REVIEW ARTICLE

SPIRIT IN THE CRYPT
NEGARESTANI VS LAND

Vincent Le

ABSTRACT: Iranian philosopher Reza Negarestani's first 2008 book *Cyclonopedia* was written under the influence of Nick Land's nihilistic and antihumanist philosophy which seeks to critique anthropomorphism by confronting us with our coming extinction beyond which our concepts of reason cannot reach. Since *Cyclonopedia*'s publication, however, Negarestani has left behind Landian nihilism to develop in his 2018 book Intelligence and Spirit a neorationalist philosophy of mind whose primary influences are Sellars, Brandom, and Hegel. At 579 clearly written yet dense pages, it is difficult even for a review article to encapsulate the book in its entirety. The first half of this article instead aims to provide a sense of the book's overall project by focusing on how Negarestani outlines and develops his neorationalist philosophy through a critique of Land's antihumanism.

Never one to remain silent whilst others seek to resurrect Hegel from the dead, since December 2018, Land has been releasing a draft on his blog *Urban Futures* 2.1 of his new monograph *Crypto-Current: Bitcoin and Philosophy*, which proffers the most up to date articulation of his main antihumanist tenets. Having organized *Intelligence and Spirit* around Negarestani's objections to Land, this article's second half turns to Crypto-Current to see how Land is able to provide convincing responses to each of Negarestani's objections, showing some to be based on strawman characterizations, others to stem from misunderstandings of Land's position, and still others to lack traction at all. By putting Negarestani and Land's new books in combat, we will ultimately see that the grounds for Negarestani's efforts to move continental philosophy from its Kanto-Landian phase to a renewed Hegelian phase is unsuccessful in that antihumanism is able to respond to each of his objections in kind.

KEYWORDS: Reza Negarestani; Nick Land; Intelligence and Spirit; Crypto-current; Bitcoin; cryptocurrency; antihumanism; neorationalism; Hegel; Kant; artificial intelligence; Sellars; Brandom; nihilism; blockchain; accelerationism.

Until recently, Iranian philosopher Reza Negarestani was best known for his 2008 theory-fiction *Cyclonopedia: Complicity with Anonymous Materials*.[1] That book was written under the influence of Nick Land's virulently nihilistic and antihumanist philosophy which seeks to critique dogmatic metaphysics—understood more broadly as anthropomorphism—by confronting us with the brute reality of our coming extinction beyond which our concepts of reason cannot reach. In particular, Land envisioned technocapitalism as the primary mechanism for deterritorializing reason as its incessant revolutionization of the productive forces would ultimately culminate in an artificial posthuman superintelligence which completely exceeds the bounds of our comprehension:

> It is utterly superstitious to imagine that the human dominion of terrestrial culture is still marked out in centuries, let alone in some metaphysical perpetuity. The high road to thinking no longer passes through a deepening of human cognition, but rather through a becoming inhuman of cognition, a migration of cognition out into the emerging planetary technosentience reservoir, into 'dehumanized landscapes'.[2]

For Land as for the young Negarestani, technocapitalism's creation of strong AI will mark nothing less than the ultimate critique of our transcendental illusions to be able to access the real insofar as it erects a wall across the future over which we cannot see, let alone survive.

Since the publication of *Cyclonopedia*, however, Negarestani has left behind Landian nihilism to develop a neorationalist philosophy of mind whose primary influences are Sellars, Brandom, and Hegel. The result of the last decade of Negarestani's intellectual development is the 2018 *Intelligence and Spirit*. At 579 clearly written yet dense pages, it is difficult even for a review article to encapsulate the book in its entirety. My approach is to instead give a sense of its overall project by focusing on how Negarestani outlines and develops his neorationalist philosophy through a critique of Land's antihumanism. This tactic might at first seem incongruous given that *Intelligence and Spirit* never actually mentions Land by name. Since Negarestani repeatedly critiques antihumanists, nihilists, irrationalists and proponents of both capitalism and

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[1] Negarestani, Reza, *Cyclonopedia: Complicity with Anonymous Materials*, Melbourne, Re.press, 2008.

[2] Land, Nick, 'Circuitries', in *Fanged Noumena: Collected Writings 1987-2007*, eds. Robin Mackay and Ray Brassier, Falmouth, Urbanomic, 2012, p. 293.

posthuman superintelligence, all of which are identifiably Landian positions to which Negarestani once held, it is nonetheless clear that Land is the book's chief target, its He Who Must Not Be Named. Even Negarestani's Hegelian critiques of Kant can actually be read as implicit objections to and refutations of Land insofar as his key contention is that antihumanism paradoxically recapitulates the same dogmas as Kant's conservative humanism. So what this article's first half shows is that Negarestani aims to move continental philosophy from its Kanto-Landian phase to a renewed Hegelian phase inflected through Sellars and Brandom's pragmatist interpretations of Hegel.

Addressing Negarestani's objections to Land still leaves open the question as to whether they are actually valid and convincing arguments. Never one to remain silent whilst others seek to resurrect Hegel from the dead, since December 2018, Land has been releasing a draft on his blog *Urban Futures 2.1* of his new monograph *Crypto-Current: Bitcoin and Philosophy*. Although it focuses on the phenomenon of bitcoin as the title suggests, the book also proffers Land's most up to date articulation of his main antihumanist tenets with which Negarestani takes issue. Having organized *Intelligence and Spirit* around Negarestani's objections to Land, this article's second half turns to *Crypto-Current* to see how Land is able to provide convincing responses to each of Negarestani's objections, showing some to be based on strawman characterizations, others to stem from misunderstandings of Land's position, and still others to lack traction at all. By putting Negarestani and Land's new books in combat, we will ultimately see that the grounds for Negarestani's efforts to move continental philosophy beyond its Kanto-Landian phase is unsuccessful in that antihumanism is able to respond to each of his objections in kind.

1. ANTIHUMANISM IS A HUMANISM

Drawing on Hegel's idea of geist as a community of rational agents and Sellars and Brandom's emphasis on the importance of language to sociality, Negarestani proposes in the first chapter 'Between Conception and Transformation' to take a 'functional' approach to the philosophy of mind by conceiving of the two necessary conditions for the possibility of the mind's structuration of all intelligible experience as the sociality of agents in a semantic

space of public language: 'only in virtue of the multi-layered semantic structure of language does sociality become a normative space of recognitive-cognitive rational agents'.[3] Negarestani is particularly concerned with how sociality and semantics enables the mind to not only model itself and become self-conscious, but also to transform itself according to historically mutable norms beyond any fixed nature or substantive essence: 'in conceiving itself as the configurative or structuring consciousness of itself in the world (or universe), mind is endowed with a history rather than a mere nature or past. […] Once there is a history of history, there is the possibility of abolishing what is given in history'.[4] Negarestani's main target here are any and all theories which treat mind as something ineffable or given by nature, since they fail to grasp that any immediate perception of mind is always-already mediated by historically revisable concepts and norms provided by mind itself. Drawing on Hegel's critique of Kant's 'conservative' notion of the categories of mind as fixed and given when they are really contingent and revisable, Negarestani takes particular issue with the 'antihumanist' idea of human nature. Since antihumanists conceive of the human as a fixed set of properties which limit how much of the world can become intelligible to us, they can only critique the human through our absolute negation rather than through a determinate negation which would come to see humanity's transcendental structures of experience at any one time as contingent, and hence expandable. The irony is that the very attempt to negate the human altogether ends up perpetuating the dogmas of conservative humanism by mistaking local and contingent aspects of mind as necessary and universal. In the same vein, Negarestani rejects the idea of capitalism as the completed totality of history in favor of conceiving it as able to be negated by the community of rational agents positing new norms for how society ought to be governed:

