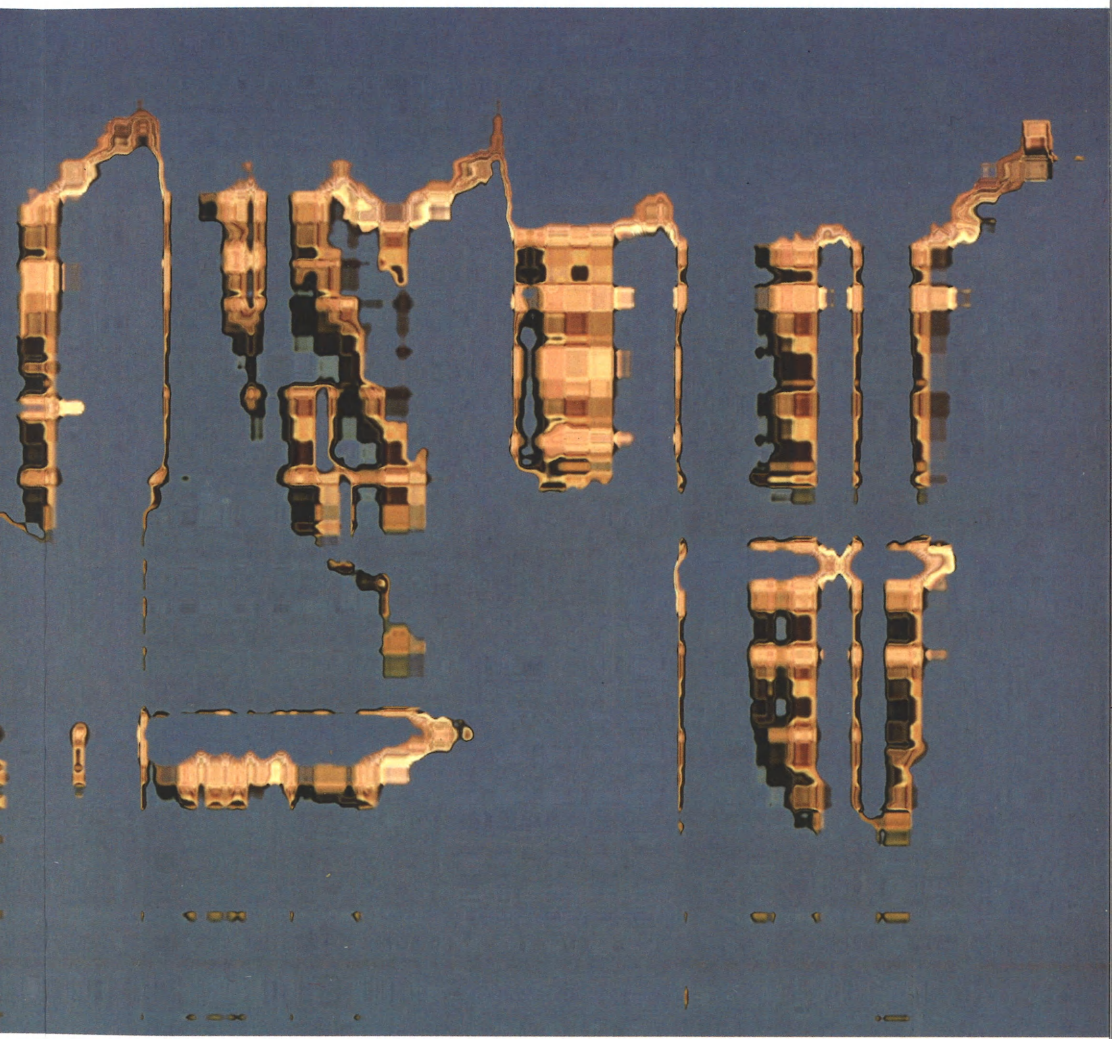REZA NEGARESTANI

Intelligence and Spirit

*Once self-relation concretely becomes part of the order of thought that
extends over into reality, nothing can stop the rise of intelligence.
All given truths, all achieved totalities, all traps of history begin to slowly vanish
like a spider's web baptized in a corrosive solvent.*

The history of philosophy conceived as the elaboration of a program for artificial general intelligence; intelligence understood as the impersonal and collective evolution of a thought that constructs itself according to a view from nowhere and nowhen.

