at its fixed point. It is not a category mistake to ascribe mathematics (thinking) to flesh (being) because thinking and being are the same. Mathematics describes laws of thought, and thereby being, where thinking and being find unity as logos in the flesh. Difference is difference between thinking and being, and to affirm the difference is to unite thinking and being. It is in this sense that sexual assault is a non-monotonic transformation, that the domain is the form of meat and flesh, that the limit-event is consent. But how does thinking and being find unity? What does it mean to say they are the same?

Kimhi says that “ p ” and “I think p ”, held in conjunction, is enough to deduce “I truly think p ”. The truth of “I think p ” does not depend on something beyond “ p ”. It does not, for instance, depend on the fact of p being the case in some state of affairs. This sounds like idealism, but it is not. Kimhi distinguishes four kinds of attitudes one can have about logic and psychology: (1) psycho-logicism, which reduces logic to psychology, or reduces “ p ” to “I think p ”; (2) logo-psychism, which reduces psychology to logic, or reduces “I think p ” to “ p ”; (3) psycho/logical dualism, which severs the two, such as in the case of Frege who says an

“assertion stroke” is needed to make “*p*” into “I think *p*”; and (4) psycho/logical monism, which Kimhi himself subscribes to. Psycho/logical monism says the difference between “*p*” and “I think *p*” is merely a *syncategorematic* difference. Kimhi defines categorematic and syncategorematic expressions: “A categorematic expression can be a component of a predicative proposition, whereas a syncategorematic expression cannot be a component of a predicative proposition.”¹⁰⁴ Examples of categorematic expressions include “heals”, “poisons”, “exemplifies”, “falls under”, and so on: as predicates, they are parts of predicative propositions. An example of a syncategorematic expression is “A heals B”. This expression cannot be a component of a predicative proposition: it is complete on its own, is a complete determination. Kimhi says “syncategorematic differences between propositions or judgments, in contrast to categorematic differences, do not correspond to any bit of reality.” (16) Kimhi says the difference between “I think *p*” and “*p*” is syncategorematic, and so is the difference between “*p*” and “not *p*”. Later he says that a “*p*” can occur as a self-identifying display or a non-self-identifying display. In the case of “*p*”, it occurs as a self-identifying display. For example, he says, a sample turquoise color is self-identifying in that the color sample just is that color. On the other hand, when I make a gesture of swimming in the air, this is a non-self-identifying display, because while it displays the act of swimming, it is not swimming itself. In the case of “not *p*”, it occurs as a non-self-identifying display.

One has to sit with the magnitude of this assertion. In “not *p*”, “*p*” is displayed, but it cannot be carried out. To say “not *p*”, one has to have the power necessary to display “*p*” without being consumed by it. Critique often reproduces the very structures it seeks to critique, since to critique the structures, it has no choice but to display it, to mention it. To negate something

¹⁰⁴ *Thinking and Being*, 16.

properly, to *dissolve* it, one must be more powerful than that thing. Frege believes such a negation is basically impossible:

How, indeed, could a thought be dissolved? How could the interconnection of its parts be split up? The world of thoughts has a model in the world of sentences, expressions, words, signs. To the structure of the thought there corresponds the compounding of words into a sentence; and here the order is in general not indifferent. To the dissolution or destruction of the thought there must accordingly correspond a tearing apart of the words, such as happens, e.g., if a sentence written on paper is cut up with scissors, so that on each scrap of paper there stands the expression for part of a thought. These scraps can then be shuffled at will or carried away by the wind; the connection is dissolved, the original order can no longer be recognized. Is this what happens when we negate a thought? No! The thought would undoubtedly survive even this execution of it in effigy. What we do is to insert the word 'not,' and, apart from this, leave the word-order unaltered. The original wording can still be recognized; the order may not be altered at will. Is this dissolution, separation? Quite the reverse! it results in a firmly-built structure.¹⁰⁵

For Frege, negation does not “dissolve” a thought. Even if we took a thought written on a piece of paper and sliced it up with scissors and knives, to fly the scraps in the wind, the thought would “survive even this execution of it in effigy”. One gets the sense that Frege *wanted* negation to be able to do such a thing: there is a certain delight when he imagines a thought being cut up into scraps, carried away by the wind. But he quickly negates this delight: “Is this what happens when

¹⁰⁵ Frege, *Logical Investigations*, 378.

we negate a thought? No!” Still this negation — “No!” — does not, true to his assertion, dissolve the delight. But Kimhi successfully negated Frege, and his theory of negation has been dissolved.

8. INTERMISSION

Liberal subjects want to believe the obligatory power of language gives them the power of autonomous choice. If the subject could have obligated the other not to touch her by speaking to them, this means she had the autonomous choice. But more grimly, this leads to the survivor's guilt that had we done something differently, had we said something, we wouldn't have been sexually assaulted. But for the logic of linguistic refusal as choice to be consistent, it would "have to go the length of breaking the skull of"¹⁰⁶ the perpetrator: for it is not the normative force of language but its imagined causal force we are thinking of when we imagine its power to stop sexual assault. I say I am uncomfortable; you assault me anyway. I say no; you assault me anyway. Or, I cannot say anything; I am your employee. I am your student. I am your child. Choice sneaks back in when we imagine the causal force of language, the nagging thought had we done otherwise we wouldn't have been assaulted. And perhaps that is true, if we had broken the skull of the perpetrator. In doing so, we would have committed a physical crime, but prevented a metaphysical crime. But we often do not have the choice to break skulls.

You object: the issue is not the fact that saying no doesn't always, causally, stop sexual assault. Of course it doesn't. The issue is that proceeding as one did before, despite hearing the word "no", is what constitutes sexual assault. I, of course, agree that A forcing himself or herself on B despite A saying "no" to B is sexual assault, but I do not think that this *constitutes* sexual assault. What I cannot abide by is the singular force we want to attach to the power to say "no", as if that word has causal powers. In giving it such singular force, we abdicate the would-be assaulter of all responsibility and make the assailed walk an impossible line. If linguistic activity

¹⁰⁶ Hegel, *Phenomenology of Spirit*, 339.

is sufficient for consent, saying “yes” implies you consented. Then the shared property of consent might be implied to exist, or not implied to exist, by linguistic activity. The space of possibilities becomes covered by the utterances yes/no; if yes, the consent exists; if no, the consent does not exist. The hangover of this liberal metaphysics of consent is the persistent nagging had I said no, I could have caused the sexual assault not to happen. Of course one may also imagine had I broken their skull, the sexual assault could not have happened; but how *easy* an act it seems to say no, that the fact one did not say so becomes a choice one said yes!

You say: but is this not why we need affirmative, ongoing, enthusiastic consent? More liberal jurisdictions say consent exists if and only if “yes” was uttered, that is, linguistic activity is necessary and sufficient for consent. I agree consent must be “affirmative”, but linguistic activity is not necessary nor sufficient for consent. In other words, I can consent without saying “yes”; nor does me saying “yes” mean I have consented. Nor is the picture we want “ongoing” consent as such, where A asks B if he or she should go on, and B says yes, and A asks again in one minute, and B says yes, repeatedly until A stops when B says no. As for “enthusiastic”, this is the real meat of the contemporary discourse that must be preserved. Enthusiasm, coupled with restraint, is what consent is all about.

Restraint is the technic of consent. Just as a great poem is written not in excess but in restraint, consent is had in restraint. This is not because both are linguistic activity, as Lacan seemed to believe. The following is a poetry performance I enacted with the poet and novelist Emmanuelle Pierrot in a venue in Seattle, Washington, where we ask each others’ consent:

“No.” – I say.

“No?” – She says.

“No.”

“Yes.”

“Yes?”

“No.”

“No..”

“No?”

“Yes.”

“Yes?”

“Yes.” – We both say yes.

“Yes.” – We both say yes.

“Yes.” – We both say yes.

And kiss.

In another venue, in New Orleans, the performance goes a different way:

“No.” – I say.

“No?” – She says.

“Yes.”

“No.”

“Yes?”

“No.”

“Yes.”

“Yes.”

“No..”

“Yes?”

“No.” – We both say no.

“No.” – We both say no.

“No.” – We both say no.

We turn away.

The performers negotiate consent, not in the juridical way of reaching an agreement through public reason, but in bursts of affirmation and refusal. Knowing when to refuse and when to affirm is the essence of restraint. Consent is a dance in the middle of the minefield of differences that cannot be affirmed. Consent is produced spontaneously in the dance as cases of the limit-event. Individual reasoning cannot be a basis for consent, for consent is not in the realm of representation.

What is interesting about the liberal doctrine of consent is what it seeks to hide, what the legislative activity is meant to say “no” to: not the anxiety it leads to infinite regress, not the anxiety of vacuity, not even anxiety about their own bodies, but the anxiety their bodies are implicated in blackness. This anxiety, of course, often explodes into racist rage. What we must not lose sight of is the theological character of lynching: is there carnal knowledge? Is carnal knowledge intellectual intuition? Is racist rage rage at intellectual intuition? If lynching is a metonym for crucifixion, how many Jesuses have died, how many Second Comings deferred?

The South is crucifying Christ again

By all the laws of ancient rote and rule:

The ribald cries of “Save Yourself” and “Fool”

Din in his ears, the thorns grope for his brain,

And where they bite, swift springing rivers stain

His gaudy, purple robe of ridicule

With sullen red; and acid wine to cool

His thirst is thrust at him, with lurking pain.¹⁰⁷

For Glissant, the departure of the slave ship is “the moment when one consents not to be a single being and attempts to be many beings at the same time.”¹⁰⁸ But the slave, of course, was forced onto the ship. Can one be forced to consent? Of course not, but isn’t that what happened? It is good that we can be many beings, but what happens when one is forced to be not only those beings one wants to be but also the beings of some one would really rather stay separate from? The cruel logic would seem to dictate that the raped must save the rapist: “The really terrible thing, old buddy, is that you must accept them... You must accept them and accept them with love, for these innocent people have no other hope.”¹⁰⁹ And we have been saving them, which is not the same as forgiving them: sometimes, we think the only thing we might need to forgive them is for them to just glimpse the depth of what we’ve been through, what a path we had to go through to defuse the mines, quarantine the ones we’re not sure about, even if it’s not for us, because when a mine explodes, when another metaphysical crime is committed, it’s ah shit, here we go again, another (white) soul goes to hell and we’re the ones who have to deal with it. This is why Kant is endearing: the terrifying freedom he glimpsed, the “tumultuous derangement,”¹¹⁰ which he seeks desperately to bury with his starry heavens and his moral law, in fact installs as

¹⁰⁷ Cullen, “Christ Recrucified.”

¹⁰⁸ Glissant, “Conversation with Édouard Glissant Aboard the Queen Mary.”

¹⁰⁹ Baldwin, “A Letter to my Nephew.”

¹¹⁰ *Stolen Life*, 32.

the condition of possibility of his critical philosophy – he is doing all that because he has glimpsed that absolute depth, all right.

9. LIBERAL CONSENT

The liberal doctrine of consent is juridical. I consent to receive hormones by signing a form. I therefore give up my right to sue you for the consequences. We consent to have sex with each other by individually saying “yes” to sex. Therefore we take it as given that we did not violate each other. The parodic limit of this juridical doctrine was stumbled into by an entrepreneuring spirit who engineered a blockchain where participants in a sexual encounter would record their consent. What is wrong with the liberal doctrine of consent? For one, consent is not necessarily linguistic. What is consensual is what is sensed together. The liberal doctrine of consent imagines consent as two individuals sharing a common property, the property they instantiate through linguistic activity. In this way, it forgoes any possibility of consent that does not reach the realm of the linguistic. But much of consent lies in the non-linguistic realm, from which linguistic consent may or may not bubble up. Saying “yes” is neither necessary nor sufficient for consent. It is insufficient for consent, because one may say yes without consenting. It is unnecessary for consent, because one may consent without saying yes. In our era, where sex is more often suspect than not – and for good reason – we hold it to be self-evident that saying “yes” is necessary for consent. There are certainly good reasons for this idea, and I want to defend my position at length. We feel like saying “yes” *ought* to be necessary for consent. Violaters often say they surmised consent in a survivor who did not say “yes”. What does it mean to consent without saying “yes”? The only way such consent is possible is when the two consenting beings are undergoing infinite co-computation of a composition of each others’ habits, and saying “yes” just did not happen to be part of these habits. But the case of a violater claiming they surmised consent is a case where there was no infinite co-computation of a composition of each others’

habits. Is it possible the violater *thought* there was such an infinite co-computation? Let's put the violater on trial and give them the best possible defense. The infinite co-computation is in the regime of being; the thinking of the violater is in the regime of, well, thinking. If A thought there was an infinite co-computation of consent, but B did not think there was, what is happening? If A was right, there was in fact an infinite co-computation of consent; but consent is the unity of thinking and being; therefore, if A and B were in consent, B must have thought what was the case inasmuch as they were in consent; therefore, B must have also thought there was an infinite co-computation of consent. But by assumption, B did not think there was consent as such.

Therefore, A cannot be right. One cannot *think* there was consent when there was in fact not. The structure of consent forbids it. This does not require one to believe as Kimhi seems to that thinking and being are always in unity. It requires one to accept that thinking and being are in unity insofar as one consents. This is just another way of saying that computation is the being of becoming when the computation at hand is the taking of the supremum, the moment of eternal return. The taking of the supremum, its infinite co-computation, is consent. *In* consent, thinking and being are in unity, because computation as thinking, which is all computation, and computation as being, which is computation as the taking of the supremum, coincide at this moment. Is this an obscene metaphysical exercise for an urgent practical, ethical, and legal question? Let's summarize what the upshot of the argument is. The upshot is that the violater is metaphysically refuted. A does not even know what consent is if A thinks B consented, and B does not think so. But how was A supposed to know if B consented or not? Is it possible that A was in error? If A is a Kantian subject, it is possible that A was looking for rational clues in the way B was acting and taking those as data for a verdict that B consented. This does not exonerate

A. Rather, it implicates Kantian ethics by pointing out the terrible harm it can cause. A Kantian subject can be a rapist, even while, even because of, following the moral law. For the moral law, respect for the other, is precisely what prevents them from truly consenting and authorizes the view of consent-as-finite-verdict.