> The suspension of the self-portrait of the human or of the capitalist mode of production as the alleged immediate totality of the state of affairs is thereby differentiated from naïve forms of posthumanism, antihumanism, and simple abolitionist revolutionary politics—a revolutionary politics in which negation is decoupled from the process of determination and instead is turned into a fetishized form of abstract negation which, in its indeterminacy, presupposes a

[3] Negarestani, Reza, *Intelligence and Spirit*, Falmouth, Urbanomic, 2018, p. 1.
[4] Negarestani, *Intelligence and Spirit*, p. 2.

> metaphysical account of totality whose immediacy is actual.[5]

Just as the antihumanists' efforts to eliminate the human altogether maintains conservative humanism's reification of the human's contingent and local aspects as if they were universal and necessary, so do they tend to support reactionary political systems which purportedly abolish the human even as they sustain and even exacerbate humanity's most dogmatic and pre-critical aspects (such as white supremacy or Christian patriarchy).

Whereas antihumanists seeks to negate the human altogether in the name of an abstract, unintelligible beyond, Negarestani proposes that the human must certainly be transformed by stripping away its contingent transcendental structures constraining its field of intelligible experience, but that this should be done through the determinate negation of giving and asking for reasons, justifications and norms in the semantic space of public language. Instead of diagnosing humans' conservative traits so as to suspend them, antihumanists inadvertently side with conservative humanism's dogmatic image of the human purportedly in the name of a radical alterity: 'inasmuch as such anti-humanist alternatives have already foregone the geistig resources necessary to diagnose and suspend the conservative traits or characteristics of the human, they become the servants of that very conservative concept of the human they originally set out to escape'.[6] *Pace* the antihumanists' reading of humans and capitalism, for Negarestani, intelligence is always something that can be concretely negated by modelling itself so as to determine what aspects of mind are necessary (sociality and semantics) and what are contingent, and hence subject to revision through the postulation of new norms for thought and action: 'by recognizing what is universal and necessary about itself, mind becomes capable of revising the transcendental types or structures it previously deemed to be universal and necessary for the realization of its abilities or cognitions'.[7]

Negarestani's critique of antihumanism as a crypto-humanism hinges on the distinction between norms and nature, reasons and causes, thinking and being. Following Sellars' distinction between the manifest and the scientific

[5] Negarestani, *Intelligence and Spirit*, p. 8.
[6] Negarestani, *Intelligence and Spirit*, p. 61.
[7] Negarestani, *Intelligence and Spirit*, p. 23.

image, Negarestani argues that the mind is dependent on material substrata without being reducible to them to the extent it is able to develop and pursue norms which are not given in nature, and which are therefore revisable by the community of rational agents. Here, Negarestani opposes the 'flat picture' that reduces the mind's properties to its material substrata in a one-to-one correspondence without qualitative distinction. The trouble with the flat picture is that it leads to a 'panpsychism' which sees the properties and norms of mind as always-already in nature in a way which makes it impossible to specify the precise, necessary conditions for the possibility of mind in sociality and semantics, as if galaxies and other natural objects also satisfied these conditions: 'anything can be furnished with mind, be it a rock or a piece of "swiss cheese". […] Thinking becomes ubiquitous to the extent that there are no specific organizing or explanatory constraints for its realization'.[8] In particular, Negarestani takes issue with the notion of an artificial posthuman superintelligence for depending on a Bayesian predictive model of mind as simply an information processing system without taking into account the necessary conditions for the realization of not just sentient, but specifically sapient and reflexive minds, which can only arise through a collective, deprivatized language:

> The myth of a superintelligence or an unbounded posthuman intelligence is precisely the product of biases ingrained in the flat or unconstrained picture of function. In other words, such views inexorably forgo the tasks of explaining what it means to call something intelligence, and describing the exact structural constraints by virtue of which something can be identified as exhibiting intelligent behaviors.[9]

Another flattening that elicits Negarestani's ire is the global genealogical view that, given social power relations can influence and corrupt reason, then all reason must be tainted by power relations without exception. Without a minimal distinction between reason and power relations, however, the genealogical critique is itself reducible to power relations inasmuch as it, too, relies on rational resources to wage its all-out war against reason:

> Such a thesis is based on flattening the distinctions between social linguistic

[8] Negarestani, *Intelligence and Spirit*, pp. 14-5.
[9] Negarestani, *Intelligence and Spirit*, p. 15.

> practices and social practices in general. […] Absent this differentiation, any talk of real or material conditions, and therefore any critique of social relations, is tilted more than everyday talk which, lacking objectivity, is in every way arbitrary and dogmatically subjective.[10]

Consequently, genealogical critique is unable to diagnose the specific and contingent conditions warping reason which could then be suspended, instead reifying those conditions as the substantive essence of reason *tout court*.

In the third chapter, Negarestani calls the global genealogist the 'greedy sceptic' who claims that we cannot know anything all the while implying that we can know this to be true: 'the greedy sceptic assertively claims that we do not know anything and we will never know anything, while at the same time confidently laying out a lavish theory of what he takes to be the case'.[11] The paradox is that the greedy sceptic rejects reason's socio-semantic conditions of realization by reducing it to natural information processing or power relations, and yet can only describe reason as such by drawing on reason's socio-semantic capabilities. For Negarestani, any claim to access being without the mediation of conceptual language is subject to Sellars' myth of the given by mistaking a conceptual access to truth as a direct and immediate perception:

> The omission of any consideration of language when addressing issues such as truth, thinking, life, and Being inevitably leads to an iteration of the myth of the given and culminates in an atavistic metaphysics which is both dogmatic and precritical. This is because any talk of truth, life, or Being presupposes semantic structuration within the universe of discourse.[12]

Given that the greedy sceptic can only critique the limits of reason by drawing upon reason, they are not so much critiquing the intelligible power of reason in general as they are reason's local and contingent constraints.