In *Intelligence and Spirit* Reza Negarestani formulates the ultimate form of intelligence as a theoretical and practical thought unfettered by the temporal order of things, a real movement capable of overcoming any state of affairs that, from the perspective of the present, may appear to be the complete totality of its history.

Building on Hegel's account of geist as a multi-agent conception of mind and Kant's transcendental psychology as a functional analysis of the conditions of possibility of having mind, Negarestani provides a critique of both classical humanism and dominant trends in posthumanism.

This remarkable fusion of continental philosophy in the form of a renewal of the speculative ambitions of German Idealism, and analytic philosophy in the form of extended thought-experiments and a philosophy of artificial languages, opens up new perspectives on the meaning of human intelligence, and explores the real potential of posthuman intelligence and what it means for us to live in its prehistory.

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1. Between Conception and Transformation

IT *IS* ONLY WHAT IT *DOES*

This book argues, from a functionalist perspective, that mind *is* only what it *does*; and that what it does is first and foremost realized by the *sociality* of agents, which itself is primarily and ontologically constituted by the semantic space of a public *language*. What mind does is to structure the universe to which it belongs, and structure is the very register of intelligibility as pertaining to the world and intelligence. Only in virtue of the multilayered semantic structure of language does sociality become a normative space of recognitive-cognitive rational agents; and the supposedly 'private' experiences and thoughts of participating agents are only structured *as* experiences and thoughts in so far as they are bound up in this normative—at once intersubjective and objective—space.

In this cursory sketch the reader may recognise Hegel's characterization of *Geist* or Spirit.[1] Indeed, Hegel was the first to describe the community of rational agents as a social model of mind, and to do so in terms of its *function*. The functional picture of geist is essentially a picture of a *necessarily deprivatized* mind predicated on sociality as its *formal* condition of possibility. Perception is only perception because it is apperception, and apperception is only apperceptive in that it is an artefact of a deprivatized semantic space within which recognitive-cognitive agents emerge as by-products of a deeply impersonal space which they themselves have formally conditioned. The intertwining of semantic structure and deprivatized sociality enables mind to posit itself as an irreducible 'unifying point or configuring factor'[2]

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1   'The history of spirit is its own deed; for spirit is only what it does, and its deed is to make itself—in this case as spirit—the object of its own consciousness, and to comprehend itself in its interpretation of itself to itself.' G.W.F. Hegel, *Elements of the Philosophy of Right*, tr. H. Nisbet (Cambridge: Cambridge University Press, 1991), 372.

2   L.B. Puntel, *Structure and Being: A Theoretical Framework for a Systematic Philosophy* (University Park, PA: Pennsylvania State University Press, 2008), 275.

that extends into, encompasses, and integrates both consciousness of itself and consciousness of the universe. 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. It becomes an artefact or object of its own conception. Where there is the possibility of having a history, there is also the possibility of having not only the concept of the concept, but also a history of history—a critical transformation of mind as an object of its own concept, and the critical reconception of the object into which it has transformed. And once there is a history of history, there is the possibility of abolishing what is given in history or purports to be its consummate totality.