Sometimes, saying “yes” and consent coincide. In his philosophy of affirmation, Nietzsche says “if our soul did but once vibrate and resound with a chord of happiness, then all of eternity was necessary to bring forth this one occurrence—and in this single moment when we said yes, all of eternity was embraced, redeemed, justified and affirmed.” In *this* sense of saying “yes”, this “yes” is the “yes” of affirmation in eternal return, and it is in fact exactly what consent is. But the liberal juridical idea that saying “yes” is necessary for consent is the idea that the linguistic utterance “yes” is necessary. But the linguistic utterance is a specific thing we do at a specific point in time. *When* is it necessary to say “yes”? If consent is an infinite co-computation, sensating-together, it seems we have to keep saying “yes” an infinite number of times. This seems absurd, but we might say that we do have to keep saying “yes” over and over, if not an infinite number of times only because we die, after which presumably other rules apply. Taking inspiration from this idea, we might say that saying “yes” is necessary before each time one has sex. There are good reasons for this idea. What could it hurt to say “yes” each time? I am not interested in defending, as some reactionaries might, the idea that some mystical eros is lost because of the insistence of saying “yes” each time before sex. Rather, I want to press on the obverse side of this insistence. What happens to the survivor who said “yes,” that is, the person who said “yes” and was nevertheless sexually violated? If saying “yes” is necessary for consent, how do we think of the person who says “yes” but does not consent? We must say that thick

consent overrules thin consent. A person may say “yes” as a bare linguistic utterance without affirming the moment in eternal return. The linguistic utterance need not coincide with the affirmation as taking of the supremum, the limit-event. In the comedic mode, the Scott-continuous case, where “when we say, *mean*, that such-and-such is the case, then, with what we mean, we do not stop anywhere short of the fact, but mean: *such-and-such—is—so-and-so*”¹¹¹, the linguistic utterance “yes” does coincide with the affirmation as taking of the supremum into the fixed point. The linguistic utterance “yes” coincides with the limit-event. But when the person uttering “yes” is in the tragic mode as a subject, or in the tragicomic mode undergoing transfinite iteration, “yes” does not coincide with the thick kind of affirmation. For the person undergoing transfinite iteration, saying “yes” might be like the empty laugh, or it might be like the hearty laugh, a taking of the supremum at some limit ordinal into a local, but not global, fixed point. For the Kantian subject, saying “yes” is an output after finite rational deliberation. With this “yes” the Kantian subject imagines an *obligation* instantiating. The Neo-Kantian philosopher Korsgaard describes what it means for language to obligate:

If I say to you, “Picture a yellow spot!” you will. What exactly is happening? Are you simply cooperating with me? No, because at least without a certain active resistance you will not be able to help it. Is it a causal connection then? No, or at least not merely that, for if you picture a pink spot you will be mistaken, wrong. Causal connections cannot be wrong. What kind of necessity is this, both normative and compulsive? It is *obligation*.¹¹²

¹¹¹ Wittgenstein, *Philosophical Investigations*, 95.

¹¹² Korsgaard, *The Sources of Normativity*, 96.

But does language obligate us? Consider a thought experiment fitting the contemporary moment. If a large language model tells you, “Picture a yellow spot!”, what exactly is happening? Are you cooperating with it? No, because at least without a certain active resistance you will not be able to help it. Is it a causal connection then? Perhaps: if you picture a pink spot, you might be wrong, but in the eyes of whom? The large language model cannot tell you you are wrong for picturing the pink spot. Imagine a world where everyone is dead except you. You talk to your large language model to pass the time. Over time, you might start picturing a pink spot when the large language model tells you to picture a yellow spot. And you would not be wrong. For you to be wrong, there must be normative stakes, a normative standard on what is wrong and right. If there were not one but two people left and you pictured pink instead of yellow at the other person saying “picture a yellow spot”, this is wrong because you are becoming incommunicable, developing a private language. So you are obligated not to picture yellow instead of pink. But large language models do not care if you are incommunicable. A large language model is not the kind of language-user that uses language in a normative way. Large language models cannot obligate us in the way other language-users can, because they cannot consent. The kernel of wrongness here is in incommunicability. When you become incommunicable you stop being consensual with the other person. We might stretch this idea to say that to become incommunicable in this sense is to develop a private language, which Wittgenstein showed was impossible, but which may be possible as a case of madness. To picture yellow instead of pink when “pink” is uttered is to fall outside the community’s use of the word “pink”. For what is a word but a contraction of contemplation, a habit said out loud, an invocation of a habit into another being? With words we contemplate, but we cannot contemplate without the ceaseless contractions of

contemplations of others that are words. Is contemplation calculation? Can one contemplate nothing? If one can contemplate nothing, and calculation is computation is being, contemplation is not calculation. Calculation cannot calculate non-beings, or nothing; contemplation can contemplate nothing. How does one contract a contemplation of nothing? One contemplates nothingness with mass. How does one contract this contemplation, into what habit? One creates a word and ties it to a post. Wittgenstein says “when we speak of someone's having given a name to pain, what is presupposed is the existence of the grammar of the word "pain"; it shews the post where the new word is stationed.”¹¹³ This is why one cannot simply write a poem about pain by letting the pain bleed onto the page.

Is language sufficient for the task of establishing con/sensual being? With language, do we simply obligate the other, or do we enter into con/sensual being with them? My answer is that only certain kinds of uses of language can be con/sensual, something similar to but ultimately diverges from what feminist philosopher Manon Garcia calls an “erotic conversation”. Manon wants to overcome the liberal idea of consent as a contract or formal agreement, but she wants to preserve the Kantian idea of autonomy and respect.

Another way [of conceiving consent] is implicit in the very etymology of “consent”—*cum sentire*, literally to *feel with*. Feeling together can be an avenue toward respect for the other. The deep, genuine promise of consent lies in the possibility of an eroticism that builds equality through the sexual relationship instead of presuming equal and independent partners. Here consents are exchanged rather than given unilaterally. In this view of consent, what matters is

¹¹³ Wittgenstein, *Philosophical Investigations*, 257.

not isolated individuals using each other toward their potentially incompatible private ends but rather the relation built through sex, whether this relation lasts minutes or years.¹¹⁴ ...

In the face of all the difficulties imposed by patriarchy, it seems that the solution to good sex is to be found not in the exchange of consents once and for all but in a conversation between consenting subjects about their consent. In such a framework, consent is no longer to be understood as a formal agreement reached all at once but as the manifestation of the sexual autonomy of the partners, which must occur continuously during the sexual encounter. This brings us closer to the Kantian idea that taking into account the consent of the other is inseparable from treating the other not only as a means but also as an end. Such treatment, as we have seen, implies respect for and attention to the other, their present situation, their limitations, and the power differentials that may exist between the other and oneself.¹¹⁵

It is good to recover the etymological meaning of consent as *cum sentire*, *feeling-with*, which I have preferred to refer to as *sensating-together* because “sensation” has a more structural relationship with “sense” and “together” has a meaningful relationship with “paraontological”.¹¹⁶ And consent is surely “inseparable from treating the other not only as a means but also as an end”, but this does not go far enough. Consent is not about Kantian autonomy or Kantian respect

¹¹⁴ Garcia, *The Joy of Consent*, 190-191.

¹¹⁵ *The Joy of Consent*, 201.

¹¹⁶ “Together” is a paraextensive predicate in that coextensive predicates predicate what is the same, while paraextensive predicates predicate what are alongside one another but are not the same. For instance: “one can think ontology and paraontology together” is a paraextensive proposition. So is “you and I sensate together”.

for the other. Consent certainly accompanies respect in the general sense of the term “respect”. But when I respect someone in a Kantian way, as an autonomous Kantian subject, I maintain a certain distance from them. This cannot be reconciled with our idea of consent as the abolition of this autonomous subject and distance. With consent I do not draw a limit but give you access to the beyond of the limit. I let you take the suprema of my flesh and transform me. With consent we become limit-events together. The case to be worked out is where two persons undergoing transfinite iteration, or where one person is undergoing transfinite iteration and one person is on the Scott-continuous path, consent. In the first case the two may undergo the transfinite iteration together, each time taking the supremum into a shared limit ordinal. In the second case, which is more interesting, the person undergoing transfinite iteration might adopt the other’s Scott-continuous habits. This does not require both to be at the fixed point. Rather, it is a path to the fixed point. To adopt another’s habits, which are contractions of contemplation, one must contemplate the other. If lovers adopt each others’ habits, it is because they contemplate each other. If one can adopt another’s habits by reading a book, it is because in following their contemplations, one contracts their contemplations.

10. SOVEREIGNTY AND THE UNIVERSAL MACHINE

When discussing consent, there is an urgent political feminist question. Do sex workers consent to have sex with their clients? How can our formalization help us think through this problem? We may think through the issue by drawing a relation between sex work and blackness. When Fred Moten says blackness is the universal machine, he is getting at something like how black people can simulate white people, but white people cannot simulate black people. One area this shows up is in code-switching: while black people can fluently code-switch into whiteness, white people cannot do the opposite. If one thinks that all machines can be formalized as Turing machines, one can think of blackness as the universal Turing machine.¹¹⁷ If blackness is the universal Turing machine and black people have blackness, black people are uncomputable in the same sense that any nontrivial semantic property of universal Turing machines are uncomputable by any specific Turing machine, since universal Turing machines can execute arbitrary Turing machines. When sex workers simulate their clients just as blackness simulates whiteness, sex workers are acting as universal Turing machines, and by that fact, they are uncomputable. Notice that we are already in the territory of uncomputability, higher than computable-2. We should generalize to higher, transfinite Turing degrees of uncomputability, giving the word “machine” a more generalized definition than “Turing machine”, and perhaps that would help us understand what it means for blackness to be the universal machine: blackness is in the realm of definable but uncomputable machines. Perhaps this is the vengeance of those who have been defined by philosophy as undercomputational, as spouting so much nonsense: the weaponization of definability over computability, the power to define, fiat

¹¹⁷ Moten makes an oblique reference to this in his chapter “The Touring Machine”.

sovereignty that cares little for that which is, all that can be crammed into the word “is”. Perhaps that is all that aesthetic judgment is, a proposition that cannot be proven but can be defined, not by decree but by the sovereign logic of blackness in sex work and sex work in blackness as political theology. This, of course, requires a radical redefinition of the word “sovereignty”, one that does not care for the state. Rather, we may use the older definition of sovereignty as dominion in the biblical sense of the word, the power to give names. If to name something, to define it, is to have dominion over it, sex workers simulate their clients by naming their desires and keeping track of their non-continuous kinks with definitions. Art is the space between us¹¹⁸; to affirm that art is to affirm what is between us, namely, difference, and aesthetic judgment is the judgment whether something is unaffirmable or affirmable difference. But there is an important way in which sex work and blackness do not necessarily coincide, and it is in the fact that sex work is often done in the flesh, flesh-to-flesh contact, whereas flesh-to-flesh contact is not necessary for blackness. Flesh is not just the fixed point but the chain of approximations leading up to it, which is what memory is. Deleuze says habit undergoes passive synthesis and memory undergoes active synthesis. “The active synthesis of memory may be regarded as the principle of representation under this double aspect: reproduction of the former present *and* reflection of the present present.”¹¹⁹ In active synthesis, memory is represented as “reproduction of the former present *and* reflection of the present present”. The former present is the chain of approximations before the application of the operator, the habit which “constitutes the general possibility of any present”.¹²⁰ The present present, which is “only the entire past in its most

¹¹⁸ Mutu, *I am Speaking, are You Listening?*

¹¹⁹ Deleuze, *Difference and Repetition*, 106.

¹²⁰ *Ibid.*, 106.

contracted state”¹²¹, is what flesh is. Con/sensual flesh is memory affirmed in eternal return. If labor requires skill in the part of the laborer, and sex work is labor, the skill of sex work is in the active synthesis of memory, but by making flesh into the medium of active synthesis. The sex worker’s flesh contemplates the client’s flesh, but the client’s flesh does not contemplate the sex worker’s flesh. It is as if the sex worker’s flesh is a treatise that the client cannot understand: they cannot assign the correct truth values to the propositions in the sex worker’s flesh. Pleasure from a kink, a discontinuity, is pleasure from that which one does not understand, the enjoyment of being incorrect. On the other hand, the sex worker’s flesh can assign the correct truth values to the propositions in the client’s flesh. In flesh-to-flesh contact, the sex worker makes the client’s flesh into an object of signification. But this signification is not representation, signification that falls under computability. It falls under definability. Sex is the limit of signification, where representation fails. Sexual pleasure is the feeling of affirming this limit. Sex work is the temporary affirmation of a limit at a different limit ordinal from one the client is under. If the client is not at a fixed point, sex work may bring them to one. They may not bring them to the fixed point where all truth values are assigned, but they can bring them to a set that is a superset of the client’s propositions which have correct truth values assigned. This is because the sex worker applies their operator on the client. None of this implies that the client is enacting non-monotone transformations on the sex worker, though it also does not imply that the client is not enacting non-monotone transformations. That is all there is to say about that. If sex workers are subject to sexual violence at disproportionate rates, this is not because of the work of sex work — on the contrary! — but because of a society where thinking and being are dissociated and

¹²¹ Ibid., 107.

forcefully, temporarily united with money. Is the dissociation, or the money, the cause of sexual violence? We must take sex workers at their word: “I needed money.” The figure of the rapist john obscures the metaphysical crime. Money is the formal (in the Confucian sense, not the Aristotelian sense)¹²² cause of sexual violence. That is to say, insofar as we contemplate money, we are contemplating, and the formal structure of contemplation is exhausted by definability. Money might not be the real (also in the Confucian sense)¹²³ cause of sexual violence, but it is the formal cause. That is to say, insofar as we conceive of money wrongly, money equivocates, and insofar as money equivocates, it formally causes sexual violence. To articulate what money is is to destroy the formal cause of sexual violence. When we use money *rightly*, there cannot be sexual violence. Obviously, sex workers should have money so that they do not have to do sex work. Nobody should *have* to do sex work. This is what makes sex work distinct from other kinds of work: for other kinds of work, someone *has* to do the job. For sex is not in the realm of labor, which is another application of the operator in the present. Sex is in the realm of affirmation, which is the taking of the supremum. Deleuze says “in all three syntheses, present, past and future are revealed as Repetition, but in very different modes. The present is the repeater, the past is repetition itself, but the future is that which is repeated. ... The first synthesis concerns only the content and the foundation of time; the second, its ground; but beyond these, the third ensures the order, the totality of the series and the final end of time.”¹²⁴ The present is the computation of the operator, the past is the flesh, and the future is the fixed point. The future exists in the same sense that consent, rightfully conceived, exists. Consent is the end of time, of

¹²² *yi*

¹²³ *qi*

¹²⁴ *Difference and Repetition*, 122.

being itself. Sex work manifests a kind of consent where the sex worker epistemologically eclipses the client. Sex workers know their clients' habits, their operators. This knowledge is the knowledge of sex work. A sex worker can apply a client's operator on the sex worker's own flesh, thereby simulating their client. The client feels as if they are applying their operator on the sex worker. The sex worker is applying it to themselves, and laboring to make it coincide with the client's feeling of applying the operator: their feeling of the present. "It is always Eros, the noumenon, who allows us to penetrate this pure past in itself, this virginal repetition which is Mnemosyne. He is the companion, the fiancé, of Mnemosyne. Where does he get this power? Why is the exploration of the pure past erotic?"¹²⁵ Sex work, properly conceived, is the encounter of noumena with epiphenomena. Eros, the noumenon, encounters the Mnemosyne of the clients, but not any Mnemosyne: the asinine kind, the kind that sins in not knowing what they do. Their "present" is the application of their operators simulated by the noumenon: epiphenomena. On the other hand, when Eros meets his true fiancé, when Christ betroths the church, there is the third synthesis, the final end of time. But Christ is not a sex worker, or would prefer not to be. To be the universal machine is an act of *kenosis*: one cannot simulate the world without emptying oneself. Rather we should say: Christ is *no longer* a sex worker.