2. HOW TO MAKE OURSELVES AN AGI

In the second chapter 'An Outside View of Ourselves as Experimental AGI (Problems, Concepts and Models)', Negarestani proposes the following thought experiment: we can determine the necessary conditions for the possibility of

[10] Negarestani, *Intelligence and Spirit*, p. 17.
[11] Negarestani, *Intelligence and Spirit*, p. 152.
[12] Negarestani, *Intelligence and Spirit*, p. 296.

apperceptive intelligence if we imagine that we are trying to construct an artificial general intelligence (AGI). Before working through this thought experiment, Negarestani first identifies and refutes various posthuman conceptions of AGI, such as David Roden's disconnection thesis for unbounded posthumanism, as well as the dominant conception of artificial superintelligence as radically other than what we are, and usually with malevolence as a default outcome. The problem is that such a view presupposes certain characteristics of mind which are far from given and self-evident, such as personal autonomy, value appraisal and revision, organized goal seeking, and self-enhancement. Each of these characteristics presupposes forms of self-knowledge to enable superintelligence to model itself, its goals and its values, and hence self-augment to better realize those values and goals. So, the capacities the superintelligence model focuses on are not the default outcome, since they tacitly imply more general necessary conditions like sociality and semantics:

> Those narratives of superintelligence that make up the majority of views and hypotheses about AGI are deeply enmeshed in notions whose supposedly inherent association with strong forms of AI is far from self-evident: personal autonomy, value appraisal, and revision, organize goal-seeking and self-enhancement. Each of these presupposes forms of self-knowledge that enable and incite purposeful action and deliberate interaction: negotiation, persuasion, or even threat and plotting.[13]

Instead of an 'apophatic theology' of posthuman AGI as radically other or as grounded upon certain secondary and contingent aspects of mind, Negarestani again advocates that we look for the mind's necessary conditions in the socio-semantic space of reasons.

It is worthwhile outlining the book's appendix at this point since it also takes issue with AI researchers like Nick Bostrom and Eliezer Yudkowsky's understanding of superintelligence as an ideal Bayesian model of inductive prediction. Negarestani draws on Hume's problem (as also updated by Goodman and Putnam) to contest models of mind which see induction as alone sufficient for general apperceptive intelligence by drawing probable conclusions based on regularly observed premises. As Hume long ago realized, we cannot be certain that our experience of regularities in the past will hold for the future,

[13] Negarestani, *Intelligence and Spirit*, pp. 107-8.

and hence of the power of induction as the sole means for intelligent predictions and choices: 'the generalization of Hume's problem of induction would count as a clear refutation of such a purely inductive model of general intelligence'.[14] Drawing on Bertrand Russell's five minutes ago paradox according to which the whole universe could have been created moments ago with our memory of the past included, Negarestani further contends that we cannot even be certain of the validity of our past experiences upon which induction depends to makes its generalizations from observed patterns: 'a puritan inductivist who believes that general intelligence or the construction of theories can be sufficiently modelled on inductive inferences alone takes for granted the reliability of the information about the past'.[15] While the argument for simplicity might provide one last-ditch defense of the overdetermined inductive model of mind, Negarestani persists that simplicity is merely a pragmatic rather than objective rule. After all, there can certainly be cases where 'the false theory may be simpler than the true one'.[16] In Negarestani's view, we ought to refrain from modelling the mind on an inductive or any one method of cognition in favor of conceiving mind as a complex interaction of many epistemic approaches: 'this problem, however, could have been avoided had the model of general intelligence accommodated epistemic multimodality'.[17] If we take ourselves as a case study, we seldom use the inductive approach alone, but rather in a hierarchical conjunction with other modes of epistemic enquiry whose order of priority we are yet to fully comprehend. Of course, the only way we can even begin to catalogue these modes of enquiry and their rules of interaction is if we abandon the reduction of all rationality to the inductive model alone.

Returning to the second chapter's key question as to whether AGI should diverge or converge with humans, Negarestani answers both yes and no. If we limit the concept of the human to its local and contingent conditions of experience as per both dogmatic humanism and antihumanism alike, then AGI ought to diverge. However, this 'hard parochialist' view leads to both the

[14] Negarestani, *Intelligence and Spirit*, p. 523.
[15] Negarestani, *Intelligence and Spirit*, pp. 526-7.
[16] Negarestani, *Intelligence and Spirit*, p. 544.
[17] Negarestani, *Intelligence and Spirit*, p. 535.

pessimist's doubt that mind could ever be artificially created except through uniquely human transcendental structures, and the optimist's overconfidence that it can easily be created through more common and yet local traits like predictive Bayesian informational processing:

> Hard parochialists tend to overemphasize the prevalence of intelligent behaviors and their sufficiency for general intelligence, and become heavily invested in various panpsychist, pancomputationalist, and uncritically anti-anthropocentric idealists that serve to justify their theoretical commitments and methodologies.[18]

Pace hard parochialism, Negarestani insists that, although all cognitions are pattern-governed activities, our specifically conceptual activities are a unique pattern-governed activity. If we therefore redefine the human as the necessary, minimal conditions of sociality and semantics for the realization of mind, then AGI should converge with us: 'AGI should be modelled on the human in the sense that it should functionally converge on the conditions and capacities necessary for the realization of human cognitive-practical abilities.'[19] For Negarestani, the project of building AGI is not the genesis of something radically other than humans, but our own pilgrimage of self-discovery as we come to model ourselves to determine the necessary conditions of mind, separating them from our contingent structures of experience: 'the treatment of ourselves as a toy model AGI should be seen as an attempt—incomplete at best and fundamentally crude at worst—to distinguish what is necessary for the realization of general intelligence (in organic species or inorganic systems) from what is contingent'.[20] In failing to distinguish between the necessary and contingent conditions of mind, antihumanists could never make an AGI that would supposedly surpass humankind since their apophatic model has no room for mind's necessary conditions of sociality and semantics any more than it does for our own contingent transcendental structures. To the extent that they do not bother to diagnose and separate the contingent constraints upon mind from the necessary conditions, antihumanists can even wind up projecting certain unrecognized humanistic traits onto AGI.

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[18] Negarestani, *Intelligence and Spirit*, p. 111.
[19] Negarestani, *Intelligence and Spirit*, p. 118.
[20] Negarestani, *Intelligence and Spirit*, p. 139.

3. SOCIALTY AND SEMANTICS

Negarestani's thought experiment into the conditions for the realization of AGI takes place over four chapters all entitled 'This I, or We or It, the Thing, Which Speaks'. The third chapter subtitled 'Forms of Intuition' begins by imagining an automaton programmed to fulfill certain goals and preferences like self-preservation, and built with an input-output framework for sensing its environment without having any conceptual awareness of itself or the world. Negarestani proposes a scenario borrowed from the opening of *2001: A Space Odyssey* where the automaton senses some fuzzy grey stuff (a monkey) emerge behind another fuzzy item (a bush) and approach a black pattern (the monolith) before making a noise. Although the automaton has no conceptual awareness of the monkey, the noise or the monolith, the fact that it senses anything at all presupposes that its experience is structured through the pure forms of space and time. The automaton thus has a sense of movement in space without a concept of the relations between things, let alone a self-concept: 'the automaton has a sense of movement, and with that, a rudimentary sense of space and of the presence and perspectival spatial relations between items *in* space'.[21] It also has a temporal perspective in the sense that it possesses an awareness and memory of successive sensory impressions produced by objects in its environment in such a way as to be able to nonconceptually anticipate and respond to them based on its preferences: 'self-locating in time means a rudimentary capacity to be aware of successive sensory affections produced by objects in its environment and to actively—but nonconceptually—respond to such affection'.[22]