My aim in this book, however, is not to remain authentically faithful to the philosophy of Hegel, or that of German Idealism—or for that matter to any other philosophy or philosopher. Philosophy is 'its own time apprehended in thoughts',[3] and for a large part the activity of philosophizing consists in remodelling philosophical thoughts in accordance with the contemporary moment and its historical needs. To this end, my interpretation of any philosopher in this book follows what Jay Rosenberg calls a 'Dionysian approach'[4] which, in contrast to the Apollonian approach, does not abide by historical accuracy or result in faithful treatises, but instead sees the positive insights and theses of philosophies distortedly through the lens of the contemporary. The Dionysian approach then goes on to selectively but critically mutate, re-engineer, and integrate what it has thus distortedly viewed through the contemporary optic. It is not that the Apollonian approach is the preserve of self-disciplined scholars of history rather than the proper work of philosophers; it is as genuine an exercise in philosophy as Dionysian critical adventurism. In fact, it is a necessary requirement for the sustenance of Dionysian roaming; and the latter, in turn, opens up new terrains of thought to renewed Apollonian scrutiny.

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3   G.W.F. Hegel, *Outlines of the Philosophy of Right*, tr. T.M. Knox (Oxford: Oxford University Press, 2008), 15.

4   J. F. Rosenberg, *Accessing Kant* (Oxford: Oxford University Press, 2005), 2.

It is in this Dionysian spirit that the book examines and reconstructs the premises and conclusions of the functional picture of mind so as to build a philosophy of intelligence. As we shall see, mind is ultimately understood as the dimension of structure, or a configuring factor; something which can only be approached via an essentially deprivatized account of discursive (linguistic) apperceptive intelligence. The nature of this investigation and reconstruction originates as much from the viewpoint of contemporary philosophy as from that of the cognitive sciences—specifically, the programme of artificial general intelligence (AGI) or human-level AI, and contemporary philosophy of language as an intersection between linguistics, logic, and computer science.

In tandem with the Dionysian approach, the tone, pace, methods, and objectives of the chapters necessarily vary. All in all, this book is a rudimentary attempt to undertake the urgent task of presenting a philosophy of intelligence in which the questions of what intelligence is, what it can become, and what it does can be formulated. In the context of a philosophy of intelligence, this book also attends to the crucial question of what it means for us—humans—to remain faithful to what we are, to remain intelligible at least to ourselves here and now, and in doing so, to become part of the veritable history of intelligence.

The present chapter, which is more of a preamble—a rough sketch—provides an outline of a functionalist and deprivatized account of mind, or *geistig* intelligence,[5] setting down premises that will be spelled out and elaborated more conclusively in the chapters that follow. Introductory yet densely compressed, this chapter encapsulates the overall content of the book. Subsequent chapters unpack this content, at times in a plain demonstrative manner, on other occasions by taking it to its not-so-explicit conclusions.

Chapter 2 begins with an inquiry into the necessary conditions for the realization of geistig intelligence in the form of a program of artificial general intelligence, *as if* what we were really doing was attempting to construct an

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5   *Geistig*: of the Mind or Spirit, spiritual. I have deliberately chosen to use the word *geistig* rather than *spiritual* so as to avoid any mystical, supernatural, transcendent, or theological connotation (no doubt to the dismay of Hegel).

artificial general intelligence. A conceptual framework will be proposed for conducting this *as if*-thought experiment. Our main objective is not to investigate the possibility of constructing an artificial general intelligence or to review the popular narratives of posthuman superintelligence, but to think about AGI and, even more generally, computers, as an outside view of ourselves. This is an objective labour, so to speak, whereby AGI or computers tell us what we are in virtue of what we are *determinately* not—i.e., contra negative theology or the uncritical and merely experiential impressions of ourselves. This objective picture or photographic negative may be far removed from our entrenched and subjectivist experience of ourselves as humans. But this rift between the outside view and the experiential impression is exactly what heralds the prospect of future intelligent machinery and a genuine thought of the posthuman.

On the basis of this thought experiment, chapter 3 sets out to investigate the conditions necessary for the possibility of having mind. In this chapter the focus is largely on what might be called the Kantian dimensions of the realization of the discursive apperceptive self (an experiencing and thinking agent), namely intuition, imagination, and a pure perspectival encounter with the world. Chapter 5 continues the mission of chapter 3, but with the focus shifted to the realization of the 'discursive apperceptive' aspects of geistig intelligence, moving from the realm of pure perspectivality to that of objectivity, where thought and beliefs have an epistemic status.