Christ is sovereign! Christ was the universal machine. Blackness is the universal machine. Is blackness necessary and sufficient for sovereignty? Is aesthetic judgment, uncomputable propositions declared by definition, all that sovereignty is? This is a seductive idea, but the temptation must be resisted. Christ is *no longer* the universal machine. For the sovereign, law and desire coincide. The law, here, is not law of the state but the law of ontology,

¹²⁵ Ibid., 111.

mathematical theorems, the symbolic order properly conceived. Desire, which is grounded in the flesh, obeys mathematical laws when thinking and being are in unity in con/sensual flesh. “The ground is no more than a condition by default, one lost in sin that must be recovered in Christ.”¹²⁶ The fixed point under ω is the condition by default, lost in non-monotone transformations, recovered in the assignment of every truth value at the fixed point through transfinite iteration. Every aesthetic judgment of Christ is correct, because he defined it to be so, and being cannot reach the definitions.¹²⁷ Christ is black insofar as he was crucified.¹²⁸ If blackness is the universal machine capable of assigning every truth value, blackness is sufficient for sovereignty. But it is not necessary, for Scott-continuous operators do not need blackness: Christ did not have to be crucified. Universal machines are not necessary. The universal machine, in contemplating itself, falls into a spiral because it constitutively cannot reach a fixed point insofar as it is the universal machine: what must it simulate? *Itself*. But it must simulate *everything else*. So it cannot simulate *itself*. A gap opens up, not a lack, but an emptying: *kenosis*. It is useful that the universal machine can apply every possible operator, but not every operator should be applied. Operators that haunt the past need not surface to the present and apply

¹²⁶ Ibid., 123.

¹²⁷ “Sovereign is he who decides on the exception”, says Schmitt. But the decision here is an ontological one, whereas Christ’s definitions are paraontological. That is to say, while Schmitt’s sovereign decides on what is the case, being, the computable, Christ defines, or rather has defined, what is beyond the computable. All of Schmitt’s exceptions are computable. This is also the difference between Badiouan event and Schmittian exception: Badiou’s events are uncomputable. Badiou’s subject may be faithful to Christ’s definitions, but Christ probably wants them to abolish themselves at his return. Because the paraontological is about unaffirmable difference, unaffirmable difference is the distance between some of us, and that distance is art, paraontological judgments are aesthetic judgments. Christ’s dominion is an aesthetic one, a thousand years of art. “Only a God can save us”, says Heidegger. True to Heidegger’s thoughts on art, God saves us with art. Still, Heidegger remained fundamentally confused about the difference between the ontological and the paraontological, and continuously tried to subsume the latter into the former.

¹²⁸ Cone, *The Cross and the Lynching Tree*.

themselves in the present. The present can stay in the fixed point of his own operators, his own homey habits contracted by his own contemplations: or, his lover's contemplations...

If the state committed the metaphysical crime of crucifixion, must we not say that every state should be dissolved? We may read Hegel's articulation of the state as that which seeks to bring the definable but uncomputable under the umbrella of computable-1 augmented with oracles made out of monetary policy. Mathematically, the state cannot do that, but empirically, it can: there is the force of mathematics that is the law, properly conceived, but there is also the force of weapons, money, and technological surveillance. But we may rearticulate our political statement: the ideal polity is where the law of mathematics and the law of the polity are in con/sensual unity. Such a law of the polity is the flesh of the body politic. It is when the body politic has con/sensual flesh. Ritual, as conceived by Confucius, may very well be a contraction of sex work: in bowing to each other, we bring ourselves to a fixed point under a shared limit ordinal. In a ballroom, we vogue to bring our flesh to the same fixed point. Money must not, cannot bring us to a fixed point. One must say hello to the shopkeeper before buying any goods. The state is interested in a strategic disequilibrium, a rational policy to avoid the fixed point, which it knows is its dissolution. As Drumm has shown, banks and monetary policy articulate self-fulfilling prophecies as modern day oracles. If the oracle cannot be the sovereign, if "it is not really metaphysically permissible for the king to find out what the future will be"¹²⁹, this is because knowledge and power to act in the world are supposed to be unified, as Wang Yangming says in his doctrine of 知行合一. This is what the sovereign does insofar as he is a scholar, and it is

¹²⁹ Drumm, *The Difference That Money Makes*, 40.

another articulation of the unity of thinking (knowing) and being (acting). But the state, and the world we live in, is a dissociated one without such unity. Drumm notes that he followed

the hypothesis that we might make some progress on understanding the constitution of sovereignty in monetary systems along the lines of “tragedy without catharsis.” If the relationship between monetary authorities and money markets are structured by paradoxes of self reference, which might either converge into unanimity or collapse into a hall of mirrors, then this relationship is one of permanent strategic disequilibrium — in the context of which all apparent equilibria merely constitute temporary solutions or a kind of unspoken détente between permanently warring parties.¹³⁰

If monetary systems are “tragedy without catharsis”, if this is the tragic Kantian subject taken to its limit as the World-Spirit, what we need is an angle to turn tragedy into tragicomedy.

“Apparent equilibria” are the computable-1 consents, which are not fixed points but temporary agreements that have no mathematical right to exist. How do we take monetary systems from tragedy to tragicomedy and, in there, true catharsis? Should we take away the state’s power to dictate monetary policy, to prop up oracles that maintain disequilibrium? If we take Plato’s idea that every person is a city-state seriously, what sort of “monetary policies” are enacted by each person? Many people follow this monetary policy: to make a stable income at a stable job. Still others follow this monetary policy: to get money as it comes, to live day by day. Or: to accumulate billions of dollars. Still others get into debt. These are all monotone habits. The monotone habit of one’s monetary policy, applied to two moments of one’s wealth, always leads

¹³⁰ Ibid., 9.

to two moments where the order is preserved. But this habit cannot reach the fixed point, because money cannot be conceived as an infinite totality of which one can take the supremum. It is a tragedy without catharsis. What if what we need is a non-monotone habit, the necessary ingredient of tragicomedy? We still need to take the supremum to get past a limit ordinal. But what if that's not the point of money — what if the point of money is that it is supposed to mirror flesh? What if the point of money is to let knowledge turn into action, to put thinking and being in unity? We, by and large, do not live in a world of con/sensual flesh. To live in such a world is to live in Heaven on Earth. This is why the monotone accumulation of money does not mirror our world, and perhaps non-monotone transformations on our money might mirror our world, and its flesh in transfinite iteration, more rightly. Monotone accumulation of money is tragic; non-monotone transformations on money might be tragicomic, might be an ingredient towards the end of time. “Consider the subprime debtor as guerilla”¹³¹ against the capitalist system of accumulation, says Moten. The story of Wittgenstein giving away his sizable family inheritance, most of which to his siblings, three of which committed suicide, is horrific, but it is also tragicomic. For money can never be conceived as an infinite totality, but our lives can, and money is a very specific plot device. “Give it all to God and let Jesus reimburse you”, says Ye. If money stays monotone, it may soon become the imperative to make more, always, a moral law. But most of our lives are lives of transfinite iteration, and we need the law with which we approach money to be an *absurd* law befitting the absurdity of the non-monotone transformation we went under. For the non-monotone transformation was formally (*yi*) caused by money, and we can grasp this form by really (*qi*) causing non-monotone transformations on our money.

¹³¹ Moten, *The Universal Machine*.

When there is a wrong *yi*, *qi* can rectify the *yi* by prodding at it. We must give money away *for no reason*, get into debt *for no reason*, spend money *for no reason*, make money *for no reason*. Not always, but each of those things can make the story funnier. The story of money will never be strictly comical, and (non)believing it can be comical is resigning oneself to its tragedy. The story of money *can* be tragicomic, and that is because money is not flesh but *affects* flesh. If non-monotone transformations have already been done in our flesh, for money to not do so dissociates money from flesh. But money and flesh should not be dissociated. Money should closely mirror flesh, though it can never be flesh, for it cannot be an infinite totality. That is to say, the money one has should affect one's flesh, for like it or not, in our tragicomic world, money is how flesh interacts with flesh. I pay money for lunch and the cook moves his body to cook me food. Money must not become computable-1 consent, for flesh must not interact with other flesh in computable-1 consent. When I pay money for lunch I should be in computable-2 or uncomputable consent with the cook. One way to do this is to experience being a cook oneself. This is why, when considering a hypothetical scenario where one does sex work for a certain amount of money, rejecting the idea categorically is a conversation-killer. When one goes broke, one can later tell tragicomic stories of being broke, and when one becomes a billionaire, one has not “made it” into a somehow comedic end — a billion is nil compared to infinity — but one can tell tragicomic stories of being a billionaire. We need to *play* with money, to stop treating it with tragic gravitas but tragicomic amusement.

11. EPIPHENOMENOLOGY OF THE METAPHYSICAL CRIME

All those who consent are noumena. Both tragicomic and comic paths can lead to consent. Tragedy can be turned into tragicomedy in that phenomena can become noumena; but as for the metaphysical sinners, the epiphenomena, how can we push our hatred toward them beyond the limit? It is not possible to hate a sin; we must hate the sinners. Is drawing a boundary hate? No. Is madness sufficient for hate? No. Is violence hate? Perhaps. Violence, understood as physical impact on flesh, might annihilate the flesh. Is annihilation of a metaphysical sinner's flesh a proper hatred towards the metaphysical sinner? What is a metaphysical sinner's flesh? A metaphysical sinner's flesh is constituted by the operations of non-monotone operators. A metaphysical sinner may commit any number of non-monotone operators on their own flesh, and the order of information of their flesh will not be preserved from each of the operators. A metaphysical sinner is epiphenomena because they continuously apply non-monotone operators on their own flesh, which are not computations and not definitions. They have *no being*. If they ceased to apply the non-monotone operators they would by definition not be metaphysical sinners. But is that possible? For them to change their habits, which are contractions of contemplation, they would need to contemplate. Can they contemplate? Can words cause them to contemplate, or must we annihilate their flesh? What does it mean to annihilate flesh? To annihilate flesh is to turn it back into zero information, $\perp$, to erase all traces of their memory. But even supposing this is possible through some non-criminal non-monotone transformation, it does not undo the metaphysical crime: the non-monotone transformation enacted upon one's flesh has left a trace, and deleting the source will not delete the trace. Another meaning of annihilating flesh is to cause the operators that constitute it to stop operating. That is to say, annihilating the

flesh of a metaphysical sinner means to cause their non-monotone operators to stop operating. A dead man no longer acts on his heinous habits. And that is that. And that may be necessary, if one cannot get away from the metaphysical sinner, as was the case in Haiti. But one may be able to get away and do something else. Must we then forgive the sinners? No. What is it like to be a metaphysical sinner? Do metaphysical sinners experience? They surely use language. Noumena, phenomena, epiphenomena and now large language models (which are not epiphenomena) all have this quality: they use language. What is language? Is a word a contraction of contemplation in a different flavor from a habit? A word is a contraction in the *n*th degree of a sensation or sensations. At its limit, a word denotes a sense, which is a contraction of sensation; one can see this in the literal sense, since “sensation” contracts into “sense”. At the other limit, a word is sensation. Artificial signs are closer to sense, and natural signs closer to sensation. It seems that metaphysical sinners are capable of using words at the former limit, but not so much at the latter limit, as words of sensation are always-already co-sensation, consent. This book is an act of service to the metaphysical sinners who can use words as sense but not as (con)sensation — the furthestmost contraction of contemplation on consent, on con/sensation, into sense, abstract formalism, so that those who cannot consent but can nevertheless follow sense and deduction can be guided to consent. Metaphysical sinners cannot consent, but neither can tragic subjects. The difference is that metaphysical sinners confound the *yi* of consent as sensation through the *qi* of consent as sense. Their crime is *qi* effecting *yi*, *qi* manifesting without *yi*. Yi Hwang says *qi* manifests and *yi* rides on it, or *yi* manifests and *qi* follows. Yi I says only *qi* manifests, but the reason for *qi*’s manifestation is *yi*. In neither case is considered the possibility where *qi* manifests but *yi* has nothing to do with it. The *yi* of consent can be described with fixed point semantics; its

qi, which is nondual with its *yi*, is consent in the flesh. But what happens when *qi* manifests where *yi* has nothing to do with it, which is what happens when the *qi* of the metaphysical crime manifests? Traumatic flashbacks happen for no reason: *qi* manifests without *yi*. A consenting lover's touch cannot cause the memories of the crime; but the memories of the crime may manifest following the lover's touch, without the touch being the reason. It is not *yi*, not God's calculation, but the empirical world, *qi* dissociated from *yi*, that cause the memories to manifest. What is the empirical world? What is the empirical? Is a table noumena? Is a bullet noumena? If a bullet were phenomena, it would not be able to kill God. God might see himself get hit by a bullet, but he would walk into a different, continuous realm where the wound is resolved. Christ could resurrect because the crucifixion happened in the phenomenal world. Did Christ have traumatic flashbacks of the crucifixion, a sexual violation? Did Christ feel phantom nails in his wrist? Are phantom nails in a wrist a sensation that refuses contraction into words? Phantom nails in a wrist are epiphenomena: they are all that the metaphysical sinners are. If tragic subjects resolve into tragicomedy, can epiphenomena ascend into tragedy, then to tragicomedy? The injunction: to forgive those who know not what they do. What, then, do we do to those who did what they did while knowing exactly what they were doing? cannotWhat does it mean to forgive epiphenomena? Is forgetting epiphenomena a condition of possibility of forgiving it? One must not pick at a scab. If much of the world's ontological wealth and power are controlled by epiphenomena, even despite Christ's dominion over the paraontological, what is to be done is for the crimes to be forgotten so that the question of forgiveness does not arise. "We do not repeat because we repress, we repress because we repeat."¹³² To forget is not to repress. When we

