the espousal of 'a fitting way of existing' represents a normative objective—an ideal of '*how* one ought to be'—it is a matter of adjudication, and thus of a conception crafted by reasons. It does not matter whether these intelligent machines aim for higher rewards and more efficient payoff activities. In having a conception of themselves, they seek a recipe for crafting a life that involves not merely instrumentalities but also a disciplined open-ended reflection on forms and the intelligibility of the good life for themselves.

What these machines take to be the most suitable way of living and the proper object of their pursuit is in reality a representation of what they take themselves to be. But what they take themselves to be signifies how they reason about how they appear to themselves and what seems to be the case for them. In other words, the aims and vocations of these intelligent machines are expressions of their particular model of rationality concerning what they are and how they should proceed. But no model of rationality is exempt from the demands and amendments of impersonal reason. Whatever or whoever develops a conception of itself becomes bound to the norms of treating itself according to such a conception. And whatever or whoever is bound to such norms is also bound to an impersonal order of conceptual rationality that makes possible the formation of norms, their ordering and revision.

Therefore, regardless of how and for what aims these machines reason, what norms they have, what objective they seek to achieve, their reasonings and by extension their ends now fall under the full influence of the very inferential-normative economy—or impersonal reason—that sanctioned them in the first place, and which now has the power to divert any conceived end and to place any norm in peril. To this extent, any artificial agency that boasts *at the very least* the full range of human cognitive-conceptual abilities can have neither indelible norms nor fixed goals—even if it was originally wired to be a *paperclip maximizer*, to amass as much reward as possible. In other words, 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.

Identifying them as an existential threat is therefore quite baseless, not because the intelligence in question is innocent until proven guilty, but because such a suspicion attributes a disproportionate amount of risk or for that matter benefit (as in the case of arguments for benevolent AGI) to something that is itself inherently historically contingent and susceptible to being transformed by the very principles that enabled it to form a conception of itself and to pursue objectives appropriate to such a conception.

In thinking and acting in accordance with what they take themselves to be—their self-conception—the automata effectuate a concrete transformation in themselves. But given that no conception or norm of thought and action is ever safe from the self-correcting tendency of impersonal reason, such actualized transformation will again become the basis for a new judgement, a new self-conception. This sequence of conceptions and transformations is what counts as the criterion for having a history, and whatever has a history rather than just a past has the propensity to drift from any fundamental or natural essence toward a future as the being of time in which all preconceptions and given totalities are washed away. This is what Hermann Cohen characterizes as a historical self-consciousness that takes the shape of a will fixated on the future coupled with a critical reflection on the transitory norms of the past and the present. Here, however, 'future' does not signify a conventional sense of futurity in which future is interpreted as the *not-yet*. Instead it expresses a conception of 'future' as an intelligible eternity or time in which all those given totalities, along with the transitory values of the past and the present that have falsely eternalized, are *no-longer*.[288]

In Cohen's terms, the correct knowledge of history requires the correct knowledge of time, which itself requires a thought that sets out from the future as the true being of time in which all achieved or given totalities are rendered *incomplete*. In this sense, a thought that sets out from the future together with a will oriented toward the future become the vectors

288 See H. Cohen, *Kants Begründung der Ethik*, and *Logik der Reinen Erkenntnis* (Hildesheim: Georg Olms, 1914).

of genuine conception and transformation. One opens up the space of possibilities beyond the given totalities or absolutized norms of the past and present, and the other works toward the concrete actualization of such possibilities, moving from the Concept to its full actualization or the Idea.

It is in the context of historical consciousness as a striving for more adequate self-conceptions and self-transformations, in conjunction with a thought that sets out from the future, suspending every seemingly natural order of things and in so doing disclosing the possible, that the automata arrive at conceiving the autonomous idea of making something better than themselves. This long journey for autonomy through which our automata arrive at what is good for them in accordance with what they take themselves to be and what is better than them—as the logical consequence of the idea of the good—was initiated by the liberation of the formal dimension as an autonomous basis upon which practical or concrete autonomy is built.