In between them, chapter 4 should be approached as a critical excursus that stirs things up somewhat, and prepares the conclusions reached by chapter 3 for their speculative extrapolation in the final chapter. Its focus is the question of temporality and forms of intuition (transcendental aesthetics) as the organizing factors of experience, a question whose proper formulation will lead us to a new perspective not only on experience but also on the model of the minded subject and the prospects of intelligence as time itself.

In chapters 6 and 7, which present the last stages of the thought experiment, we shall examine language as the dasein of geist, inquiring into its sociality and syntactic-semantic complexity in a vein that is much closer to theoretical computer science—with its capacity to integrate computation, mathematics, logic, and language—than to classical philosophy of language

or social-communicative philosophy of rationalism à la Habermas. This investigation will allow us to conclude our examination into the necessary conditions for discursive apperceptive intelligence, an intelligence which acts in conformity with time-general thoughts determined by the conception it has of itself.

In the eighth and final chapter, both artificial general intelligence and the functional deprivatized account of the mind are suspended (*aufheben*) in a form of intelligence which is at once philosophy and a craft of philosophy qua specific program of thinking that has no nature, but only a *history*: a model for a self-cultivating intelligence.

A final note: with respect to the distinction between analytic and continental philosophy—of which there is no trace in this book—I have gradually learned to become blind to this supposed divide. The ambitions of philosophy are far too vast and comprehensive for them to be pigeonholed into cosy compartments.

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If we were to outline the overall progression of the book in reverse order, as if we had already attained its ultimate conclusions, it could be formulated as follows: Philosophy as the organ of self-cultivation of intelligence is, in the broadest sense, a historical program for investigating the consequences of the possibility of thinking and having mind. The constitutive gesture of philosophy is critical self-consciousness, primarily the non-empirical consciousness of the possibility of thinking as a building block of theoretical, practical, and axiological significance upon which the systematic relations between intelligence and the intelligible can be elaborated, in theory and practice. However, the critical self-consciousness that brings about the possibility of philosophy in the above sense is itself the consequence of the realization of the order of conception or, more generally, self-consciousness as the *form* or logical structure of all thoughts. Yet the capacity to have thoughts or to inhabit the general order of self-consciousness itself depends upon the fulfilment of the conditions or positive constraints necessary for the realization of mind. Therefore, the speculative inquiry into the future of intelligence—understood as that which expands and acts on *intelligibilities*

pertaining to itself and to the world of which it is a part—begins with an investigation into the conditions necessary for the possibility of having mind. Whether framed as the program of artificial general intelligence or as a transcendental psychology, the examination of the *necessary* conditions for having mind marks out a *sui generis* form of intelligence whose process of maturation coincides with its understanding and elaboration of the link between intelligence and the intelligible. Becoming cognizant of this link is what counts as the genuine expression of self-consciousness as a task whose first milestone is intelligence's retrospective recognition of its own conditions of realization. Only once intelligence begins to systematically understand its place within the world as an intelligible unity, can it begin to concretely know what it is in itself and what it may become for itself.

The significance of the functional picture of geist is that it enables a thoroughgoing analysis of *essentially self-conscious creatures*: what activities, in what sorts of structures, are required in order to realize a self-conscious rational agent, or a community of such agents? It is the functional description of discursive, conceptual, and historical geist in the context of those activities that characterize it, but also constitute it in the first place. It sets forth a project wherein the theoretical and practical desacralization of the mind as something ineffable and given coincides with the project of historical emancipation and the disenthrallment of intelligence as that which both frees itself—piece by piece—from its local and contingent limitations (emancipation as a negative freedom from something) and treats whatever conception of itself it has arrived at, whatever task such a conception entails, as the milieu of an unrestricted attention and commitment (emancipation as a positive freedom to do something).