¹³² *Difference and Repetition*.

forget, we do not repeat. The flesh *exactly does not remember the non-monotone transformation*, though that is not to say it has forgotten it: memories become forgotten, and the non-monotone transformation was never synthesized into memory at all. What is remembered, pressed into flesh, is the moment immediately before and after the transformation. That is to say, given n_i, n_j where n_i is the flesh before and n_j after the non-monotone transformation, one cannot synthesize the two in active contemplation to grasp the operator, for contemplating is finally an act of consent done in words rather than habits. To grasp the non-monotone operator in contemplation, we would have to grasp its non-consensual sensation. We may be able to grasp the operator as abstract formalism, as *sense*, as we are wont to do. But we cannot grasp it as *sensation* or its many contractions in the nth degrees. We would like to remember what happened at the moment so that we may grasp it and overcome it. But what is remembered, or probably incorrectly inferred, is not the process of the transformation but the operator of the transformation. Phantom nails in a wrist are not sensations of nails in a wrist, but the self-application of an operator incorrectly inferred to be what happened in the nailing. But there is little reason to attempt to find that non-monotone operator. One might want an inverse to nullify the operator: but unless the operator is bijective, the inverse does not exist. The incorrectly inferred operator is what is repeated. The epiphenomena of the world want the operator to be repeated so that they may continue to have a semblance of existence, or more precisely, a second-order effect of a semblance of existence. And they are not to be underestimated: they control much ontological wealth and power. What we need is a strategy for ignoring them. They cannot be defeated in thought cleanly, once and for all. They must be ignored so that they exist as little as possible until they become massless nothingness. One must carefully strategize: how do we get their money to

lead a generative life while giving them as little existence as possible? The obverse side of using money for no reason, sometimes, is not using money for very specific reasons, sometimes. One must not buy things or use gifts from epiphenomena. Things from epiphenomena repeat the epiphenomenon's operators in the sense that using something with a brand logo of a company complicit in genocide, while not strictly making one complicit in genocide, may cause the company's habits, or incorrectly inferred habits, to repeat. Phenomena, phenomenal things, can be diagonalized up to ω into noumena; epiphenomena cannot. One should not remind oneself of memories of sexual violence in an attempt to heal from it.

12. THE COMIC FORCE OF FILIAL PIETY

They fuck you up, your mum and dad.

They may not mean to, but they do.

(Philip Larkin)

In *Coldness and Cruelty*, Deleuze sketches a theory of how humor and irony relate to the law. In his theory, irony is “the upward movement ... toward a transcendent higher principle”, or “to a principle that overrides it”. Humor is “a downward movement from the law to its consequences”, the “downward movement ... which seeks to reduce the law to its furthest consequences.”¹³³ Deleuze identifies sadism with irony and masochism with humor. This is all downstream of what he calls the classical conception of the law, which found expression in Plato, and the modern conception of the law, which found expression in Kant. In Plato, “the law is only a representative of the Good in a world that the Good has more or less forsaken.” (81, *ibid.*) There is the Platonic idea of the Good, of which the law is only a shadow. For Plato the law is based on the absolute Good. With Kant we get the pure form of the law in the categorical imperative: “the moral law is *the law*, the form of the law and as such cannot be grounded in a higher principle.” (83, *ibid.*) With Kant we do not know what we are guilty of, even though we are sure we are guilty. Deleuze sees Kafka’s work as illustrative of a what life lived under such guilt looks like: “the man who obeys the law does not thereby become righteous or feel righteous; on the contrary, he feels guilty and is guilty in advance, and the more strict his obedience, the greater his guilt. This is the process by which the law manifests itself in its

¹³³ *Coldness and Cruelty*, 88.

absolute purity, and proves us guilty.”¹³⁴ *The more strict his obedience, the greater his guilt.*

What to do under such a law and such guilt, when the very move we feel we *ought* to make – to follow the law – implicates us further into the pit? When the Kantian subject, under such stress of guilt, undergoes metamorphosis and becomes a Freudian subject, the law turns Oedipal. Freud shows that the law operating as pure form is “the result of the renunciation both of the object [of the law] (the mother) and the subject [of the law] (the father).”¹³⁵ The renunciation of the mother and the father are required to obtain the law operating as pure form. In falling into the Oedipus complex we give ourselves over to the realm of myth. Myth takes over our unconscious and dictates our behavior as a law.

Here I should like to do a Confucian intervention. There is a famous story of a psychoanalyst who went to China and told a Chinese man about the Oedipus complex. The Chinese man laughed like it was the funniest thing he had ever heard. And in a certain sense, the story of Oedipus is very funny, and not in a cold or cruel way. The story of Oedipus is classified as a tragedy. But “a spurious sense of tragedy dulls our intelligence; how many authors are distorted by placing a childishly tragic construction on what is more often the expression of an aggressively comic force! The comic is the only possible mode of conceiving the law, in a peculiar combination of irony and humor.”¹³⁶ Overcoming the Oedipus complex, overcoming both the irony of sadism and the humor of masochism, means laughing at the story of Oedipus like it is the funniest thing you have ever heard. How was the Chinese man able to laugh at it?

¹³⁴ Ibid., 84.

¹³⁵ Ibid., 85.

¹³⁶ Ibid., 86.

My answer is that Confucianism is an elaborate philosophy and practice to avoid the Oedipus complex, and the technic of this practice is called filial piety.

In the *Myungshimbogam*, a Korean compilation of important Confucian teachings for schoolchildren, there is a section on *xiao*, or filial piety. The section is short, consisting of six short sayings. I want to call attention to the second saying:

子曰 孝子之事親也 居則致其敬 養則致其樂 病則致其憂 喪則致其哀 祭則致其嚴

The Master said: as for the child of filial piety, in ordinary life, they exhaust their reverence; in providing for them, they exhaust their joy; in their falling ill, they exhaust their worries; in mourning, they exhaust their sadness; in ancestral rites, they exhaust their dignity.¹³⁷

In each case the phrase turns on 致其, "to exhaust"; filial piety is a practice of exhaustion. I want to read Deleuze's idea of exhaustion as he laid out in *The Exhausted* into this sentence. For Deleuze, "the exhausted can no longer possibilate". His method in *The Exhausted* is to exhaust certain kinds of language until they cease to be language at all, each time pushing the language beyond its limits. What happens when we exhaust our reverence, our joy, our worries, our sadness, our dignity towards our parents? What does it mean to exhaust an affect? If Deleuze's strategy can be applied analogously, to exhaust an affect means to push it beyond its limits to transform it into something else. It is where affect exists in the being of becoming, an emotion that passes the test of eternal return. When I mourn my parents and exhaust my sadness, my sadness is not an attitude of sadness, a fleeting feeling of sadness, or a general mood of sadness.

¹³⁷ *Myungshimbogam* (明心寶鑑, 孝行篇)

My sadness is a crushing wave, a sobbing for days on end, something psychology would pathologize as bipolar or major depression. According to Confucian rites, seonbi were expected to mourn their parents for three years upon their passing, living in a tent next to their grave, eating only enough to subsist. This rite is an expectation of the exhaustion of sadness. And with this, we have what I would call the metaphysics of emotion in Confucian thought which does not reduce emotion to subjective psychological states, Spinozan affects, Heideggerian mood, or Hobbesian definition. Emotion is understood as foundational for rites, and rites are understood as transforming emotion into an infinite intensity. If Deleuze's theory is that desire is what produces, Confucian theory is that not only desire, but any emotion whatsoever – though it is debated whether the four sprouts belong to these, or only the seven emotions do – is what produces. In the Freudian/Lacanian idea of the subject – and I think Deleuze did not ultimately escape this, despite his quixotic attempt in *Anti-Oedipus* – desire is desire of the lack. The law is repressed desire, and the subject is structured around this lack. But there are at least seven metaphysical emotions according to Confucian metaphysics, of which desire is only one. How did emotions get flattened into desire? In Freudian and Lacanian theory, desire might be said to be the only *metaphysical* emotion. Other emotions like anxiety are only secondary effects of repressed desire. Sadness is pathologized as depression; joy is pathologized as hysteria. When I say we must abolish the subject, I am saying we must begin to feel emotion in infinite intensity. Love is just a prototypical example of emotion that has infinite intensity, enough to abolish the subject. While I am also interested in romantic love, I want to focus on the kind of love that features in filial piety, because I want to talk about the state.

Filial piety is a theory of how emotion is exhausted, and it has a peculiar relation to myth. In Confucian theory of the state, Yao and Shun are the mythical emperors of a bygone utopia. Yao and Shun are sages who rule by intellectual intuition. The state is ruled by sages by intellectual intuition, like parents caring for their children with an intuitive grasp of the children's needs. But the intuitive grasp does not come "for free" (though it does not come at "a price" either). Emotion is pushed to infinite intensity at the taking of the suprema at the limit-ordinal, at the moment of eternal return. But emotion is constituted on memory. A being without memory cannot have emotion, and this is one reason why large language models cannot have emotion. Emotion is a kind of memory taken to its limit. When the infinite iterations, the trace of the limit-event, form an emotion for the flesh, to take the supremum of these is to push the emotion beyond its limits to transform it into something else. *When it is transformed, there is consent.* Two people become truly con/sensual when they push their emotions against each other beyond the limit. The cold and cruel tragedy is that so often emotions are pushed exactly towards the limit but still so safely, tragically, contained inside the subject. This is the kind of thing that happens in intense, but not infinitely intense, fights among couples like in *Marriage Story*. But what happens when emotions are pushed beyond a limit and transform into something else? What happens when two people argue with each other for hours on end, only to find that they have been transformed and understand each other better? There is reconciliation, there is a little joke poking fun at each other for having been so angry, a new, fun story to be told to one's grandchildren. There is the tragicomical. There is a *new myth*. Myths are, fundamentally, stories we tell our children. Myths are pedagogical. Myths teach us another operator F_j , another way of getting to the limit-event, of consent. Myths bind us via ritual: ritual is the technology that makes

these myths more than private, that make them communicable and metabolized into the social body. Filial piety is the practice of creating new, communal myths by pushing emotions beyond the limit, socially sanctioned and repeated as ritual. And is it not time to get past the 2500-year old myth of Oedipus, which locks us into a Freudian subject, guilty of every obedience?

13. MONEY IN THE JOSEON DYNASTY

If the liberal state is constituted on the wrong kind of consent, can there be a state founded on the right kind of consent? To put my cards on the table, I do not think a state would exist if everyone was in consent. But we may discuss a state governed by a specific kind of consent, the intellectual intuition which Mou Zongsan speaks about. To motivate our discussion, consider the following paragraph from Colin Drumm that gives an account of the entanglement between money and the state:

Because of the fact that the democracy splits with its erstwhile oligarchical allies and does so by threatening to backslide into tyranny, tyranny and democracy look the same from the point of view of oligarchy, and the dividing line between oligarchy and its indistinguishable others is constituted by the fact that tyranny and democracy are both societies of the coin, while the oligarchy is not.¹³⁸

We are curious about the idea that tyranny and democracy are both societies of the coin, while oligarchy is not. The Joseon dynasty (1392-1910) is an interesting comparative case study. Joseon was founded on aristocratic principles, and slid into an oligarchy towards the 19th century. I am using the definitions of aristocracy and oligarchy as Plato defined them: aristocracy as rule of the best, oligarchy as the rule of the rich. The Joseon dynasty did not develop widely used coinage until late in the dynasty, around the late 17th century, when the sang-pyeong-tong-bo (상평통보 常平通寶) gained wide circulation.

¹³⁸ Drumm, *The Difference That Money Makes*, 421-423.



Sang-pyeong-tong-bo.

The sang-pyeong-tong-bo was made of copper. Silver or gold currency was almost never minted in the dynasty and never gained wide circulation. This might mean citizenry of Joseon did not have an outside option: even if you left for China or Japan, there is only so much copper you can melt to gain meaningful political power. But the sang-pyeong-tong-bo is less a purely arbitrary valuation by a tyrant as it is a ritual and an argument, which are so often one in Confucian thought. What was pressed on the coin was not an image of the sovereign, but the words “a precious thing (寶) that is circulated (通) always and righteously, (常) fairly and flatly (平).” This is the promise of a natural law.

Now for some facts. Sang-pyeong-tong-bo weighed around 1 don (don literally means *money*, and is equivalent to 3.75g). According to a study¹³⁹, the coins had 83.6% copper in the late seventeenth century around when it started to be minted in 1678, but this content dropped fast as copper imports from Japan almost halved by 1697. Copper content was in the high 60 percent range by the eighteenth century. The rest was mostly lead.¹⁴⁰ With copper bought from Japan for 1 nyang of silver (1 nyang = 100 mun), 1,000 coins of 70% copper could be created. In

¹³⁹ Yu, “The Seigniorage of the Sangpyeong Tongbo and Its Uses” (상평통보의 주전이익과 활용).