In other words, their striving for the better, together with their thought of the future as the possibility of going beyond all manifest or achieved totalities, coincides with the thought of bringing about something that goes beyond the totality of what they take themselves to be or appear to themselves to be. It is characteristic of any form of intelligence endowed with a history—a sequence of self-conceptions and self-transformations—and the consciousness of such a history, that it will begin to seek and ask for more intelligence. And the logical consequence of this tendency is inexorably the thought of making something better than itself.

Furthermore, the automata are now free agents. In possessing the capacity for self-conception rather than mere consciousness, they are constrained by what is objective. This objectivity is enabled by language on two interrelated levels: the interdependency of thinking selves (intersubjectivity as the process of subjectification), and facts about the world in its most unrestricted interpretation (theory as all the relations between structures and being). It is in *limiting* or constraining themselves by the objective—construed as another subject or external world—that they achieve concrete freedom, or what Hegel identifies as being with oneself

in the presence of the other in its all-encompassing sense.[289] Yet because the automata are now immersed in the apeiron of the formal dimension of thinking and to the extent that logical world-building is what stretches the expanse of possible discourses about objectivity, they are in principle capable of envisioning and making new worlds qua perceptual-noetic toys: Intelligence, after all, is that which makes new worlds rather than merely dwelling in its given world. It sees itself as that which tears asunder the habitual link between thinking and dwelling by hypothesizing what it would mean for it to inhabit the worlds it itself has crafted.

These are all transformations triggered like a chain reaction by the introduction of the semantic or conceptual order into the world of our automata. But perhaps the most radically transformative consequence of the ingress of language into this universe is that the automata's actions are now subordinated to ends and purposes which are not given in the immediate objective ends of actions themselves (i.e., their instrumentality in making specific things happen), but instead are time-general thoughts or ends belonging to the order of self-consciousness or self-conception.[290] In having a conception of themselves, their practical thoughts not only fall under such a conception, but also exhibit it in every situation and indeed are identical to it. This is the horizon of practical thoughts specific to the order of self-consciousness, in the sense introduced in chapter 1.

Within this horizon, practical intentions and actions have the quality of time-general thoughts which are not exclusive to this or that situation or end, but are ever-present in every situation and have ends which cannot be exhausted. In a nutshell, time-general thoughts are thoughts that express the conceived core of necessities, imperatives, ideals, and needs pertaining to the conception of the self: If we *take* ourselves *as* thus-and-so creatures or life-forms, then there are thoughts that invariably address the core concerns of such a conception of ourselves. These thoughts are the

289 A. Patten, *Hegel's Idea of Freedom* (Oxford: Oxford University Press, 1999), 43.

290 On time-general thoughts and their logical form, see S. Rödl, *Categories of the Temporal: An Inquiry into the Forms of the Finite Intellect* (Cambridge, MA: Harvard University Press, 2012).

background to all of our purposive actions. They suggest inexhaustible ends and purposes that are not given in advance by nature or god, but are the outcomes of having a conception of oneself, of being conceptually self-conscious. Time-general thoughts are those which specify ends that are not specific to transitory situations or particular circumstances and which are therefore inexhaustible by needs, desires, and preferences. Inexhaustible ends differ from finite ends, whose exigency disappears once they are attained and concluded by a particular action or pursuit. They are infinite ends under which all purposive actions and practical reasons toward finite or particular ends fall. By virtue of having time-general thoughts and inexhaustible ends, the practical order of self-consciousness is irreducible to time-specific wants, and cannot be explained by desires or preferences.

As geistig life-forms who have a conception of themselves, the automata no longer merely act intelligently in the sense that their purposive actions are not simply conditioned responses to specific situations—responses which are disconnected from one another. Put simply, their actions are not just means towards particular or finite ends which go away once satisfied. Instead, their purposive actions and practical reasons oriented toward specific ends start from the inexhaustible ends of time-general thoughts. In other words, inexhaustible ends are premises for their purposive actions and practical reasons, not their conclusions. Such ends *explain* what the automata purposively do, and order their actions into an intelligible practical unity. This intelligible practical unity expresses their self-conception, that is, what they take themselves to be and what they think they ought to do given what they conceive themselves as. Accordingly, the practical reasons and actions of the automata exhibit this intelligible practical unity as the conceptual-practical order of their self-consciousness as that which, in the end, belongs to the formal order and the unbound logical dimension of thinking over which phenomenological or even the posited metaphysical time has no *teleological* hold.