Characterizing discursive consciousness in an adequate functional context—rather than by reference to a predetermined structure or a meaning inherent in nature—makes it possible to identify those necessary conditions for the realization of mind as an intelligence that has not just a history, but a critical history (a history of history), not just a conscious self but, more importantly, a self that is the artefact of its own configuring or unifying Concept (*Begriff*). This is a self in which the distinction between the subject of conception and the object of the concept is *suspended*. Moreover, as will

be elaborated in subsequent chapters, this functional characterization offers insights into what it means to reorient consciousness and thought toward an emancipatory project, the core of which is the emancipation of cognition itself.

Before proceeding, it is crucial to add a brief note on the concept of suspension. Throughout this book, I have used the word 'suspension' or the verb 'suspend' as a common English equivalent for Hegel's *aufheben* or *aufhebung*, instead of the uncommon 'sublation' (from the Latin *sublatum*), which only captures a limited range of the connotations Hegel has in mind. *Aufheben* has four connotations depending on the context: (1) to lift up or to heave (*heben*) as if something is on or has fallen to the ground; (2) to pick up or actively seize something, which accentuates the previous connotation (*auf*-heben); (3) to preserve or retain something; (4) to cancel or abolish something, to remove or take out of action. Hegel's *aufheben* places the emphasis on the positive and negative connotations (3) and (4). For example, in the case of the pure introspective I, the I that appears to be immediate is in fact mediated by its relations with others; its immediate positedness (*Gesetztsein*) is the result of (i.e., is mediated by) the movement of positing (*Setzen*). Through *aufhebung*, the positive immediacy of the self-reflexive I is cancelled, while the determinate negativity that accounts for the difference between the immediate and its mediation (I and another I) is preserved. In other words, the identity of what appears to be immediate is abolished or taken out of action, whereas the difference between the immediate and its mediation (the opposition) is preserved. Accordingly, Hegel's *aufhebung* has both a temporal and spatial aspect: what appears to be immediate prima facie is taken out of action or postponed (the temporal aspect) only to preserve the difference between the immediate and its mediation on an elevated level (the spatial aspect), as in the suspension of Being and Nothing in the more stable Determinate Being.[6] Therefore, *aufhebung* is closely associated with the extended labour of determinate

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6   For more details on the logic of suspension as positive dialectic, see U. Petersen, *Diagonal Method and Dialectical Logic* (3 vols. Osnabrück: Der Andere Verlag, 2002), vol. 2.

negation, as opposed to the abstract or indeterminate negation that inadvertently ends up perpetuating the purported immediacy of the state of affairs it seeks to abolish.

A certain X appears to be the completed totality of the state of affairs. X might be the *human condition*, the manifest totality of ways in which we appear to ourselves as a species; or it might be *capitalism*, the putative totality of all social relations as transformed by the accumulation of value qua labour time. Through *aufhebung* the particular content of X is cancelled, but the difference between the immediacy of X and its mediation is retained. This allows us to see the cancellation of X not as a single punctual act that abstractly or totally negates the state of affairs, but as a development, the product of a positive labour of determinate negation that takes time. 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 naive 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 metaphysical account of totality whose immediacy is actual and which therefore, it is falsely assumed, can be abolished by an all-destroying and total negation.

In this respect, in addition to determinate negation, *aufhebung* is associated with Hegel's distinct concepts of speculation and reason. Speculation is to be contrasted with simple reflection, which is reflection through and on that which is allegedly immediate—for example, what it means to be human is often taken as something immediately present and thus left unexamined. Speculation rescues reflection from its pitfalls rather than annihilating it. Speculation can be grasped as a movement from the subjective to the objective, a movement that suspends the immediate element of reflection and, in doing so, incorporates reflection as the reflection of opposites, a developmental stage in speculation. In the same vein, Hegel's reason (*Vernünftige*) is distinct from Kant's reason, the faculty of concepts and judgements (*Vernunft*). Hegel's reason is a form of thinking that admits of the unity and identity of opposites (e.g., both finite and infinite, subject

and object, in their distinctness) and which, rather than operating externally on concepts, explicates the immanent operation of the Concept itself.