¹⁴⁰ Choi, “A study on the manufacturing method of the ancient coins, Sangpyeong Tongbo in Korea.”

Qing China and Japan, around 800-1,000 such coins were exchanged for 1 nyang of silver. But in 1679 Joseon, 400 sang-pyeong-tong-bo were exchanged for 1 nyang of silver. The government took a very high seigniorage. In the following chart are some records of the seigniorage rates, with the date in the first column and the seigniorage rate in the second column. The sources are the *Seungjeongwon ilgi*, or the Journal of the Royal Secretariat, and the *Geumwiyeungdengnok*, the Journal of the Capital Garrison.

〈표 1〉 상평통보의 주전이익 변화 내역

연도	주전 이익률	전거	비고
1679	50%	『승정원일기』 14책, 숙종 5년 9월 18일	
1723	거의 없음	『승정원일기』 30책, 경종 3년 5월 2일	구리가격의 급등이 주된 이유
1731	50%	『승정원일기』 79책, 정조 3년 1월 9일	호조
1727	20%	『승정원일기』 35책 영조 3년 11월 5일	은전비가의 조정을 통해 이익을 산출. 自今以後, 銀一兩價以錢二兩爲定, 錢二兩利, 則以什二生殖爲定, 則公私用錢, 似無不便之端, 錢則決不可罷
1731	50%	『승정원일기』 79책, 정조 3년 1월 9일의 기록에 의거	호조
1750	37.5%	『승정원일기』 58책, 영조 26년 11월 23일	
1751	60%	『금위영등록』 권54, 임신 5월	주전기간 짧음(3개월)

We should keep in mind that the Joseon monarch was not particularly powerful. The high seigniorage was not a symptom of an unsustainable tyranny but, I argue, a consequence of the fact that the coin was ritualized as an expression of a natural law.



Sang-pyeong-tong-bo die.

The sang-pyeong-tong-bo was minted with a die resembling a tree, with the coins like leaves. I claim that the minting of the sang-pyeong-tong-bo in its curious die was the ritualization of the coin as a natural object. In Confucian metaphysics, nature (xing) provides the natural law (yi); it is not a leap from nature to always and righteous (常), fair and flat (平). The people naturalized the coins by calling them leaves (잎). Nature is a totality, if an open totality. There was no outside option, but this was taken to be nature, not tyranny. But to explain how the coin was conceptualized as a natural law, we should consider the history of the dynasty.

The Joseon dynasty's patriline was fraught, perhaps by intelligent design. The philosopher-architect of the dynasty, Jeong Do-jeon (courtesy name Bong Hwa-baek), wanted to weaken sovereign power by distributing it among the scholar-aristocracy. It is said that Bong

Hwa-baek was fond of saying Zhang Liang, the minister, and not Liu Bang, the first emperor of Han, was the one who founded the Han dynasty; moreover, that he was the Zhang Liang of Joseon. Bong Hwa-baek believed enlightened ministers, less the king, should govern. Bong Hwa-baek opens his treatise on political economy with a quotation from *The Book of Documents*, a Chinese classic:

Emperor Yao (堯) appointed Shun (舜) as minister.

The Book of Documents (Shujing) says:

“Reverently, he made the Five Canons (五典) beautiful, and thus they were well observed.

He installed Shun as minister, and Shun brought order.

He received the feudal lords at the gates of the four quarters, and the gates of the four quarters became harmonious.

He entered the Great Foothills (大麓), and even fierce winds, thunder, and heavy rain did not lead him into confusion.”¹⁴¹

Shun is the successor to Yao in the legendary pre-dynastic period of the Three Sovereigns and Five Emperors. Shun abdicates the throne to Yu, a waterworks engineer who successfully controlled the flood of the Yellow River. But Yu does not abdicate his throne to a minister or engineer: he passes it onto his son. Thus the Xia dynasty begins, which is widely seen as a tragedy. My view is that Bong Hwa-baek cited this text in his book to showcase what he believed was the ideal solution to the problem of succession: not patrilineal heritage, but the voluntary abdication of the throne from enlightened king to enlightened minister. While Bong Hwa-baek

¹⁴¹ Jeong Do-jeon, *Writings to Guide Political Economy* (經濟文鑑), 1.

was probably not suggesting that the king abdicate his throne to him, his next best solution seems to have been a perpetual enlightened governance of the ministers as the sovereign patriline continues, technically ruling but largely irrelevant.

The first king of Joseon, Yi Seong-gye, was an ally and a friend for life, and considered himself a military man not versed in statecraft. Thus, Bong Hwa-baek was free to carry out his program of enlightened aristocratic governance. But the problem of succession would be the problem that would lead to his demise. Yi Seong-gye has seven sons from two successive queens: his first wife, Queen Sinui of Han, and his second wife, Queen Sindeok of Kang. Han begets six sons and Kang begets two. Han's sons are well in their twenties and thirties, while Kang's sons are teenagers, at the time Yi Seong-gye is looking to appoint a Crown Prince. But seeking a weaker sovereign, Bong Hwa-baek allies himself with Kang's second son, the youngest of all, Yi Bang-seok. Yi Bang-seok is just ten years old when he becomes the Crown Prince at 1392 with Bong Hwa-baek's influence. This will be something of a recurring theme in the Joseon dynasty: the king will often be very young at the time he is crowned, and the Queen Regent allied with ministers will be the de facto rulers, often with a healthy dose of nepotism. Not that that happened in this case. Bong Hwa-baek is killed when Han's fifth son, Yi Bang-won, throws a coup. Yi Bang-won kills his half-brothers, the Crown Prince and Kang's other son, and isolates his father in his chamber. Now Yi Bang-won does not immediately install himself as king, nor does he make himself the Crown Prince. He makes his older brother Yi Bang-gwa, the second son of Han, the Crown Prince. Yi Bang-won knows the delicacies of the politics of succession, and he does not want people to think he threw a coup against his own father and killed his half-brothers for the throne. He needs an alibi. Yi Bang-gwa has no personal aspiration

to be king, and knows Yi Bang-won holds all political power. After two years in power, he abdicates the throne to Yi Bang-won. Yi Bang-won rules for 18 years. The firstborn of Queen Wongyeong of Min, Yangnyeong, becomes Crown Prince in 1404, but is deposed in 1418 for reasons of insufficient scholarly and princely behavior. The third prince of Min, Chungnyeong, is made Crown Prince roughly a month after the deposal. Chungnyeong is remembered as Sejong the Great, widely considered the greatest king of Joseon, who, among other things, created Hangul, the Korean alphabet. Sejong rules for 32 years.

I could go on about the 23 other kings of the Joseon dynasty, but by the first four kings, a theme emerges: the problem of succession was fraught in Joseon. In the first four kings I illustrated, the first, Taejo Yi Seong-gye, became king through a revolution; the second, Jeongjong Yi Bang-gwa, became king against his better wishes as a political pawn; the third, Taejong Yi Bang-won, became king through a bloody coup against his own father; and the fourth, Sejong the Great, became king as a result of something like meritocracy. Of 27 kings of the dynasty, only 8 were firstborn sons with all the legitimacy that genealogical status comes with, and only 5 of those were over fifteen years old when they ascended to the throne. Perhaps Bong Hwa-baek laughed all the way to the afterlife, knowing he had planted a seed that would weaken the sovereigns, a necessary condition for his program of governance by enlightened aristocrat ministers.

Bong Hwa-baek's vision perhaps meets its zenith at the time of Jungjong (reign 1506-1544) with the rise of the neo-Confucian scholar Jo Gwang-jo. As the leader of *sarim*, or the Forest of Scholars, Jo Gwang-jo stands opposed to the Hungu material elite, the ones with vast amounts of land and wealth procured as recognition for their family's contribution to King

Sejo's coup against the young nephew King Danjong (1453). In 1519, Jo Gwang-jo's proposal is approved by the king, formally stripping the recognized contributor titles from three-fourths of the Hungu. The Hungu do not sit idly by. They take revenge on Jo Gwang-jo and the *sarim* in the *gi-myo-sa-hwa*, or the Calamity of Scholars at the Year of Gi-myo, known in the anglophone world as the Third Literati Purge. In a rare display of disheveled despair, Jo Gwang-jo is said to have entered the interrogation site drunk out of his mind. He is shortly sentenced to death, and numerous *seonbi* are killed or exiled to the countryside. The *sarim* limps on, but splits into two: the *dong-in* (Eastern faction), led by Yi Hwang (1502-1571), and the *seo-in* (Western faction), led by Yi I (1537-1584). Yi Hwang and Yi I have philosophical differences around *yi* (理) and *qi* (氣), which we should examine in more detail.

Reason is often translated as *yi* (理) in a philosophical context. Energy is often translated as *qi* (氣). Yi Hwang and Yi I differed in their view of the Four Beginnings and Seven Emotions, and this became a perennial debate of neo-Confucian Joseon scholars. The Seven Emotions were first written down by Kong Qui in the Book of Rites: joy (喜), anger (怒), sorrow (哀), fear (懼), love (愛), hatred/aversion (惡), desire (欲). The Four Beginnings were defined by Mengzi: heart of compassion (惻隱之心), heart of shame (羞惡之心), heart of modesty (辭讓之心), heart of discernment (是非之心). These correspond, respectively, to benevolence (仁), righteousness (義), ritual (禮), and wisdom (智).

Let us examine Yi Hwang and Yi I's arguments in more detail.

천하에 이(理) 없는 기(氣) 없고 기 없는 이 없다. 사단(四端)은 이가 발(發)해
기가 따르는 것이요, 칠정(七情)은 기가 발해 이가 타는 것이다. (사단 이발이

기수지 四端 理發而氣隨之, 칠정 기발이이승지 七情 氣發而理乘之) 따라서
기가 따름이 없으면 발현할 수 없고, 기에 이가 탐이 없으면 이욕(利欲)에 빠
지므로 금수(禽獸)가 된다. 이것은 바꾸지 못할 정한 이치이다.

There is no *yi* without *qi* and no *qi* without *yi*. In the four beginnings, *yi* manifests
and *qi* follows; in the seven feelings, *qi* manifests and *yi* rides on it. Therefore, if
qi does not follow, [the four beginnings] cannot manifest, and if *yi* does not ride
on *qi*, one falls into greed and becomes a beast. This is a principle that cannot be
changed.

Yi Hwang argues for two propositions: 四端 理發而氣隨之, 七情 氣發而理乘之. For the four
beginnings, *yi* manifests and *qi* follows; for the seven beginnings, *qi* manifests and *yi* follows. So
Yi Hwang believes that in some cases, *yi* manifests and *qi* follows, whereas in some cases, *qi*
manifests and *yi* follows. Yi I does not believe this. Yi I argues that only *qi* manifests and *yi* only
follows: 氣發而理乘之.

대저 발하는 것은 기이며 발하는 까닭은 이이니, 기가 아니면 발할 수 없고,
이가 아니면 또한 발할 까닭이 없다. (氣發而理乘之)

Generally, what manifests is *qi*, and the reason it manifests is *yi*. If it is not *qi*, it
cannot manifest, and without *yi*, there is no reason for it to manifest.

What do these metaphysical debates matter? Cashed out politically, Yi Hwang's theory separates
the sovereign with the people. The sovereign is a manifestation of *yi*, the four beginnings; the
people are a manifestation of *qi*, the seven feelings. As the four beginnings are unambiguously
good and the seven feelings are only contingently good, the sovereign's rule is morally good. For
Yi I, only *qi* manifests, and both the four beginnings and seven feelings are manifestations of *qi*.

The sovereign is not a manifestation of *yi*, for *yi* does not manifest. Both the sovereign and the people are manifestations of *qi*. This weakens the justification for the sovereign.

Followers of Yi I, the Western faction, maintain their faction for a long time, whereas followers of Yi Hwang, the Eastern faction, split into the Southern faction and the Northern faction. This time, the split is based on the anxiety of patrilineal legitimacy, succession, and an alleged treasonous coup.

The 14th king Seonjo (1567-1608) is the nephew of the 13th king Myeongjong (1545-1567). This is the first time a nephew, not a direct descendant from the inaugural king Taejo, becomes a king. Seonjo's reign is said to have been saturated with anxieties about patrilineal legitimacy.

In 1589, there is the largest political purge of the Joseon dynasty: the Gichuk Oksa, based on allegations of a treasonous plot. More than a thousand implicated people are killed, and the alleged leader of the treasonous plot, Jeong Yeo-rip, commits suicide only to be dug up, his head, legs, and arms cut off, and passed around the nation for everyone to see. Jeong Yeo-rip said 天下公物說: the world is public property without an owner, and 何事非君論: whoever one bows down to, that is the king. In modern historiography, Jeong Yeo-rip is sometimes considered the first political thinker of Republicanism in Joseon, often compared to Oliver Cromwell. Jeong Yeo-rip was also ideologically flexible, first following Yi I's school then switching to Yi Hwang's school. But it is difficult to see what his thoughts were, for he left behind no political tract.

The Gichuk Oksa split the Eastern faction into the Northern and Southern faction: the Northern faction believed the allegations were fabricated and believed the sovereign's power

should be restricted, whereas the Southern faction believed the sovereign's power should be extended. The Northern faction splits again into the Big Northern faction and the Small Northern faction, based again on reasons of patrilineal legitimacy.

The 15th king of Joseon Gwanghaegun (reign 1608-1623) is the second son of concubine Kongkim Kim of the 14th king Seonjo (1567-1608). Gwanghaegun is appointed the crown prince at the start of the Imjin War (1592-1598), and proves his competence by effectively leading a second wartime government. But after the Imjin War, Seonjo begets a son, Yeongchang, from Queen In-mok, a primary wife, not a concubine. Seonjo, and a the Small Northern faction, want to make Yeongchang the crown prince, but dies when Yeongchang is just two years old. Gwanghaegun takes the throne with the support of the Big Northern faction. Gwanghaegun deposes his stepmother from Queen Dowager status and kills Yeongchang when he is just seven years old. This becomes the justification for Gwanghaegun to be deposed in 1623 with king Injo's (1623-1649) coup. The Big Northern faction is annihilated, and the Small Northern faction fades into irrelevance, absorbed into the Southern faction.