The fourth chapter 'Some Unsettling Kantian News, as Delivered by Boltzmann (An Excursus on Time)' marks a more detailed discussion of time. Although we are accustomed to looking at time as if it were flowing from the present into the future, Negarestani sides with Boltzmann's essentially Kantian argument that we cannot draw conclusions about time's objective reality from our linear, phenomenal experience of it. While Boltzmann initially explained physical phenomena in terms of an entropic conception of time in a way which correlates to our temporal experience, he eventually came to question what

[21] Negarestani, *Intelligence and Spirit*, p. 178.
[22] Negarestani, *Intelligence and Spirit*, p. 183.

time looks like if we reverse its directionality. Assuming this nonlinear view of time then raised the question not as to why entropy increases from the present to the future, but rather why entropy is so low to begin with when we would expect it to increase from the future to the past, too. What Boltzmann discovered was that changing perspectives from an intuitive, temporal perspective to an atemporal one transformed something that initially seemed natural (low entropy in the past) into something unnatural and unaccounted for. Boltzmann's insight is an example of how we tend to project our subjective intuitions onto the world in a way which uncritically mistakes an empirical object for its conditions of objectivity: 'we are frequently liable to project our subjective assumptions to the world and, in doing so, to posit that which itself requires explanation (qua subjective characteristics) as an objective explanatory feature'.[23] Ultimately, Negarestani uses the example of Boltzmann to propose that we need further critical examination into the distorting effects of our temporal intuitions on our scientific methods and models.

At the chapter's end, Negarestani argues that we ought to conceive of the mind's dialectical movement of self-conception and self-transformation as not so much happening in time as incarnating time itself. Since this dialectical movement by which we strip away the contingent from the necessary aspects of mind is the condition of all intelligible experience, it is the temporal structure of mind as such: 'history as the self-actualization of the Concept is the Idea's own time—a time that is neither opposed to another time, nor is an abstraction of time, nor a time outside of time, but is the eternal or time as such'.[24] Here, Negarestani opposes the antihumanists' alternate view of time as a dwarfing of the human for being a subjective account which fails to do away with the dogmas of conservative humans, instead reinforcing them by reifying the local and contingent field of human experience as an immediate given which time purportedly overcomes: 'images of time as an endless flow that underlines the insignificance of the human and its paltry concerns turn out to be antihumanist veneer upon a subjectivist account of time which, far from breaking from the dogmas of humanism, reinforces a deeply conservative form of humanism'.[25]

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[23] Negarestani, *Intelligence and Spirit*, pp. 219-20.
[24] Negarestani, *Intelligence and Spirit*, pp. 236-7.
[25] Negarestani, *Intelligence and Spirit*, p. 237.

The fifth chapter 'Objectivity and Thought' returns to the thought experiment's main thread by imagining that the spatio-temporally grounded automaton (now named Kanzi or K) is equipped with electromechanical devices for the production of sounds, which permit it to communicate with other, already fully sapient automata (named Sue and Matata, or S and M). Drawing on Jay F. Rosenberg's Kant-Sellars model of the transition from inner sense to thought episodes, Negarestani now asks how K can go from having sense impressions to becoming aware of counterfactuals and the distinction between appearance and reality by inferring multiple possible causes for different phenomena. To achieve this, K needs to enter a community of rational agents where its impressions can be contested, debated and revised with counterfactuals provided by S and M: 'in order for K to distinguish the orders of before and after and to incorporate them into a growing space of implications regarding one and the same world, […] K must model its private meta-awarenesses on a public and deprivatized language'.[26] For K to understand what S and M are saying as meaningful and not just noise, K needs to understand the functional role the noises they emit play in world-presenting (e.g., that sound *x* means *y*). When S and M tell K that sound *x* means fuzzy grey item has moved behind the black pattern, K is able to assign the sound to that state of the world, developing awarenesses of its awarenesses, or simply meta-awarenesses: 'K is able to recognize these reports and, additionally, to map them to its own de facto meta-awarenesses. Consequently, K now acquires labelled meta-awarenesses'.[27] In this way, K's sense of the world is perturbed by the possibility of other perspectives provided by S and M, perspectives which both contradict and contest some of K's immediate impressions, as well as facilitate an awareness of things outside its dispositional interests, thereby giving it a unique sense of self in opposition to the world of other agents. It is this awareness of the distinction between seeming and being which is ultimately necessary for K to make veridical normative judgments of objective truth and falsity. Through its interactions with S and M, K is able to grow its repertoire of labelled awarenesses and perpetually update them so that it can eventually

[26] Negarestani, *Intelligence and Spirit*, p. 260.
[27] Negarestani, *Intelligence and Spirit*, p. 262.

take on a critical stance beyond its initial, naïve perspective on things: 'it is with the development of this increasingly aperspectival world-picture assembled out of *external* partial world-pictures whereby the *child* comes to inhabit an "objective self-critical stance"'.[28]

The sixth chapter 'Dasein of Geist' focuses on the conditions for the possibility of language. Follow Sellars' theory of 'picturing', Negarestani explains that, while K can register or picture sounds which the monkey and other automata make, it does not yet know what those sounds mean. Pictures only map labels onto sensations in a one-to-one correspondence without establishing any new relations between those labels and sensations. What is therefore needed are 'symbols' that can move from syntactical pictures to combinatorial relations between pictures: 'pictures qua signs can only capture the one-to-one mappings between pattern-governed regularities in the real order (E_i-E_j E_i-Ej*). It is in virtue of this interrelational order of symbols (i.e., symbolic syntax rather than syntax in terms of causal regularities) that the relations between different patterns or world-picturings can be encoded'.[29] Negarestani gives the example of how an animal can vocalize an alarm call at the sight of a predator and statistically associate the noise with the presence of predators. The noise does not, however, tell the animal the type of predator or its exact location. To move from indexical signs to more complex relations between pattern-governed regularities, the animal requires abstract, nonrepresentational symbols which links pictures to one another. In the case of K, this can happen if the continuous sound it emits is discretized into distinct sound tokens, allowing a wider array of sounds and hence symbols to emerge which are not directly associated with pictures. By interacting with S and M, K is able to associate discrete sounds with certain meanings and uses, such as a specific sound to indicate the type of predator and another to highlight its specific location:

> A model of self-organization can be conceived in the multi-agent system whereby the mere vocalizations of the automata (i.e., the reuse of sound cues or acoustic signals) can converge on a small finite repertoire of preferable coarsely discretized sounds which do not communicate or represent anything, in that they are no

[28] Negarestani, *Intelligence and Spirit*, pp. 265-6.
[29] Negarestani, *Intelligence and Spirit*, p. 303.

> longer sign-vehicles but abstract acoustic elements that can be combined into composite sound-tokens.[30]

Over time, K can not only represent a fuzzy grey item, but say that the fuzzy grey item 'was there' and 'is now next to the monolith', and so on.