Lastly, although distinct from it, Hegelian suspension can be linked back to the Pyrrhonian sceptical *epoché* or suspension of judgment regarding non-evident propositions. What gives rise to *epoché* is equipollence or Pyrrhonian *isostheneia*—the idea that, for any proposition or property, its contradicting opposite or incompatible property can be put forward with equal justification. Hegel's *aufhebung* seeks to break from the stasis and practical untenability of Pyrrhonian scepticism by directly assimilating it into reason in such a way that scepticism is no longer idly opposed to reason but becomes a dynamic and productive vector of it—what Ray Brassier has called a 'dialectics between suspicion and trust'.[7] The phenomenal knowledge of geist can therefore be presented as a 'self-consummating skepticism'.[8] The assimilation of *epoché* into reason and its complete remodelling as the dynamic process of suspension and determinate negation then allows us to think of *epochs* or, more generally, the history of geist. In order to refine The *formal* figure of the human or the functional picture of the mind cannot be refined, nor can they shed their entrenched dogmas, without a rational scepticism about their status here and now, and how this status might as a matter of fact restrict the prospects of what mind or intelligence can be. Therefore, it is in this vein that what is introduced in

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7   R. Brassier, 'Dialectics Between Suspicion and Trust', *Stasis* 4:2 (2017), 98–113.

8   'This path can accordingly be regarded as the path of doubt, or, more properly, as the path of despair, for what transpires on that path is not what is usually understood as doubt, namely, as an undermining of this or that alleged truth which is then followed by the disappearance of the doubt, and which in turn then returns to the former truth in such a way that what is at stake is taken to be exactly what it was in the first place. Rather, the path is the conscious insight into the untruth of phenomenal knowledge, for which the most real is in truth merely the unrealized concept. For that reason, this self-consummating skepticism is also not the kind of skepticism with which a fervent zeal for truth and science imagines it has equipped itself so that it might be over and done with the matter.' G.W.F. Hegel, *Phenomenology of Spirit*, tr. T. Pinkard (Cambridge: Cambridge University Press, 2018), 52 (§78).

this book as the critique of the transcendental structure is suggestive of both the operation of Hegelian suspension and the productive incorporation of scepticism into the phenomenology of mind and into the transcendental project which sets out to investigate the functional picture of mind and the figure of the human.

The account of function that is attributed to the mind (as regards what it does, its *activities*) should and will be elaborated carefully. For now, it suffices to say that this is a normative 'rule-governed' account of function rather than a metaphysical one. The function of mind is structuration: conceptualization, rendering intelligible, making objective. The claim here is that there are no intrinsic functions in nature; all metaphysical functions are in fact modelled on normative activities of the mind. This point was already made very clearly by Kant in the context of 'as if' arguments: functions in nature are species of 'as if' *judgements*. For example, when we study the heart, it is in regulative analogy to practical reasoning that we say that 'the function of the heart is to pump blood'. But what we are actually doing is treating the heart as part of a whole (the circulatory system) in terms of means-ends relations: the causal role (means) of the heart is to pump blood in the circulatory system as its end. In accordance with the success or failure of this means-ends relation, which is a piece of practical reasoning, we can then talk about the function or malfunction of the heart (what it ought to do and what it ought not). So, in reality, what we are saying is that, in analogy to practical reasoning, it is *as if* the function of the heart is to pump blood.

So long as this 'as if' aspect is carefully posited and is not confounded with a constitutive judgement, it is not problematic to attribute functions to the activities of natural things. Moreover, functions can only be attributed to activities, not to things. Activities are specific, contextual, and domain-sensitive. Does a lump of clay or the planet Jupiter have a function? Any positive answer to this question risks infinite regress, in so far as it will no longer be possible to specify where the function ends.[9] Mind is not a *thing*: it *is* only what it *does*.

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9   Describing functions using the vocabularies of activities and domain-specificity has