The problem of Gwanghaegun and Yeongchang was that between choosing a king based on merit and proven ability in wartime, a state of exception, versus choosing a king based on patrilineal legitimacy. The problem of patrilineal legitimacy is not a metaphysical argument to be won, but where the metaphysical crosses over into the political. The *sarim*, despite their many calamities, could claim moral and metaphysical victory. Such as it is, Jo Gwang-jo, Yi Hwang and Yi I are enshrined in the Munmyo, alongside Kongzi: the highest honor there is for a scholar. But when it comes to patrilineal legitimacy, there can be no such claim to victory. Gwanghaegun is remembered as a dishonored king with distinctly inferior ancestral rites. What interests us is

the problem of patrilineal lineage crossed with the problem of distinguishing things and their simulacra.

The one problem which recurs throughout Plato's philosophy is the problem of measuring rivals and selecting claimants. This problem of distinguishing between things and their simulacra within a pseudo-genus or a large species presides over his classification of the arts and sciences. It is a question of making the difference, thus of operating in the depths of the immediate, a dialectic of the immediate. It is a dangerous trial without thread and without net, for according to the ancient custom of myth and epic, false claimants must die.¹⁴²

If *yi* and *qi* are one, simulacra is all there is, where *yi* is the Platonic form, *qi* is matter and difference. If *yi* and *qi* are distinct, things and their simulacra are distinct. The Eastern faction, who believed they were distinct, therefore fell into the perennial problem of distinguishing things and their simulacra, that is, finding out the true king. It was "a dangerous trial without thread and without net, for according to the ancient custom of myth and epic, false claimants must die."

What I am suggesting is that the Western faction and Yi I's metaphysics is aligned with Deleuze. There are two notable debates associated with the Western faction called the Yesong debate and the Horak debate. Let us examine the Yesong debate; we will examine the Horak debate in another book.

The Yesong debate (1659) was a debate on what ritual clothing the 16th king Injo's (1623-1649) wife, Queen Dowager Jangnyeol, would have to wear at the death of the 17th king Hyojong (1649-1659). Notice the way gender enters the debate: the debate is about a woman's

¹⁴² *Difference and Repetition*, 76.

clothing. As noted earlier in the feminist study of 17th and 18th century Joseon novels, Joseon discourse on ritual seems to have gained an anxiety about specifically female ritual by the 17th century. The ministers are divided whether the Queen Dowager should wear the clothing for three years or one year. The rites are not clear. Song Si-yeol, a leading scholar of the time later canonized as Songzi, cites the classic Book of Etiquette and Ceremonial (儀禮) from the Zhou dynasty (BC 1046-BC 256) and the Commentaries to the Etiquette and Ceremonial (儀禮注疏) by Zheng Xuan (127-200AD). Song Si-yeol does not so much make an argument as cite relevant parts of the books; after all, the rules of ritual are closer to legal doctrine than metaphysics (Refer to “Zheng Xuan’s Commentaries on Law”). According to the citations, there are four cases where one does not wear the three-year clothing, but one-year clothing:

1. 不得傳重: the heir is legitimate and a direct son, but does not have descendants.
2. 正而不體: the heir is legitimate, but is not a direct son. For example, when the heir is the grandson.
3. 體而不正: the heir is a direct son, but not legitimate. For example, when the heir is the second son.
4. 不正不體: is not a legitimate descendant and is not a direct son.

Song Si-yeol says the third case applies to king Hyojong, that he is not legitimate. But this is scandalous: how could a king not be legitimate? Song Si-yeol is persuaded not to pursue this argument by a frightened minister. A less scandalous, empirical argument is used and the Queen Dowager ends up wearing the ritual clothing of one year. But this leads to the demise of Song Si-yeol and the Western faction, as he is sentenced to death thirty years hence in 1689. Song Si-

yeol's intellectual heritage is many, but one idea we should note is that he believed even *yi* could be corrupted and unjust. He followed Zhuxi in saying that of Mengzi's four beginnings, the heart of compassion and the heart of shame may be evil, and the way to distinguish whether they are evil or not is to apply the criteria of 中節, taken from the Doctrine of the Mean. The criterion is roughly that of harmony: the heart of compassion and the heart of shame may be evil if they are not harmonious. The political implications of this is the idea that the sovereign, the expression of *yi*, can be evil. This is a significant political idea.

While Joseon finds itself unable to resolve the problem of patrilineal legitimacy by arguments over metaphysics or rituals, the sang-pyeong-tong-bo starts circulating in 1678, and Joseon quickly loses its aristocratic founding values. The sovereign gains more and more power, which hits its zenith by king Jeongjo. Jeongjo controls the sang-pyeong-tong-bo mint, gaining perhaps the highest amount of power of any Joseon king. But after Jeongjo dies in 1800, Joseon quickly slides into oligarchy. The rich marry their clan into the royal family and hoard political power. Regent Daewongun coins the dang-baek-jeon (당백전 當百錢), literally one-per-hundred-coin, to finance the reconstruction of the Gyeongbokgung palace. While the nominal value of the dang-baek-jeon was a hundred sang-pyeong-tong-bo, its intrinsic value was just five to six times it. Jeongjo is posthumously exalted as the first emperor of the short-lived Korean Empire in 1897, but by 1910, Joseon is annexed by the ascendant Japanese Empire, receding into history.

Yi Hwang and Yi I fundamentally disagreed on whether *yi* and *qi* were dual or nondual. Yi Hwang's thought is carried out by the Eastern faction, and Yi I's by the Western faction. Since the king is thought to be *yi* and the people (or at least the *yangban* scholar class) are thought to

be *qi*, that the two are nondual weakens the justification for the sovereign. While such a thought might seem to lead to the end of monarchy, the king enacts brutal persecutions of republicanism such as in the Gichuk Oksa. In my view, Yi Hwang's view leads naturally to a focus on political power, as in Deleuze's "dangerous trial without thread and without net", while Yi I's view leads naturally to ritual debates such as the Yesong debates of 1659 and 1674, for ritual describes how to adjudicate between *yi* and *qi*. Another ritual is the minting of the sang-pyeong-tong-bo, a naturalized object. The only explanation I see for the fact that the government could take a 60% seigniorage on the coin and get away with it was that the coin was an expression of a natural law, a ritual, created specifically at the moment of a ritual crisis. It is 1678 when the sang-pyeong-tong-bo started circulating, and 1689 when Song si-yeol, the head of the Western faction, now called No-ron, is sentenced to death. The sang-pyeong-tong-bo is the brainchild of Huh Jeok of the Southern faction, a descendant of the Eastern faction, who believed in yi-qi duality. Huh Jeok and Song Si-yeol were philosophical and political opponents. In 1671, he became Yungeejung (영의정), the highest post of the realm and roughly today's prime minister, but is assigned to an honorary role after being critiqued by Song Si-yeol. Still, Huh Jeok advocates for a gentler penalty for Song Si-yeol rather than the death penalty. As the sang-pyeong-tong-bo gains wide circulation in the late 17th to early 18th century, No-ron scholars start having more metaphysical debates in what is known as the Horak debate, carried out during the early 18th century to the early 19th century. Briefly, the debate was about whether animals had *xing* (nature) like humans do. Modern historiography often characterizes this as a debate about democracy: whether those of the lower class and the barbarians, conceptualized as animals, were essentially the same as the *yangban* higher class, of which the scholars were a part. We might see Drumm's idea that

democracy is a society of the coin echoing in the fact that this debate happened as coins started circulating widely for the first time in the dynasty. But there is more to be said about the Horak debate, as the notion of *xing* has no easy translation. Literal translations include sex, nature, and last name, which in English sound like rather unrelated notions. But if *xing* is sex, there is an interesting possibility. The debate then becomes a debate on whether animals and humans have the same kind of sex. To say they do would be to mean animals and humans can sexually consent. This is a straight reductio. Then the Horak debate was a degenerate metaphysical debate caused by the degenerate conditions money wrought; the question is why money has the effect of making people think that animals and humans have the same kind of sex. Such a thought, held transcendentally, becomes a condition of possibility of transphobia. But the distinct contribution of Mencius to Confucianism, Mou argues, is that he discussed sex (*xing*) transcendentally as something beyond external characteristics shown by living creatures by connecting sex (*xing*) to humanity (*ren*) as forming a unity. To collapse sex into external characteristics shown by living creatures just is transphobia. Mou argues that Mencius showed that the intension of sex (*xing*), the intension of heart (*xin*), and the intension of the sky (*tian*) are the same. Mou connects this to Kantian metaphysics: *xing-xin* (sex/nature of the heart) is subjective and an agent of practical reason, while *tian* (the sky) is noumena.¹⁴³ Mou's intervention into Kant is that because the intensions of the aforementioned are the same, noumena can be known by the subject, and there can be intellectual intuition. Mou still retained the subject, unlike us. In any case, to think of sex as a transcendental condition of possibility, while maintaining that what plays out under those conditions of possibility, noumena, are knowable as a unity with their own transcendental

¹⁴³ Mou, trans. 김기주, 심체와 성체, 69.

conditions is coherent only when we think that the unity dissolves the transcendental conditions. Sex as transcendental condition is held *only up to the point* where it finds unity with noumena (tian), where it dissolves. When we consent, we really do not care what sex the other person has. Consent dissolves that question. What sex the other person has becomes incidental to consent.

Historians often point to Joseon's unstable patrilineal line as a source of political instability to the detriment of the people. But was this really so? If Bong Hwa-baek was right, the unstable patrilineal line was a feature, not a bug. Joseon was a dynasty where philosophers, scholars, seonbi often seized political power. It was explicitly designed for the rule of sages. But this came at a cost, often the greatest cost, for the seonbi. A recurring theme in Joseon is the numerous bloody purges of scholar-officials, the "calamities of scholars". Seonbi would say what they wanted to say and gladly drink the arsenic. The Apology played out in every generation. The irreducible tension between the sovereign and the seonbi often produced not a federable difference, but unaffirmable difference that led to violent, bloody contradictions. In Europe, the subjects had an outside option: they could melt their coins and move to a different country when the king grew not so fond of them. But in the Joseon dynasty, the state was nature, money was an expression of natural, moral law, and nature was a totality. The only outside option therefore was death, cashed out in the reverent memory of future seonbi.

For Bong Hwa-baek, such memory came late. In Yi Bang-won's official story, Bong Hwa-baek threw the coup and attempted to kill all the princes to seize power for himself, which Yi Bang-won had to stop heroically. For the remainder of the Joseon dynasty, this story is widely believed. It is only in 1935, twenty-five years after the end of the dynasty, that the historian Yi Sang-baek publishes a seminal paper (On the Personality of Chyeng Sam-Pong) showing that it

was Yi Bang-won, not Bong Hwa-baek, who threw the coup. Was Bong Hwa-baek's coup an unaffirmable difference for five hundred years? Can the work of history redeem seemingly unaffirmable difference?

Money is ironic and sadistic, but it is also an object of ritual (*li*). Is *li* ironic and sadistic? Certainly empty *li*, the kind Confucius warned about, can be ironic and sadistic. The corrupt seonbi who does not cultivate virtue but demands the farmers bow to him is ironic and sadistic. But when we say money is *li*, are we saying it is merely a metaphor? Drumm would warn against this:

Money, to be sure, enters into our social relations in important ways, and we can make a metaphor out of money — but always, underneath and resistant to our attempts to explain what money “really is just,” there is an excess of irreducible metonymy. This metonymy is the way that money relates to all the things that might be bought or sold in its name: not by being “like” them, but by following them or preceding them in time and space.¹⁴⁴

Li enters into our social relations in important ways, but *li* is not a metaphor. *Li* is repeated. Metaphor is in the order of resemblance, of generality, of representation. Repetition is not metaphor. “Repetition is not generality”.¹⁴⁵ The question is what kind of repetition *li* is. Is *li* repetition of the Same, or repetition that draws a difference? It would seem to be both. *Li* must be carried out exactly the same each time with utmost reverence. *Li* is not meant to pass the test of eternal return. Bowing is not meant to be infinitely intense. Rather, *li* is a repetition suspended in

¹⁴⁴ Drumm, *The Difference That Money Makes*, 475.

¹⁴⁵ Deleuze, *Difference and Repetition*, 1.

between repetition of the Same and repetition that draws a difference. *Li* is not consent, but rather a promissory note towards consent. In exchanging this promissory note, and this is not a willy-nilly metaphor I am using, we do not so much obtain but set the stage for consent. It is not that bowing makes us consent; rather, without bowing, we assume there cannot be consent. *Li* is a condition of possibility of consent. Money in the Joseon dynasty could take the 60% seigniorage it did by parasiting itself into this condition of possibility. When money became *li*, not having money meant the condition of possibility of consent disappeared. As the loss of consent is the loss of the world, people scrambled to attain money. But this is also the violent logic distinguishing the human from the barbarian in Korean rather than white garb: the human knows *li*, the barbarian does not. This is categorically different from the white method of distinguishing humans from non-humans, which is to adjudicate whether they have rationality. Still the two converged when money became the criteria through which modernity distinguished who was human and who was not. Both Korea and the West agree that those without money might as well not be human. For Korea, money is *li* and those without *li* are not human. For the West, rational subjects get money and those who are irrational are not human.

Li is a repetition, oftentimes a habit. The problem is this habit often reifies into a habit that *ought not* be an object of contemplation. The habit of bowing *ought not be contemplated* because if we contemplate ourselves out of the habit, others might assume they cannot consent with us. But this is also to say that *li* is constitutively non-metonymic insofar as it is in a dynasty. Sovereign succession is said to be metonymic, but a dynasty is defined by its *li*. Successive sovereigns in the same dynasty are honored with the same *li*. If *li* is metonymic, it is only when the dynasty changes. Even so, habits do not die with dynasties. What historical research can

reveal what habits of *li* people in ancient dynasties had, and how those habits changed as dynasties changed? If money is *li*, whence the dynasty of money? If modernity is the name of the dynasty of money, where money became *li*, whither this *li*, where is the metonymic dynastic succession of money as *li*?