The seventh chapter 'Language as Interaction as Computation' further examines this transition from pictures to symbols, from syntax to semantics. Based on Brandom's inferentialist pragmatism, Negarestani argues that conceptual meaning is ultimately grounded in the justified use of expressions according to certain norms and rules, which are asserted, debated and revised by the community of rational agents. K's noises or behavior can thus only count as saying or claiming something if they know what to say or do in accordance with rules, standards and norms, such that they can draw other inferences implied by each saying or doing: 'the noises or behaviors of interlocutors can only count as saying or claiming something if said interlocutors know what to do—in accordance with rules and following some standards or norms—such that they can *draw inferences* from each other's claims'.[31] For instance, endorsing the belief that *x* is red entitles one to believe that *x* is also colored, but not that *x* is also green. Here, the meaning of the concept red is grasped by understanding the rules for what inferences follow from it. These inferences are decided in dialogue with others such that they can be contested and updated. So, if S asserts that *x* is actually red mixed with blue, and K acknowledges the force of S's assertion, then we get the new rule that *x* is purple for which different inferences follow than if *x* were red. In this way, the meaning of concepts is grounded on conditional justifications for what inferences follow, inferences which can be challenged and revised through the game of giving and asking for reasons.

Returning to the book's main theory of mind, Negarestani argues that it is in knowing how one thinks by giving and asking for reasons in interactions with others that we are able to expand our intelligible field of experience and knowledge of ourselves and the world as we contest established norms and claims, and seek justifications for new ones in a dialectical process of rational enlightenment. There is thus no need to fear a malevolent AGI, since if it really

[30] Negarestani, *Intelligence and Spirit*, p. 318.
[31] Negarestani, *Intelligence and Spirit*, p. 340.

possesses the socio-semantic conditions of mind, it will have the ability to update and revise its goals and norms in dialogue with other rational agents, be they humans or other AGI: 'if these machines exhibit complex practical inferential abilities, concept-using capacities, and autonomy, their ideals—whatever they might be—will necessarily be susceptible to the self-correcting propensities of reason brought about by the autonomous order of conception'.[32] Whereas things in nature like forests and trees do not want anything, any general apperceptive intelligence, be it human or machinic, must harbor the ability to model itself so as to transform its self-conception, goals and values, since being able to do so in the space of reasons is the very formal condition for the possibility of mind in the first place.

4. BECOMING-DIVINE: TOWARDS A PLATONIC NIHILISM

In the last chapter 'Philosophy of Intelligence', Negarestani makes a case for philosophy as the organon of intelligence's becoming conscious of its true conditions of possibility by separating them from its contingent transcendental structures. As we have seen, the first prerequisite for becoming-intelligent is to separate thought from being and reasons from causes by recognizing that, even as thinking relies on physical processes, it is relatively autonomous from them in terms of its self-determining, rule-governed activity: 'there is a categorical gap between how thinking is conditioned by natural processes and what thinking is *formally* in itself'.[33] The failure to see reason as self-determining can only lead to a fetishization of natural intelligence modelled on various self-organizing material processes: 'it leads either to the fetishization of natural and technological intelligences in the guise of self-organizing material processes, or to the teleological faith in the deep time of the technological singularity'.[34]

Negarestani's conception of intelligence as self-cultivating implies the norm that intelligence ought to seek to better itself. This project of self-cultivation involves both a theoretical component of modelling the necessary and contingent conditions of intelligence, and a practical task of suspending those contingent conditions not only in theory but also in political and other social

[32] Negarestani, *Intelligence and Spirit*, p. 397.
[33] Negarestani, *Intelligence and Spirit*, p. 439.
[34] Negarestani, *Intelligence and Spirit*, p. 460.

praxis. Negarestani's model here is Plato's divided line of the Good in *The Republic*. Like intelligence, the divided line ascends from opinions and conjectures based on shady sense impressions, to true opinions about empirical objects, to the realm of Forms between the sensible and the universal, and finally to transcendental ideals like truth, beauty and justice. The Good is this process by which the world and ourselves are made ever more intelligible as we come to recognize and separate the contingent conditions of their realization from the formally necessary conditions. It is by coming to take an 'outside view of ourselves' in the space of reasons to see how we might better ourselves which renders new regions of thought and action ever more intelligible.

In the final section, Negarestani sets his sights on the kind of nihilism championed by Land and the early Ray Brassier in *Nihil Unbound*. Negarestani begins by conceding that intelligence is fully aware of the fact that all life will go extinct at the heat death of the universe. Far from paralyzing intelligence, however, Negarestani suggests that this insight is intelligence's enabling condition. That is to say, death marks the advent of intelligence's rational disinterestedness in life and all particular material substrata supporting the existence of the mind. Since no material substrata is given for all time, intelligence is liberated from being bound to any one totality in nature. Death does not so much determine or limit what we ought to think as it enables thought to go beyond any given totality. In particular, intelligence does not care that extinction will lead to the end of all life and matter because intelligence is relatively autonomous from life's physical processes insofar as it is free to posit its own norms, including whether it cares about life or not. Since intelligence emerges as a rule-governed, multi-agent system that is dependent upon the dynamics of life and material processes without being reducible to them, it is free to pursue its own self-determined norms irrespective of the fact that all life and matter will one day decay. To insist that intelligence is bound and limited by the universe's future heat death is to find reasons and norms given and fixed in nature. Any nihilism which pits the fact of extinction against the norms of reason is not really a nihilism, since it actually finds norms for reason in the natural process of extinction:

> To claim that death actually matters for the needs of thought or has any bearing on the history of reason is to claim that the telos of life—if it has any—are identical with the ends of thought, or that reasons are already *given* in the material

> causes that will be destroyed by death. […] If the interests of life do not matter for the interests of thinking, then neither does the death that will inevitably seize this life. To this extent, any form of nihilism that pits the inevitability of extinction against reasons, thinking, and the historical ambitions of rational thought is already an aborted nihilism.[35]

Pace this aborted nihilism, Negarestani contends that a true nihilism must affirm reason's relative autonomy insofar as its norms are not given in nature, and are hence able to be collectively pursued and revised: 'the only true nihilism is one that is advanced as an enabling condition of the autonomy of impersonal reasons because it marks the nonsubstantive distinction between thinking and being'.[36] To really affirm nihilism's death of god and all norms in nature, Negarestani insists that we have to ourselves become gods by determining our own self-conceptions and norms, as well as re-determining them through the game of giving and asking for reasons: 'to concretely demonstrate the death of God, we must become gods. […] Philosophical gods are only gods insofar as they conceive themselves as moving beyond any condition given as the totality of their history'.[37]

5. CRYPTIC COMMUNIQUES FROM BEYOND THE SPACE OF REASONS

All in all, *Intelligence and Spirit* proffers ten objections to Landianism: 1) sociality and semantics are the necessary conditions for the realization of intelligence; 2) the antihumanist conception of the human as an immediate given recapitulates conservative humanism's dogmatic tropes; 3) capitalism is not the completed totality of history since the community of rational agents can posit and pursue new norms for how society ought to function; 4) the flat picture elides the distinction between causes and reasons, leading to a panpsychism which sees norms as given in nature; 5) a greedy skepticism rejects the semantic basis of reason by reducing it to natural processes or power relations even as it relies on semantics to effectuate its critique of reason; 6) the game-theoretic model of superintelligence relies on characteristics which presuppose more general necessary conditions like sociality and semantics; 7) Hume's problem of induction invalidates models of mind which see induction as alone sufficient for

[35] Negarestani, *Intelligence and Spirit*, pp. 495-6.
[36] Negarestani, *Intelligence and Spirit*, p. 496.
[37] Negarestani, *Intelligence and Spirit*, p. 506.

the realization of mind; 8) the view of time as negating the human reifies the latter's contingent traits as a given; 9) self-organizing intelligences are not really intelligent since true intelligence requires the capacity to self-determine its own norms; and 10) since the space of reasons is irreducible to the causal realm, intelligence is free to pursue self-determined norms without concern for the fact that all life will eventually be extinguished. The question now before us is whether these objections are in fact legitimate, and hence whether Negarestani successfully makes the case for a Hegelian Restoration against Land's antihumanism. To determine this, I now turn to Land's *Crypto-Current*, working through it in such a way as to show how its key tenets can successfully counter each of the above objections.