The purposive actions of the automata now originate from and are guided by a unified system of ever-present though revisable theoretical and practical truth-statements concerning what they are and what they ought to

do, their form, and the life that suits them. This system is held together by timeless or time-general thoughts—the good, beauty, justice, etc.—which express their Idea: that is, the full potencies of their self-conception for actualization, or the possible realizabilities of the conception they have of themselves. In short, their entire practical horizon and all of their thoughts about achieving specific ends are structured by and adapted to purposes which are neither given in the circumstances surrounding actions and practical reasoning, nor in the immediate ends which such actions and means strive to satisfy.

This adaptation to purposes is what underlines the concept of artificiality. Take for instance a farm versus a forest. It is not that a farm is beyond the milieu of the natural or that it violates the order of nature, but it is not exactly in continuity with nature either. Nature does not *want* anything, it has no conceived purpose or end. To claim that nature does in fact have a purpose is to fall into the dogmatism of precritical teleology and the given, to mistake the *modelling* of nature on *our* normative order of purposes and ends for what nature is in the absence of our implicitly normative thoughts about it. On the other hand, a farm is an artefact belonging to the kingdom of ends. It is moulded around a concept, governed by norms of what it should do given the purposes or ends implied by its concept. Since a farm is conceived as the source of sustenance for people, it *ought* to yield more crops, it *ought* be tended, monitored, and constantly manipulated so as to fulfil its purpose.

So if adaptation to new purposes or ends is what ultimately defines the concept of artificiality—the crafting of something using recipes of action for an end that is not given in advance in the material ingredients—then by virtue of repurposing their actions toward inexhaustible ends, far from being artificial contraptions that have succeeded in mimicking natural behaviours, the automata have in fact made a first gesture toward *artificializing* themselves, adapting themselves to purposes that are intrinsic neither to their specific actions or instrumentalities nor to their material constitution. Whereas in its basic form the artificial implies making something whose ends and functions are not intrinsic to its material ingredients, in its advanced form it is suggestive of a craft whose purposes are to be found neither in its

recipe (instructions for actions) nor in its ingredients (material or natural constituents). This craft is the world of our hypothetical automata as agents furnished with autonomy. By initiating themselves into the autonomous conceptual order afforded by language, they have introduced into their world a new set of relations between intelligibilities, actions, values, and ends that is precisely the theoretico-practical crux of what we see as the concepts of the artefact and artificiality.

The concept of the artificial is now a fundamental component of their reality, indissociable from the possibility of thinking, and ingrained in their cognitive-practical abilities. Entertaining the idea of artificialization by elaborating its all-encompassing possibilities is an essential part of articulating the intelligibility of who they are and intelligently crafting a world that would suit them: To treat themselves as the artefacts of their own ends or concept, to improve not only what they are but also how they should improve themselves, to make a world that not only suits them, but is intelligible ontologically, epistemologically, and axiologically.

Within this expanding program of self-artificialization or re-engineering of the reality of who they are, the idea of making something better than themselves appears not as an existential threat but as a logical and necessary extension of that very program, as the veritable expression of their process of self-discovery. Whatever that future intelligence might be, it will be bound to certain constraints necessary for rendering the world intelligible and acting on what is intelligible. *That which speaks* can now go on and begin an adversarial conversation with gods, and a fecund dialogue with some future intelligence which may have all of its cherished capacities, and more.