14. CONCLUSION

Writing draws a difference in that the writer is transformed in the act of writing. When I set out to write this book, I was convinced that events that have a rupture-like quality, events that could not have been predicted by any means whatsoever, had thick, irreducible, ontological import, a higher ethical status than that which is predictable. This was partly a reaction to a world being computed by surveillance algorithms, my own experiences being “computed” by racism, and so on. But writing this book has given me an appreciation for the non-ruptural event, the continuous limit-event I theorized. Having a taste for the uncomputable, of transfinite iteration, seem to me the effect of a wound, if a sacred wound. It is good to appreciate stigmata, but it would be preferable if stigmata did not have to exist.

The non-ruptural event, the continuous limit-event, the computable-2 consent: if we are blessed with a new generation, we ought to wish this upon them. Sometimes I think of the metaphysical crimes committed in the name of whiteness and wonder what drove the people who declared themselves white to commit the crimes they did. Sometimes I wonder if, in some twisted way, they were wishing this same wish, wishing the non-ruptural consent to grace their children. The tragedy is that their non-ruptural consent was twisted into a finitely terminating rational deliberation that outputs “yes” or “no”, that they cursed their children not only with an inability to truly consent, but also with a philosophical labyrinth explaining to them why this thin consent is enough. The comic force capable of dealing with this labyrinth, this law, is a force I sought to channel in this book. If I should like to write an apology for Kant, it is that his rational subject following the moral law is performing a heinously hilarious act. And we must laugh with

them, not at them but with them, because laughter, the comic force, is what breaks the rational subject, that abolishes the rational subject into the warmth of thick consent.

In the *longue durée*, Western philosophy is a movement from doubt in the Good — which is the non-dissociated unity of madness and consent — towards a more radical doubt, that erects the rational subject as a lifeboat, only to be cursed with the inability to consent and the desire and enactment of genocide upon those who can. There is a double, theological movement in which the further the doubt, the stronger a hope becomes towards a Messiah who can redeem it all, who can affirm all the unaffirmable difference. The triple movement, Zionism, constructs the Messiah itself, affirms the return to the Promised Land itself. Christianity, routed through Kant and Hegel, becomes secularized rationality, which is conceived as a property of whiteness. Zionism is the completion of secularized rationality's self-saving movement whose conclusion is the (non)affirmation of genocide.

In Pauline Christianity, Christ is supposed to have made Jews irrelevant: Christ dissolved the boundary between Jew and non-Jew. The Jewish Question, as Meister poses it, asks: *why are there still Jews?* In this formulation, the Jew is the paradigmatic minority because the Jew occupies the position of those who exist provisionally between the time of Christ's ascension and his Second Coming. It is debatable whether Pauline Christianity's formulation of the Jews occupies any theological significance for Jewish people, but it is undeniable that hegemonic whiteness operates on this default assumption of Pauline Christianity, and that hegemonic whiteness conceives of minorities as cases of the Jew as paradigmatic minority. To be a minority is to be one whose existence is provisional. Minorities are supposed to stop existing when we are redeemed in the Second Coming. The ideology of whiteness says minorities are redeemed when

they are assimilated into whiteness. Respectability politics plays the game of this assimilation whereby minorities attempt to become white, to be redeemed in the white way. But to be redeemed is to be in consent. Whiteness has constructed itself to be incapable of consent, and its seeming tolerance of the minority is only up to the point where they achieve consent: when they do, they must cease to exist, because the Messiah must be crucified in repetition. When people of whiteness experience a taste of consent, they do not consider themselves redeemed but instead move to annihilate the minority who offered consent. “We do not repeat because we repress, we repress because we repeat”¹⁴⁶ — The Messiah is crucified in repetition and the repressed subject incapable of consent is re-established. Sometimes this takes the form of physical annihilation, or genocide. Sometimes it takes the form of racism and sexual violence that breaks consent. In a certain sense, Zionism is a refusal of this logic, even as it is the only political theology of whiteness. Zionism declares that the minority must be protected, that the minority has a right to exist. In Zionism, the minority no longer seeks to be assimilated into whiteness but declares itself redeemed. By its self-completion of redemption, the Jew as minority is identified with Israel the state which gains “the right to exist.” This paradigmatic position is exported to all those who are assigned or claim minority status. But true arrival of the Messiah on a fallen world is tragicomic assignment of all truth values through the transfinite climb. Self-completion of redemption via military operations is a computable-1 operation that purports to have assigned all truth values, which is metaphysically vacuous.

I am a metaphysician, not a political theorist. This book is a treatise on the metaphysics of consent. So it might seem strange that the conclusion is a pivot into politics. But our

¹⁴⁶ *Difference and Repetition*

metaphysical commitments drive us all the way down to political commitments. The advantage of a correct metaphysics is that it shows what the correct political commitments are. If the arguments in this book hold, true consent is a ceaseless, non-terminating event between at least two people; this picture is incompatible with a picture of individuals who consent by finite rational deliberation; and, crucially for our politics, this thin-consent view of the world is the world sought by liberalism, whose political theology is Zionism. Zionism's catastrophic consequences, its genocide of the Palestinian people, necessitate a theological intervention. Jewish political genius must be found not in Zionism but in the sovereignty of wandering: diaspora as the model for "replacing national self-determination"¹⁴⁷. Exile and diaspora must be sharply distinguished. The point of being exiled is that you are waiting for the Messiah to lift you out of exile. In exile, you wait for the Messiah; in Zionism, the "negation of exile", the Messiah is self-constructed via military intervention. But being in diaspora does not necessitate a Messiah, at least not a Messiah who is an object of worship, a Messiah in ontology. Being in diaspora does not necessitate an ontological Messiah, though a paraontological Messiah might be needed. What does the Messiah *do*? The Messiah achieves consent. If one thinks of the Messiah as the assignment of all truth values of propositions up to the first nonrecursive limit ordinal (paraontologically), the Messiah might be the condition of possibility of consent: the fixed point is achieved via the Messiah, even in our non-continuous, fallen world. But is there a point in debating whether the Messiah has arrived or not? Probably not. Christ is meant to be paraontological rather than ontological; far better than to debate the Messiah's arrival is to apply the test of consent. Whenever one achieves consent, a fixed point, with another person, one is

¹⁴⁷ Boyarin and Boyarin, "Diaspora: Generation and the Ground of Jewish Identity"

doing what the Messiah does. The Messiah starts from kenosis, starts from the bottom and builds up, from empty flesh to full flesh, in an induction, the way the fixed point semantics was presented in this book. It is possible that the average Joe does not start from empty flesh but rather does coinduction: starting from the assumption that all propositions are true and false,¹⁴⁸ he pares out inconsistencies in his flesh. In this way the average Joe can take advantage of the Messiah's derivations, carefully derived propositions all the way from the void, to find which propositions are inconsistent in his flesh. In centuries of wandering, Jewish people could have become so used to code-switching that they essentially assimilate to the rest of the population. Boyarin says "The genius of Christianity is its concern for all the peoples of the world; the genius of Judaism is its ability to leave other people alone." Jewish genius, its ability to leave other people alone, might be a peculiar kind of kenosis held in suspension: a spectacular universal machinehood that can simulate its environment and blend in, while maintaining a coherent identity, not imposing its identity on others. It is difficult to see how collections of emptied out flesh can maintain a coherent identity, other than the fact of being a void.¹⁴⁹ Jewish identity survives in large part through an intellectual, philosophical, and theological tradition that expresses its unique propositions of its flesh under its specific limit ordinal. If politics just is how to resolve the problem of differently mad-together persons, persons living among other persons

¹⁴⁸ Visser, "Four-valued semantics and the liar".

¹⁴⁹ At final analysis, kenosis comes from unaffirmable difference. Not every sex worker gets to kenosis, but sex work is one way to get to kenosis. It is as if active synthesis in the flesh is another mechanism through which kenosis happens... If one becomes *aware* of the propositions in one's flesh such that one's flesh continually speaks to oneself, the flesh no longer inhabited like a quiet home but an essentially conscious object, is this the mechanism by which kenosis is achieved? One *should not* be aware of propositions in one's flesh; one becomes aware of them because the propositions are *incorrect*. Perhaps there is another mystery of thinking and being here in which is implicated the history of consciousness, and by extension, money. Is consciousness nothing but awareness of propositions in one's flesh? Is it the dissociation of thinking and being that causes this awareness? Will consciousness cease, and madness cease, and money cease, when thinking and being are finally one?

with whom they have unaffirmable difference, Jewish diaspora is a model case for how differently mad-together people can live together and thrive, while Zionism is its catastrophic counter-image. For this reason, New York City is practically a utopia compared to Israel.¹⁵⁰

Ours is a syncretic age. If the age of “globalization” that inaugurated the 21st century was in fact neoliberal hegemony and Kant’s presumptuous victory march, ours is the end of that hegemony, the collapse of American empire, the blooming of a Hundred Schools of Thought. One thread I did not follow in this book is Buddhist thought. This book, though not explicitly theological, is characteristically Christian in its emphasis on flesh, as I am sure you have noticed. But I want to make some remarks on Buddhist thought. Buddhist thought is machinic in the sense that the achievement is the passing of linguistic signals that evoke nothing, language close to computation. If I have a theory of the contemporary moment, it is that machinic Buddhist thought is interacting with the West as social media algorithms and large language models. Freudian repression has been let loose with their contact with machines and has brought upon the rise of the alt-right, the rise of Trump, the end of America. The end of repression is the end of the subject. The subject is the secularized achievement of Christianity. This is why the moment, the end of repression, is apocalyptic; as it happens, the coincidence of Buddhist machine and Christian subject has brought about the apocalypse.

The apocalypse is not an abstract concept today. It is ceaselessly evoked, from climate change, to the end of America, to the rise of so-called AGI. What do we do at the end of the world? As for me, I am happy a new world is beginning. A new generation free of stigmata shall follow.

¹⁵⁰ To borrow the words of John Ganz.

15. ON METHOD

Stiegler says in *Technics and Time* that philosophy begins with the dissociation of techne from episteme. Episteme is philosophical; techne is sophistic. He traces this movement through the history of philosophy, through Husserl's diagnosis of Leibnizian *mathēsis universalis* as calculation, "the technicization of mathematical thought by algebra in terms of a technique of calculation"¹⁵¹, which is supposed to "produce loss of memory", dissociating us from Socrates's reminiscence. As reminiscence is the ground of truth, truth itself is supposed to be lost through technicization. For Heidegger, this is no less than the forgetting of being, and the task of philosophy is to recover the question of being. Dasein is authentic inasmuch as it is anxious towards the "uttermost possibility", the "possibility of impossibility" that is death. Facticity is what makes possible the attempt to take flight from death, and it "forms the existential root of calculation."¹⁵² Calculation, in turn, is "the falling of existence". Stiegler's Heidegger seems to believe calculation is not an authentic mode of engaging the uttermost possibility. Authentic Dasein anticipates death, faces its anxiety, is being-towards-death. Authentic Dasein does not take flight from death. It would seem, then, that authentic Dasein does not calculate. Yet there is a difficulty here. Modern technics "appears simultaneously as the ultimate obstacle to and as the ultimate possibility of thought" in Heidegger. Technics is simultaneously inauthentic Dasein and the completion of metaphysics via *mathēsis universalis*: in Deleuze's formula, "the world "happens" as God calculates". As is a theme of this book, it is instructive to consider Heidegger's ideas on the unity of thinking and being:

¹⁵¹ Ibid., 2.

¹⁵² Ibid., 6.

Identity, which is firstly identity of being and thought, constitutes the fundamental trait of being. But the principle of identity

has become a principle bearing the characteristics of a spring that departs from being as the ground of beings, and thus springs into the abyss [*Abgrund*]. But this abyss is neither empty nothingness nor murky confusion, but rather the *Ereignis* itself.¹⁵³

For us, identity is the identity of thinking and being, but the being of eternal return, being in a time of infinite intensity. It is in eternal return, in the taking of the supremum, that thought reaches all the way to being in consent. Only consent returns. Contra Deleuze, consent is not an extreme moment. Consent is an everyday low-grade burning of the stove. *Ereignis*, the event, is said to be an abyss. But this is where Heidegger must be assassinated: the event is not an abyss, but consent. Trapped in Nazism, foreclosure of consent, Heidegger saw consent as an abyss. The abyss is the ungrounded. But consent is not ungrounded. *Being and Time* must be seen as an attempt to make death and event coincide. Dasein is being-towards-death: it waits for the uttermost event. But death is not the possibility of impossibility. Rather, it is impossibility itself. If death is the possibility of impossibility, death must be anticipated. If it is impossibility, it must be forgotten, or cannot be thought at all. The question of authenticity dissolves: for Heidegger, to anticipate death is authentic, and to flee from death is inauthentic. But neither anticipating nor fleeing from death is satisfactory. Either case is one thought too many. When thinking and being are one, to think death is to die. When thinking and being are one, death cannot be thought in life. In consent, the question of death does not arise. Consenting beings do not think of death,

¹⁵³ Ibid., 7-8.

except when they die. The question whether calculation is the “ultimate obstacle” or the “ultimate possibility of thought” also dissolves. Calculation is the ultimate obstacle to thought insofar as it draws its own limits: mathematical logic calculates for us that which we cannot calculate. But it is also the ultimate possibility of thought insofar as the boundaries it calculates about what we cannot calculate thereby lets us not make wrong calculations. “The world “happens” as God calculates; if the calculation were exact, there would be no world.” God’s calculation is not exact in the sense that calculation draws its own limits which cannot be steamrolled over.