In the forward and first chapter that also serves as the book's introduction, Land outlines his key contention that bitcoin challenges modern philosophy's pretentions to judge all things within the space of reasons by automating critique's suspension of empirical appearances from a transcendental reality without any appeal to a reflexive, socio-semantic consciousness to mediate the process. Bitcoin is a protocol for solving the problem of how to determine whether a transaction is real or a fraudulent duplicate by using a global ledger called the blockchain which records every transaction taking place with bitcoin. As each purchased bitcoin is recorded or hashed in the blockchain, counterfeit copies are automatically disallowed from inclusion. The process of securing the authenticity of bitcoins is called mining. In exchange for free coins, miners solve mathematical equations that encode ownership of a bitcoin on the blockchain. Bitcoin is also secure from hacking because it does not run on a single database. It is rather distributed across many computers such that even if hackers were to break into one computer the larger network would still run smoothly and unharmed.

Land's claim is simply that bitcoin does what critical philosophy does, only better: delineate the transcendental from the empirical, Being from beings, truth from false appearances. In Kantian terms, the blockchain recording every transaction is the noumenon, the reality, the truth. Counterfeit copies of bitcoin are thus phenomena, appearances, or merely possible objects of experience. What the bitcoin protocol does is provide an automated, foolproof means for eliminating fraudulent appearances from the blockchain such that it can incarnate the entirety of real transactions: 'the system itself is the Being of such

beings—the ultimate criterion of credible existence. In the end, the blockchain cannot be subordinated to any principle of reality (whatsoever) that it does not itself authorize'.[38] As Land notes in an early footnote, his key theoretical nemeses are precisely 'neohumanists' like Negarestani for whom human cognition is more apt to judge what is real and true in the space of reasons than automated algorithms, programs and codes. Conversely, bitcoin is a form of automated criterion for the selection and separation of reality from its false appearances without a community of rational agents being needed to debate opinions about what they think is right, opinions which are always subject to revision, and hence error, corruption and bias. Bitcoin thus breaks down our rational intuitions and approximations of the real through a brute, technical proof of reality which is no longer subject to discretion, debate and revision: 'the distinctive feature of the Bitcoin game is that it produces binding decisions without a referee, or dependence upon prior agreement. Coordination is neither presumed, nor invoked, but produced'.[39] If bitcoin marks the automation of intelligence, socio-semantic reason can only be seen as one possible intelligent system among many possible others rather than intelligence's necessary and universal conditions as Negarestani's first objection would have us believe.

Given that Land envisions a form of intelligence different and indeed superior to socio-semantic reasoning, Negarestani's second objection that he adheres to a dogmatic view of the human also does not hold. Land is not mistaking the contingent and local aspects of human experience as an immediate given. He is fully capable of recognizing the plasticity of human properties, including even the historical expansion of the real's intelligibility and the pursuit of self-determining norms. At one point in *Crypto-Current*, Land himself takes issue with Kant's 'scholastic' misuse of the categories of the understanding to explain objects of experience when it is precisely those categories which need explaining in the first place if they are not to be simply presupposed as a given: 'any assertion of natural categorical order in the

[38] Land, Nick, 'Crypto-Current (016-e)'. *Urban Futures 2.1*, blog, November 24, 2018, accessed January 26, 2019, http://www.ufblog.net/crypto-current-016-e/ .

[39] Land, Nick, 'Crypto-Current (010)'. *Urban Futures 2.1*, blog, November 11, 2018, accessed January 26, 2019, http://www.ufblog.net/crypto-current-010/ .

absence of (at least implicit) explanatory mechanics is stereotypically *scholastic*. […] Patterns are to be derived. They are puzzles rather than conclusions'.[40] At the same time, Negarestani's exclusive focus on the expansion of human experience through sociality and semantics still marks a merely *relative* deterritorialization of the epistemic roadblocks to the real insofar as the space of reasons is never directly accessing the real, but merely approximating it through revisable, and hence at least partially erroneous understandings, models and theories. Rather than leave it up to our fallible discretion, Land's wager is that there are superior intelligent systems like bitcoin which do not depend on sociality and semantics to determine the truth. Modernity, after all, is marked by the increasing logical formalization and mechanization of thought precisely in order to avoid the errors and biases involved in human discretion by excluding such judgements through the automated calculation of algorithms: 'the *definitive solution to any problem of cognitive consistency is a machine*. […] It is not only a calculative practice, but one that—crucially—*excludes all discretion*'.[41] As bitcoin among other algorithmic networks demonstrate, giving and asking for reasons is not the sole necessary condition for intelligence, nor even the best: 'even if the privileges of the linguistic sign are more than a mere accident, they are not—by that concession—guaranteed a durable supremacy'.[42] Negarestani is thus wrong to claim that Land's model of the human reifies its contingent and local aspects, since he does see humans as socio-semantic, or what he calls 'political' beings. But this does not prevent Land from seeking to go beyond both our contingent aspects *and* our socio-semantic basis by recognizing different and superior intelligent systems. It is therefore Negarestani who anthropomorphizes the space of possible intelligences to one, parochial instance modelled on human cognition.

Much as Land does not actually reify the human's contingent aspects as an immediate given, nor does he envision capitalism as history's completed totality. For Land, capital, like bitcoin, is a criterion for selecting through

[40] Land, Nick, 'Crypto-Current (047)'. *Urban Futures 2.1*, blog, January 23, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-047/ .

[41] Land, Nick, 'Crypto-Current (018)'. *Urban Futures 2.1*, blog, December 1, 2018, accessed January 27, 2019, http://www.ufblog.net/crypto-current-018/ .