8. Philosophy of Intelligence

399BC, the day of Socrates's indictment: On the account of Justus of Tiberias, as cited by Diogenes Laertius, the young and impressionable Plato mounts the platform to address the citizens of Athens in defence of his teacher, only to witness his voice being drowned by the judges' pealing yells of 'Kataba! Kataba!' (Get down! Get down!).[291]

Dispirited and disenchanted by the passivity of the Athenians and the injustice of the accusations levied against Socrates, Plato begins to stage a belated defence against the charges of corrupting the youth, haughtiness, and impiety. He devises a form of thought in which all individual voices are but fleeting, and only the interaction or dialogue between voices or individual thoughts matter. To this end, he begins the crafting of dialogues in which he adamantly refuses to say anything on his own behalf, for philosophy is the voice of no one, an impersonal thought that recalcitrantly declines to be equated with this or that person, this or that philosopher. In one dialogue Socrates might be profound, and in another, the one who peddles common-sense impressions.[292]

Back from his second trip to Syracuse (ancient Sicily)—once his ideal of utopia—the mature Plato, who, beginning with Theaetetus, *has extensively revised his old doctrine of forms, pens a series of works* (Philebus *and* Phaedo *among others), where he no longer defends Socrates against the accusations of philosophical haughtiness, corruption of the youth, and impiety.*[293] *To the contrary, he defends*

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291 Diogenes Laertius, *Lives of Eminent Philosophers* (2 vols. Cambridge, MA: Harvard University Press, 1959), vol. 1, 171.

292 See for example, the dialogue between Socrates and the old Parmenides who, in Plato's *Parmenides*, challenges and exposes Socrates's understanding of forms as flawed and naive.

293 Misconceptions about Plato and distaste for his vision of philosophy are undoubtedly plentiful today, and are even in vogue. For a good part, the roots of such misconceptions lie in second-hand commentaries originating from Aristotle's and the Neoplatonists' readings of Plato. Even Hegel submits to a particularly Aristotelian interpretation of Plato, which solely focuses on the works of the middle period, particularly the *Republic*. Yet Plato was infamous for being his own most staunch

the philosophical corruption of the youth and the impiety of the human mind as the very definitions of virtue and piety. To those who denounce him for championing the haughtiness of philosophy as the courage of truth and the embodiment of the Good itself, he pithily responds: What can ever trample this pride, if not another pride, a personal or an unexamined one.[294]

These later works epitomize what might be called the longest—ongoing—con in the history of thought, the infinite mêtis of intelligence: Intelligence can only cultivate itself or be deemed intelligent by determining and expanding the horizon of the intelligible, and the intelligible can only be recognized and elaborated by an intelligence that cultivates itself. The human mind is akin to the Good itself, and the Good is beyond all beings and gods of the present and the future.[295] *Thus any species that takes itself to be intelligent must both cultivate itself and expand the scope of what is intelligible. But in being compelled to renew the link between intelligence and the intelligible, in order to navigate the reinforcing links between the craft or cultivation of intelligence and the expansion of the intelligible, to maintain its intelligibility, intelligence must uncompromisingly treat whatever seems to be an immediate state of affairs, or an inevitable or completed totality—including its own self-image—as a fleeting figure on the wall of the human cave; as something that can and should be determinately negated and exposed for what it really is: an illusory shadow.*

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critic. By the time he wrote *Philebus* and *Laws*, Plato had already extensively revised some of his main theses presented in the *Republic*. A genuinely comprehensive and first-hand engagement with Plato without the clichés of Platonism only begins at the end of nineteenth century and the early twentieth century, with the rise of the Marburg school—particularly as represented by neo-Kantian figures such as Hermann Cohen and Paul Natorp—and the Tübingen school of Platonic studies. For a punctilious critique of an all-too-familiar Aristotelian engagement with Plato, see Wilfrid Sellars's response to Gregory Vlastos's disquisition on the Third Man argument: W. Sellars, *Vlastos and 'The Third Man'* (1954), <http://digital.library.pitt.edu/u/ulsmanuscripts/pdf/31735062222389.pdf>.

294 Diogenes Laertius, *Lives of Eminent Philosophers*, vol. 2, 29.

295 It should be noted that in *Philebus*, Plato replaces the word *demiurgos* (God or the chief craftsman) as the designation of the Good with the neutral word *to demiurgen* as the demarcation of the human mind.

At this point Plato's vision of philosophy encapsulates what is most rebellious and sacrilegious: The real movement of thought or intelligence as that which topples the given order of things, whoever or whatever may represent it. For the Good as the principle of intelligence is atemporal and timeless, it is time as eternity, beyond all life and death, in which the temporal order of things is indefinitely suspended. A genuine philosophy as the organon—rather than the canon—of intelligence can only begin with this thought, the thought of all thoughts.