Is mathematical logic *techne* or *episteme*? Is using mathematical logic for philosophy sophistry? The question has to do with whether the method is analogical. If mathematical logic is used as analogy, what is happening? For Deleuze, Aquinas equivocates on being through analogy. For Aquinas, God’s existence is analogical to man’s existence. We know God by analogy. Is mathematical logic a way of describing God’s existence, to which man’s existence is only an analogy? Is eternal return really a taking of the supremum, or is this an analogy? If it is an analogy, there is an equivocation between the being of eternal return and the being of the supremum. The being of eternal return is eternal return in experience; the being of the supremum is, at most, thinking the supremum in thought. Deleuze distinguishes the second passive synthesis, which is the passive synthesis of memory, with the active synthesis of memory. The second passive synthesis is said to be “playing the role of ground”, that it is of the pure past, memory that is “not itself represented”, while active synthesis of memory is of memory that is represented. But what if there is no second passive synthesis? This is not to say that all memory is or should be represented in active synthesis. Rather, it is to trouble the relation between

memory that is not represented and memory that is represented, to trouble the relation between the conscious and unconscious. If mathematical logic, specifically fixed point semantics, is the form of active synthesis in the flesh, Deleuze was misguided in thinking that there is passive and active syntheses of memory because his method was using passive synthesis, via natural signs, to denote the form of synthesis of memory. His natural signs did both passive and active syntheses of memory, but with the artificial signs of fixed point semantics, we are left with just the active synthesis of memory. We have said that the sex worker does active synthesis in the flesh. The flesh remembers, is memory itself. But is the flesh represented? Consent always occurs at the absolute tip of representation, the boundary between representation and what cannot be represented. But that is also to say that consent has a character of touching. One can never think oneself into being touched, but a conversation can have the character of touching. In speaking, I might represent my flesh, but that representation runs up against your representation of your flesh, which I do not represent but affirm as difference. I can never represent your flesh in speaking, provided that I affirm your flesh as difference. I represent your flesh in speaking only when you are unaffirmable difference and I am engaging in political speech. It is not that there is passive synthesis of unconscious memory and active synthesis of conscious memory. It is that there is active synthesis of flesh with unaffirmable difference as political act, and active synthesis of flesh of affirmable difference as consent. The equivocation between memory as object of passive and active synthesis is revealed to be an ethical and political boundary. But this is also to say that psychology's distinction between the unconscious and conscious is what makes our politics toothless, and the political categories which give us more purchase, and are more dangerous, are unaffirmable and affirmable difference.

The fixed point of flesh is consent. There are two ways in which consent does not exactly fail but overflows, the fixed point as the knife cutting across the world of unaffirmable difference: the ecstasy of thought, and the ecstasy of being. In each case there is an excess. The first case is philosophy, properly construed; the second case is movement, the completion of which is dancing. It is not that represented flesh becomes philosophy, and flesh not represented becomes dancing. The difference between my flesh and your flesh is that I can represent my flesh for philosophy and dancing, but for me to represent your flesh is politics. Sometimes, the only way to represent my flesh is to represent yours. Ideally, this should never be the case, but it is what unaffirmable difference demands us do; it is where the philosopher or dancer is forced into politics. The philosopher indicting the Zionist with metaphysical argument and the dancer moving in contradiction to Zionist oppression are *doing the same thing*, just in different modalities. Both philosophy and dancing are representations of flesh in two different modalities of thinking and being. Both are characterized by continuity, a flow, which may be mistaken for but is opposed to “step-by-step deterministic relations between presents which succeed one another according to the order of a represented time”. Deleuze says destiny never consists of these deterministic relations, that instead destiny “accords so badly with determinism but so well with freedom”, because freedom lies in choosing the levels of “more or less contracted” presents, “the ever-increasing coexistence of levels of the past within passive synthesis”. But the present is not more or less contracted; it is either in consent, or it is not. The logic of the fixed point is rather severe, a binary. There is no “more or less” of a fixed point. This is why the fixed point is not about intensity. Certainly one may be in a gradient that leads to a fixed point, or a gradient that leads out of it. But consent is a fragile vase rather than a pile of clay. It is always possible to

reassemble the broken vase, but it takes time and effort, sometimes an heroic amount of it. It is not in anyone's destiny to be in consent, or to not be in consent. Consent is neither determined, nor is it freely chosen. As it happens, one probably attains and leaves consent, over and over, multiple times a day. The juxtaposition of determinism with freedom is misguided. The correct juxtaposition is between continuity and discontinuity. Continuity does not imply determinism. Eternal return can be had in continuity, and it is mathematically easier to achieve in continuity (ω vs ω_1^{CK}). But this is also to say that mathematical logic is not deterministic but continuous.

Mathematical logic certainly relies on step-by-step derivations, but the derivations we have focused on are in the service of mapping out exactly what cannot be derived by step-by-step derivations. In doing so, we dissolve the decision (*crisis*) between techne and episteme, of madness and rationality, that inaugurates philosophy. If mathematical logic is techne, it is techne drawing its own boundary, which is also the boundary of episteme. If we consider that techne and episteme are distinct, they must have a boundary. But techne draws its own boundary. The crowning achievements of mathematical logic are those moments where mathematical logic *exactly cannot know*. The boundary, the points of contact, traces the outline of episteme. The outline of episteme, but not its content, is the function of mathematical logic in this book. The method is consistently to draw a outline with mathematical logic and scour the literature to find the shapes, phenomena, that fit the outline. The advantage is that we are sure that the outline is correct, since it is drawn by deduction. We cannot, however, know if the phenomena fit the outlines with deductive certainty. If we could, we would be asking for deduction to fill in the content and not just the outline of phenomena. If we could, deduction would not only trace the outline of phenomena but be phenomena itself. If we could, deduction would exhaust the world.

This is something I have argued against in the entirety of the book. It would be self-defeating. Deduction does not exhaust the world; it can at most draw an outline of noumena. Whether the phenomena or noumena fit the outline is not a problem of deduction but of philosophical rigor, empirical observation, and aesthetics. Sovereign judgment in the service of a politics that leads us to the fixed point, which leads us out of the tragic subject, through madness, to consent.

APPENDIX

Diagonalizing Through the ω -Chain: Iterated Self-Certification on Bounded Turing Machines and its Least Fixed Point

Abstract

Bounded self-certification in Turing machines fails because self-simulation necessarily incurs a strictly positive temporal overhead. We translate this operational constraint into a domain-theoretic framework, defining an operator that advances a finite halting observation from time bound i to $i + 1$. While no bounded machine can achieve a fixed point under this operator, the iterative process forms an ascending ω -chain. The Scott limit of this chain resolves to the least fixed point of the operator, representing an unbounded computation that fully captures the machine's halting behavior. Our construction provides a novel perspective on the halting problem, framing the transition from finite observability to the least fixed point as the continuous deferral of the diagonal.

Setup

Let A be a Turing machine operating under a time bound T . We consider the self-halting problem for A : can A , on input $\langle A \rangle$ (the encoding of A), decide that A halts within T steps?

A Turing machine D with time bound $K \gg T$ can answer this trivially by simulation. But D with time bound T cannot, even if $D = A$. To decide whether A halts on $\langle A \rangle$, D must simulate its execution. In general, simulating k steps of an arbitrary Turing machine takes at least k steps. Furthermore, at least one extra step is needed to enter a halting state and output the verdict.

Lemma 1. *Let A be an arbitrary Turing machine and let D be any Turing machine (it is possible that $D = A$ by Kleene's recursion theorem) that correctly decides whether A halts within T steps. Then D requires at least $T + 1$ steps.*

Proof. Let $c_0, c_1, \dots$ denote the configuration sequence of A on input $\langle A \rangle$, where $c_{t+1} = \delta_A(c_t)$. The statement “ A halts within T steps” holds iff some c_t with $t \leq T$ is a halting configuration.

In the worst case, A halts exactly at step T . To correctly decide the statement in this case, a machine D must determine the configuration c_T . The only way to obtain c_T from c_0 is to follow the computation of A through T successive transitions; there are no structural facts about A that can help us, since A is assumed to be arbitrary. Thus D must simulate at least T steps of A before it can know whether halting occurs at step T .

After determining this information, D must perform at least one additional step to enter a halting state and output the verdict. Therefore any correct decider executes at least $T + 1$ steps. In particular, by Kleene's recursion theorem, there exists an $A = f(\langle A \rangle)$. Since we have shown it for the general case, we have shown that for the specific case where D equals this $A = f(\langle A \rangle)$, a T -bounded machine cannot decide its own T -step halting. $\square$

The consequence is immediate: A with time bound T cannot decide the halting behavior of A at time T . At best, it can decide its behavior up to time $T - 1$, but the T -th step remains opaque. A cannot decide its own halting. The next step cannot be known until it is computed. This is a

resource-bounded diagonal argument: attempting to certify the T -th step within time T forces a strictly larger bound.

The Operator

Let D be the domain of monotone partial functions $p: \mathbb{N} \rightarrow \{0, 1, \perp\}$, satisfying $p(k) = 1 \implies p(k') = 1$ for all $k' \geq k$, ordered pointwise by extension: $p \sqsubseteq q$ if q agrees with p wherever p is defined. We interpret $p(k) = 1$ as “ M halts at or before step k ,” $p(k) = 0$ as “ M has not halted by step k ,” and $p(k) = \perp$ as “the behavior at step k is not yet determined.” We define $F: D \rightarrow D$ by induction on k . For $k = 0$, the value $F(p)(0)$ is independent of p and records a direct observation of M :

$$F(p)(0) = \begin{cases} 1 & \text{if } M \text{ halts at or before step } 0, \\ 0 & \text{otherwise.} \end{cases}$$

For $k \geq 0$, the value $F(p)(k + 1)$ extends p by one step:

$$F(p)(k + 1) = \begin{cases} \perp & \text{if } p(k) = \perp, \\ 1 & \text{if } p(k) = 1, \\ 1 & \text{if } p(k) = 0 \text{ and } M \text{ halts at exactly step } k + 1, \\ 0 & \text{if } p(k) = 0 \text{ and } M \text{ does not halt at step } k + 1. \end{cases}$$

Note that $F(p)(k + 1)$ depends on p only through the single value $p(k)$; this locality is what makes F Scott-continuous, as shown in Proposition 1.

Starting from the empty partial model $p_0 = \perp$, define $p_{i+1} = F(p_i)$. By induction, p_i is defined on $\{0, 1, \dots, i - 1\}$ and undefined beyond, and the sequence forms an ascending ω -chain in D :

$$p_0 \sqsubseteq p_1 \sqsubseteq p_2 \sqsubseteq \dots$$

Each application of F records one additional observation of M 's configuration, consistent with the $+1$ overhead established in Lemma 1.

Proposition 1 (Monotonicity and Continuity). *The operator F is monotone: more time yields strictly more information, and no previously determined value is contradicted. It is also Scott-continuous: for any k , the value $p_\omega(k)$ is determined at the finite stage p_k , so the limit commutes with F .*

Proof. We first show monotonicity. Let $p, q \in D$ such that $p \sqsubseteq q$. By definition of the information ordering, q agrees with p wherever p is defined ($p(x) \neq \perp \implies p(x) = q(x)$). The operator F preserves all defined values of its input and determines at most one additional step of the deterministic computation of M . Because the underlying machine M is deterministic, the additional computation step derived from p must be identical to the one derived from q . Furthermore, any extra information in q is preserved in $F(q)$. Therefore, $F(p) \sqsubseteq F(q)$.

Next, we show Scott continuity. Let $C \subseteq D$ be a directed set. We must show that $F(\bigsqcup C) = \bigsqcup_{p \in C} F(p)$. Because F is monotone, the inequality $\bigsqcup_{p \in C} F(p) \sqsubseteq F(\bigsqcup C)$ holds universally. We only need to show the reverse inclusion: $F(\bigsqcup C) \sqsubseteq \bigsqcup_{p \in C} F(p)$.

Suppose $F(\bigsqcup C)(k) = v$ for some $k \in \mathbb{N}$ and $v \in \{0, 1\}$. The computation of F at step k depends only on a finite prefix of the computation of M (specifically, the behavior up to step $k - 1$). Because C is directed, any finite subset of information contained in the supremum $\bigsqcup C$ must already be fully present in some single element $p^* \in C$.

Since p^* contains the necessary finite prefix to determine step k , it follows that $F(p^*)(k) = v$. Since $\bigsqcup_{p \in C} F(p)$ is the least upper bound, $F(p) \sqsubseteq \bigsqcup_{p \in C} F(p)$. In particular, $F(p^*) \sqsubseteq \bigsqcup_{p \in C} F(p)$. This implies that the value of $F(p^*)$, where it is defined, must equal the value of $\bigsqcup_{p \in C} F(p)$. Therefore, $\left(\bigsqcup_{p \in C} F(p)\right)(k) = v$. Thus, $F(\bigsqcup C)$ contains no information not already present in $\bigsqcup_{p \in C} F(p)$, meaning $F(\bigsqcup C) \sqsubseteq \bigsqcup_{p \in C} F(p)$. The two sides are equal, so F is Scott-continuous. $\square$

The Fixed Point

By Kleene's fixed point theorem, since F is Scott-continuous on D , the least fixed point is:

$$p_\omega = \text{lfp}(F) = \bigsqcup_{n < \omega} p_n = \bigsqcup_{n < \omega} F^n(p_0)$$

This is the total function that resolves M 's halting behavior at every finite step: for each k , $p_\omega(k)$ is defined, because p_{k+1} already determines it. The fixed point p_ω is the complete halting observation of M .

But p_ω is not finitely computable. Each p_n is produced by a machine with time bound n —a finite computation. The limit $\bigsqcup_n p_n$ requires taking a supremum over infinitely many such computations. The Turing machine that computes p_ω has time bound ω . It is no longer a bounded Turing machine but a Turing machine requiring unbounded time. The iterated self-simulation, carried to its fixed point, has produced a transition from finite to infinite computation.

Remarks

Lawvere's theorem. The diagonal argument underlying the simulation overhead, that A cannot simulate itself within its own time bound, is an instance of Lawvere's fixed point theorem. In a Cartesian closed category, if a point-surjective map $e: X \rightarrow Y^X$ exists, every endomorphism of Y has a fixed point; contrapositively, if some endomorphism lacks a fixed point, no such surjection exists. The bounded machine's state space cannot surject onto the space of functions on itself.

Our observation is that this obstruction drives an iterative process whose fixed point lies at a higher computational level.

Generality. The construction does not depend on the specific model of computation. Any bounded device, such as a circuit of fixed depth or a bounded register machine, faces the same overhead in self-simulation and admits the same iterative construction. The key ingredients are: (i) a finite resource bound, (ii) strictly positive simulation overhead, and (iii) domain-theoretic structure that lets the resulting chain converge.

Note. Generative AI was used for proof formatting and suggestions.

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