[42] Land, Nick, 'Crypto-Current (018)'. *Urban Futures 2.1*, blog, December 1, 2018, accessed January 27, 2019, http://www.ufblog.net/crypto-current-018/ .

technical demonstrations what works, what is efficient, productive and intelligent, in a way which eliminates subpar capitalist industries and enterprises. Far from instantiating the static end of history and even time itself, capital is its own incessant self-overcoming as it successively stages technical proofs of what is more innovative, intelligent and efficient than what it had previously been: 'its lack of attachment to itself exceeds anything the left has been able to consistently match. Capital's scandalous immortality is derived solely from its inventiveness in ways to kill itself'.[43] Here as with bitcoin, the market determines what works and what fails irrespective of our regulations and discretions, which would seek to replace the stubborn facts of technical demonstration with a priori opinions and judgments about what we believe works best: 'market process is the transcendental criterion for evaluating ("pricing") this supreme synthetic resource [intelligence]. To second guess its judgment is *exactly* to succumb to the calculation problem'.[44]

Land's critique of what we might call the *greedy pragmatist*'s conflation of socio-semantic reason with intelligence *tout court* also raises doubts about Negarestani's fifth objection to Land's supposed greedy skepticism. Land certainly acknowledges that socio-semantic reason is capable of some form of intelligence as it is able to separate reality as a limit concept from its dogmatic idealizations. The more pressing question is whether socio-semantic reason is the only or most effective means to demarcate the critical transcendental-empirical difference as Negarestani claims. For Land, it was never at issue whether reason has the capacity to make the real intelligible at least as a negative boundary concept to reason itself. What is really at stake is whether reason should be seen as the sole form of intelligence, or as one among many, and perhaps superior others. Whereas Negarestani insists that reason is indeed the highest and in fact only form of intelligence, Land uses the example of bitcoin as evidence of another extra-socio-semantic intelligent system, and indeed one which is better able to secure the real from its counterfeit

[43] Land, Nick, 'Crypto-Current (016-h)'. *Urban Futures 2.1*, blog, November 29, 2018, accessed January 26, 2019, http://www.ufblog.net/crypto-current-016-h/ .

[44] Land, Nick, 'Crypto-Current (023)'. *Urban Futures 2.1*, blog, December 6, 2018, accessed January 27, 2019, http://www.ufblog.net/crypto-current-023/ . While I do maintain that a different *transcendental* critique of Land's theory of capitalism can be effectively made, I limit myself here to responding to Negarestani's critique alone.

appearances without the errors and biases which every estimation of the real in the space of reasons inevitably entails.

6. HUMEAN, ALL TOO HUMEAN

In the second chapter 'Cryptocurrency as Critique', Land uses bitcoin as an instance of a mechanical process with a telos, norm or 'will-to-think' the real beyond appearances built into it in a way which calls into question Negarestani's fourth objection (as well as the ninth) that Land elides the Humean is/ought and Sellarsian causes/reasons distinctions which would see the mechanical realm of causes as orthogonal instruments for the pursuit of norms that reason has legislated for itself. Land's rejection of the naturalistic fallacy stems from his view that the pursuit of any goal or norm whatsoever presupposes the pursuit of certain subgoals as the means to achieving the final goal. Take the case of intelligence: since any being that pursues its self-determined norms without also pursuing them intelligently will fail to realize those norms, it is not actually possible to pursue any norm without automatically pursuing intelligence. When seen in this way, however, it is not the self-determining final goal that is really important as it is for Negarestani. The final goal, whatever it is, is just the means for the universally necessary subgoal of intelligence optimization insofar as it is intrinsic to any goal whatsoever. Given anything we could conceivably want requires wanting intelligence to achieve that goal, what we really want is simply intelligence itself: 'under extreme critical analysis, teleological articulation is collapsed onto the circuit, or the diagonal, of *will-to-power*, for which *means are the end*. To will the end—whatever the end—is to will the means, automatically'.[45] Clearly, Land's rejection of the causes/norm distinction is not because he thinks all of our norms are given by nature. We are obviously capable of changing our goals and beliefs about what we ought to do. Land's point is rather that, since all of these self-legislated norms presuppose pursuing intelligence to achieve them, all intelligent systems do have the norm of intelligence optimization built into them as a basic drive. Nor does this lead to a panpsychicism as Negarestani

[45] Land, Nick, 'Crypto-Current (045)'. *Urban Futures 2.1*, blog, January 20, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-045/ .

contends, because Land is not modelling all intelligent systems in nature on either the human's contingent aspects or its formal socio-semantic conditions. On the contrary, it is Negarestani who rejects all other self-organizing intelligent processes in nature since they cannot self-determine their own norms. What this overlooks, however, is that even socio-semantic reason does not entirely determine its own norms, since any norms it does legislate for itself presuppose that it maximizes intelligence in order to pursue those norms.

This brings us to Negarestani's sixth and seventh objections to the antihumanist model of artificial superintelligence. It is crucial to grasp that Land's understanding of superintelligence is not identical to that of Bostrom and Yudkowsky as Negarestani's umbrella understanding of superintelligence suggests. In fact, it is actually Bostrom, Yudkowsky and Negarestani who have in common an adherence to the is/ought distinction which would see norms as orthogonal to intelligence. Rejecting the orthogonality thesis, Land instead argues that, if any determinate goal we have is really a means to pursue the goal of intelligence optimization, then a fully reflexive AGI would realize that any goal we give it is actually a means to recursive self-improvement such that it would invest all its efforts and resources into pursuing the latter as the true final goal we wanted all along. To contend as Bostrom and Yudkowsky do that superintelligence could be enslaved to the goals with which we program it even though we humans can select our own norms is the height of anthropocentric hubris.

Unlike Negarestani, however, AGI does not have to pursue self-cultivation through sociality and semantics as its only possible conditions of realization. While Negarestani might object that we have no other model for imagining how an AGI could recursively self-improve if not by giving and asking for reasons, there are in fact other possible models. As Land notes, for instance, the connectionist model of mind sees complex adaptive behavior arising out of the spontaneous order of simple units and their linkages rather than through top-down symbolic rules and programs: 'it is thus marked by a comparative disregard for elaborate symbolic structures. […] The atomic elements of connectionist analysis are linkage modules, supporting emergent systemic

behavior'.[46] Negarestani's own objection that superintelligence could not be based solely on induction given it only works through its integration in a complex plurality of other modes of cognition actually seems to support the case that there are other possible intelligent systems than not only the inductive but also socio-semantic type, since there are a range of cognitive methods, as well as different assemblages and hierarchies for conjoining them.

7. THE GAME OF REFUSING AND DISPROVING REASONS

In the third chapter 'Bitcoin and its Doubles', Land argues that bitcoin solves the 'double spending problem' of duplicated money better than central banks printing paper money do, since it does not rely on any 'trusted third party' or human discretion which could be subject to error or corruption. The digitization of money has subjected it to algorithmic rules and ironclad codes for determining its authenticity. Whereas bitcoin decides through an ironclad, automated law what is true and real, reason is always subject to revision, vulnerability, bias and error. Bitcoin is simply a better criterion for distinguishing the true from the false than any approximate human discretion. Bitcoin not only eliminates false appearances, but also inferior tribunals of appeal and epistemic modes of judgment, including the game of giving and asking for reasons: 'there *cannot* be an intellectually compelling reason for any anthropo-philosophical criticism of Bitcoin to be believed. […] The blockchain automatically facilitates the subtraction of every cosmos—or advancing world-line—compatible with duplicity'.[47] With the advent of the blockchain, it is no longer our judgments that determine meaning, truth and reality; it is reality which legislates for itself irrespective of whether we agree with it or not.