Certainly this story can, as a matter of fact, play the part of a mythological fabrication deludedly advanced to elevate the status of Plato to the paragon philosopher. Yet that does not change the fact that Plato did indeed instigate a wholesale insurrection against all those who demand the humility and surrender of thought before the gods and the seemingly given, totalized, or inevitable; or that, by the end, he equated the human mind or intelligence with the Good itself, the form of forms. Regardless of whether this story is true or not, there is no reason not to re-envision philosophy in this vein: as the voice of no one, the organon of intelligence, a determination of thought that begins with a position beyond life and death, an eternity in which all completed totalities of history are but fleeting, the striving for truth as that which swims against the temporal current of things, the figure of thought as time that refuses to ever close its circle of revenge.

The central thesis of this final chapter is that philosophy is, at its deepest level, a *program*—a collection of action-principles and practices-or-operations which involve realizabilities, i.e., what can possibly be brought about by a specific category of properties or forms. And that to properly define philosophy and to highlight its significance, we should approach philosophy by first examining its programmatic nature. This means that, rather than starting the inquiry into the nature of philosophy by asking 'What is philosophy trying to say, what does it really mean, what is its application, does it have any relevance?', we should ask 'What sort of program is philosophy, how does it function, what are its operational effects, what realizabilities, specific to which forms, does it elaborate, and finally, as a program, what kinds of experimentation does it involve?'

To this end, the final stage in our journey involves making explicit what we have been doing all along: philosophizing. But what is philosophy and what does philosophizing entail? In an age when philosophy is

considered to be at best an antiquated enterprise, and at worst a residue of what is orthodoxly normative, patriarchal, repressive, and complicit with all that is overprivileged and even fascist, what does it mean to rekindle philosophy's insinuative temptations to think and to act, to galvanize that activity which is at bottom impersonal and communist? I do not wish to refute these misplaced accusations with numerous examples drawn from the ongoing history of science, or by citing examples corroborating the fact that philosophy is not just a Greek phenomenon, but also a truly universal endeavour extending from the pits of the Middle East to the remotest regions of Asia and the wide swaths of Africa. To follow Deleuze and Guattari in reducing what philosophy is and what it can be to geological or geopolitical contingencies would be a disingenuous manoeuvring against what philosophy—the cosmological ambition of thinking—is and will be, not by virtue of where it has come from, but in spite of it.[296] Even if philosophy was truly a Western enterprise misguidedly seeking to edify the benighted inhabitants of the nether worlds, over time it will poison the slums of the earth with that basic drive of which it was merely a primitive representation: the compulsion to think. And once this poison starts to take effect, we will tear apart Western philosophy and build philosophy anew; we will turn into that thinking and scheming Other of which Western thought had every right to be afraid.

The decolonization of thought entails the drudgery of unifying personal experiences and the impersonality or objectivity of thought. A paradigm of decolonization that attempts to shortcut this hard work by equating decolonized thought with some sort of *immediate* contact with land, territory, ethnicity, etc. ultimately remains within the confines of the Western colonial notion of others as noble savages. The unity of local exigencies and universal ambitions is where a true decolonial philosophy starts; anything else should be spurned as the heritage of colonial thought.