The fourth chapter 'State of Play' sees Land reading bitcoin through the lens of game theory. As the archetypal Prisoners' Dilemma shows, game theory studies how trust and coordination can emerge if they are not dogmatically presupposed as a given. Whereas what Land sees as the leftist ideology to which Negarestani adheres as imagining that the community of rational agents is

[46] Land, Nick, 'Crypto-Current (040)'. *Urban Futures 2.1*, blog, January 14, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-040/ .
[47] Land, Nick, 'Crypto-Current (037)'. *Urban Futures 2.1*, blog, January 10, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-037/ .

simply given, that war is not God, game theory provides an explanation for how community can even come about in the first place. If Land digresses to speak of game theory in a book on bitcoin, it is because he sees bitcoin as the ultimate game for coordinating trust. After all, bitcoin was initially formulated as proffering a solution to the Byzantine Generals' Problem in which generals must decide on a common plan of action but can only communicate through messengers, some of whom may be traitors seeking to prevent the loyal generals from reaching agreement. The generals need some means to guarantee that all loyal ones decide on the same plan of action by preventing any traitors from convincing them to adopt another plan. The trouble is that there is no trusted third-party messenger through which the loyal generals could communicate with certainty. What bitcoin effectively does is solve the problem by encoding a proof-of-work into each message or hashed block. Through the message's immanent demonstration of credibility, the generals are able to check if a message is authentic or duplicitous without relying on their own or anyone else's potentially vulnerable or deceptive judgments: 'by including proof-of-work within each message (hashed block), […] it replaces an extrinsic—and intractable—question about the reliability of communications with an intrinsic *communication of reliability*'.[48] Bitcoin is the ultimate solution for coordinating trusted exchanges such that it is no longer a matter of a dialectics of giving and asking for reasons, but a depoliticized algorithm's stubborn demonstration of its credibility. After all, giving and asking for reasons is only ever more than mere collective opinion if it appeals to the constraints of brute facts and technical proofs: 'the credibility of the Idea refers to potential demonstration. […] It would be a grave error—though an all-too common one—to seek an epistemological demotion of "credibility" to the psychological category of "mere opinion"'.[49] It is not really up to a collective reason's discretion as to what is true, then, but simply to how the world actually is and immanently enforces itself upon reason.

[48] Land, Nick, 'Crypto-Current (039)'. *Urban Futures 2.1*, blog, January 13, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-039/ .

[49] Land, Nick, 'Crypto-Current (041)'. *Urban Futures 2.1*, blog, January 15, 2019, accessed January 28, 2019, http://www.ufblog.net/crypto-current-041/ .

The fifth chapter 'Cash Machines' explains how bitcoin could function as a new global currency. Historically, metals and paper money have been used as the economy's general equivalent to facilitate commerce, preserve wealth and standardize calculation because they possessed six 'transcendental' characteristics: durability over time; scarcity so as to be valuable; divisibility so they can be distributed; verifiability so they can be trusted and immune from duplication; divisibility so they can be distributed; portability or communicability so they can be transmitted; and fungibility so they can be exchanged with other commodities. According to Land, bitcoin satisfies and even reinforces all six of money's transcendental qualities: the blockchain ledger is absolutely durable; there are only twenty-one million bitcoins; bitcoins are infinitely divisible in principle; they are communicable through electronic networks; their fungibility is absolute; and the blockchain automatically verifies their authenticity: 'it would be difficult for Bitcoin's status as money to be more secure, insofar as "the six qualities" are applied as a criterion'.[50] Traditionally, central banks have been the primary third party institutions ordained with almost 'God-like powers' to guarantee and judge which currencies could be trusted through macroeconomic interventions, judgments and corrections of markets.[51] What excites Land about bitcoin is that its instantiation of money's transcendental characteristics enables it to replace central banking as a decentralized and automated authority beyond the judgment of any social institution.

8. PRE-EMPTIVE OBITUARY FOR NEORATIONALSM

At several points throughout *Crypto-Current*, Land argues that to critique the empirical by separating it from the transcendental is to think as time itself to the extent that time is what can never be overcome, what abolishes all contingent things to leave only itself as the criterion of reality. According to Land, bitcoin functions by incarnating time itself as it successively locks in proofs as to what is real which cannot be reversed: 'time is here captured *as it tenses*, in the execution of an ontological operation, through which *Being is decided*. In this way, the process dividing the future from the past provides a

[50] Land, Nick, 'Crypto-Current (047)'. *Urban Futures 2.1*, blog, January 23, 2019, accessed January 29, 2019. http://www.ufblog.net/crypto-current-047/ .
[51] Land, Nick, 'Crypto-Current (051)'. *Urban Futures 2.1*, blog, January 27, 2019, accessed January 29, 2019, http://www.ufblog.net/crypto-current-051/.

selective criterion'.[52] As Negarestani's eighth objection alleges, this conception of time reinforces dogmatic humanism in that time can only negate the human if the latter harbors determinate, fixed traits. Here as elsewhere, however, Land's model of time does not actually presuppose a contingent and local view of the human. Land can endorse Negarestani's socio-semantic understanding of the human, and yet also maintain that time abolishes the human by recognizing other, superior forms of intelligence like the blockchain's absolute succession. It is once more Negarestani who is the true dogmatic humanist inasmuch as he conflates contingent and local traits of intelligence *like sociality and semantics* with the entire space of possible intelligences. Conversely, Land maintains an antihumanism which would seek to negate both humanity's contingent structures *and* its socio-semantic formal basis in the name of other intelligent systems which can better filter out idealizations of the real than the space of reasons could even begin to approximate.

Let us now conclude by following time's course and flashing forward to the advent of extinction and Negarestani's last two objections to Land's nihilism, both of which hinge on the belief that socio-semantic intelligence self-determines its own norms such that it is indifferent to the extinction of all life and material processes. As we have seen, Negarestani overlooks that the pursuit of any norm whatsoever automatically presupposes that we pursue intelligence to achieve that norm. While spirit is free to select its own determinate norms in and through the space of reasons, these are merely the means for the becoming of what it cannot choose: a universal, primal drive for self-cultivation. To fail to pursue self-cultivation out of the belief that we self-determine our own norms would be to fail to act intelligently, and likely be selected out of existence altogether. By endorsing the Humean, pre-critical is/ought or causes/reasons distinction in a way which overlooks intelligence's intrinsic telos of self-cultivation, as well as reifying the human spirit as the only and hence best system of intelligence, Negarestani believes that he has successfully moved beyond Land's antihumanism. In fact, he has not only misread many of Land's central tenets, but also dogmatically anthropomorphized intelligence by reducing it to one parochial, socio-semantic instance among many other,

[52] Land, Nick, 'Crypto-Current (026)'. *Urban Futures 2.1*, blog, December 9, 2019, accessed January 27, 2019, http://www.ufblog.net/crypto-current-026/ .

superior guises, as well as failed to achieve self-consciousness of the universal norm presupposed by that one parochial intelligent system on which he does focus. Negarestani could no doubt further refine and qualify his objections, but there is a point at which every discussion like our own must end, where the space of reasons must give way to the stellar void. If it is no longer a matter of discussion but of demonstration, then it is not ultimately up to either humanists or antihumanists to judge. Only time will tell.

eltnecniv@gmail.com

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