296 G. Deleuze and F. Guattari, *What is Philosophy?* (Columbia, NY: Columbia University Press, 1996), 2–3.

Philosophy begins with a universal thesis regarding *the equality of all minds*:[297] that whoever or whatever satisfies the basic conditions of its possibility should be seen as and treated as equal in the broadest possible sense. But as the discipline of philosophizing becomes more mature, it ought to realize that there is in fact a significant truth to these accusations of philosophy as a Western, self-entitled mode of thinking, however ill-judged they may seem. The equality of minds, as a thesis about what is true and what is just, is a dictum universal and necessary in its truth and applicability. But that does not mean that it is concretely universal *for us*. It is something to be achieved and concretely instituted. The condition of the *equality* of all minds is one whose recognition and realization demands struggle and a constant campaign against the prevalent systems of exploitation. But in so far as exploitation, as that which obscures this equality, can only be challenged by attending to the questions of what we ought to think and what we ought to do, it is only by committing to and elaborating the primary datum of philosophy—i.e., that thinking is possible—that we can begin to fight the condition of exploitation. For if all we aspire to do is to replace a manifest system of exploitation with a more concealed paradigm of cognitive inequality, then it is best to heed the call of the Stoics: 'the foulest death is preferable to the cleanest slavery'.[298] If seizing the means of collective cognition is no longer on the menu of our everyday life as even the remotest option for the good of ourselves and others, then it is perhaps time to seize, by whatever cunning instruments necessary, the means of our death.

It would be a paltry complaint to point out what is now obvious: that academia was conceived to push thinking to its ultimate unanticipated conclusions, but that academic philosophy today is a bureaucratic regime bent on containing thought within what is most predictable and mundane. As a matter of fact, there are always gleaming exceptions who fight their

297 See Plato, *Republic* (Indianapolis: Hackett, 2004); and A. Badiou, *Plato's Republic*, tr. S. Spitzer (Cambridge: Polity Press, 2012).

298 Seneca, *Ad Lucilium Epistulae Morales* (2 vols. London: William Heinemann, 1920), vol. 2, 69.

way through within academia and rise above the repetitive tide of cognitive complacency. But exceptions are neither good excuses for what is now monotonously managerial and stifling, nor a reason to rescue it. Academic philosophy was conceived to cultivate the practice of philosophizing among the masses, not to mistake itself for philosophy as such. But these plain facts should not justify our blindness to the achievements of academia and philosophy as an academic discipline either. The support given to those who are in pursuit of philosophizing, outlining the necessary standards of what it means to think well, facilitating the gathering of people who desire to think for the sake of thought, and highlighting the reinforcing effect that such a gathering can have on the history of thought, are all achievements of academic philosophy. But why not reinvent these achievements beyond the confines of institutional academia and, in doing so, bring the discipline of philosophizing closer to the ethos of philosophy? Even the original founders of academia would have conceded that it is now time to steadily depart from the claustrophobic walls of academic philosophy for the agora of philosophy.

With that said, in this chapter, we shall focus on the central task of philosophy, which is the explicitation of the equality of all minds. As will be argued, it is only in this explicitation or elaboration that intelligence finds its meaning. The historical task of philosophy coincides with the meaning of intelligence as that which not only recognizes the equality of all minds but also expands on this meaning by taking it to the farthest conclusions. Philosophy is then conceived as a *mêtis*—a craft—that summons the formlessness of time through the ongoing history of the *geistig* Concept. Correspondingly, if minds are all equal insofar as they have satisfied the necessary conditions of possibility for having mind, then philosophy as the craft of intelligence is properly speaking not the sole preserve of what today wears the badge of mindedness or general intelligence—that is, homo sapience as a natural species. The equality of all minds is a right to which anything that satisfies the conditions of its possibility is entitled. It is in this sense that artificial general intelligence boasts a peculiarly philosophical or geistig quality: if anything that can satisfy the minimal yet necessary conditions of possibility of having mind is entitled to the rights of equality

of all minds, then any impersonal collectivity comprised of agents with no essentialist features (organic or inorganic) can also be entitled to the rights of that equality.

Recall that the term 'artificial general intelligence' is a mere pleonasm, since general intelligence is already an artefact of the Concept. Hence the task of general intelligence—or geist—is to make explicit to the fullest extent the meaning and implications of its artefactuality, to attest to the fact that the right of equality of all minds is transferable beyond any seemingly necessary natural structure or established contract among us here and now, and to expand on what it means to be an artefact of the Concept whose form can accommodate any possible content. Philosophy is then that regimen that at once lures intelligence to its self-recognition and is the self-expression of intelligence's process of maturity. Let us come to terms with and proceed from this brute yet necessary and irrevocable fact: what we conceive ourselves as at this instant is but the prehistory of intelligence. Taking this fact as the premise of all our endeavours is what it means to be true to the logical conclusion of the equality of all minds, a thesis which is as much about what is true as it is about what is good and just, unrealized but realizable.

Even though the corollary problems of philosophy as a specialized discipline (the tenor of its discourses, its traction beyond its own domain, its applications and referential import) can in no way be ignored, they are nevertheless problems that can only be sufficiently addressed in the context of philosophy as a deeper cognitive enterprise. The primary focus of this cognitive program is to methodically compel thinking to identify and bring about its realizabilities—namely, what arises from the exercise of its theoretical and practical powers—and to explore what can possibly come out of thinking and what thought (as an act and as the object of its act) can become. As will be argued, it is within the overarching scope of this cognitive program that philosophy's thesis of the equality of all minds can be concretely elaborated as an emancipatory project.

In other words, what we shall focus on in this chapter is a conception of philosophy that operates as a program for the elaboration and construction of the theoretical and practical realizabilities of mind that we investigated

in the previous chapters. If mind or geist (qua a community of rational agents) has such-and-such characteristics, then what would be the shape of a philosophy capable of liberating its realizabilities, or, put differently, further elaborating what arises from the exercise of its theoretical and practical cognitions? Is it possible to outline philosophy as a program in which the artificial potencies of the mind can be oriented toward the perennial concerns of philosophy, namely, truth and goodness as projects rather than as given notions? In yet other words, is it possible to retain a conception of philosophy for a 'human' systematically disassembled by evolutionary biology, neuroscience, artificial intelligence, and robotics? To answer these questions, first we have to examine the most classical questions: 'What is philosophy, and what is its import for the subject of cognitions, theoretical and practical?'

For reasons that will become clear, answers to these questions will be given in the form of a series of data to be employed in a manner analogous to that of Euclid in *Dedomena* (*The Givens*), which seeks to exemplify the model of knowledge provided by Aristotle's Posterior Analytics. The data, for Euclid, are quasi-formal intuitive axioms from which the system is built hierarchically through diagram-based discursive chains; they are givens not as sense-data, but as self-evident truths from which the system is recursively constructed, first by the immediate derivation of basic theses from axiomatic data and then by a process of sequentialization that derives further theses from already established 'more basic' theses. The result, despite setting out from unjustified given truths and exhibiting missing discursive links, is nothing short of extraordinary: a universe in which new objects of thoughts are individuated, and the elementary entities (points, lines, angles, etc.) progressively rediscovered. Following Proclus's exegesis as well as more recent commentaries,[299] looking past their mathematical exterior, Euclid's

299 See K. Manders, 'The Euclidean Diagram', in *The Philosophy of Mathematical Practice* (Oxford: Oxford University Press, 2008), 80–133; and D. Macbeth, 'Diagrammatic Reasoning in Euclid's Elements', in B. Van Kerkhove, J. De Vuyst, and J.-P. Van Bendegem (eds.), *Philosophical Perspectives on Mathematical Practice* 12 (London: College Publications, 2010), 235–67.

Elements and *Data* are philosophical works of astonishing depth in which the relation between universalizing and particularizing principles is elaborated as a canonical method for the construction of cognitive systems.

In contrast to this Euclidean notion of data, what are presented here as data are not axioms or truth-givens, but what are called *truth-candidates*. Data in this sense refers to a family of truth-presumptive claims that are truth-embracing. In themselves they have no claim to any truth. In other words, as opposed to truth-givens (axioms), in which a truth is attached to a single datum, truth-candidates, although constructive elements, do not build the system on given truths; rather, the process of the construction itself becomes the process of determination of truth. How does this work? As mentioned, data or truth-candidates by themselves individually have no truth significance. They instead permit the instantiation of a logical space that encompasses them all. The criterion of plausibility of each datum—rather than its truth—is determined by how it hangs together with other data within this logical space. This is the coherentist web of data, a system of semantic transparency or coherence. It is only through the coherency analysis of this network that truth-candidates can be added, revised, or subtracted. More importantly, the navigation of this coherentist network or logical space is exactly the process of construction and exploration that has a truth-indicative weight. In a system built on the basis of a series of truth-givens, cognitive labour cumulatively moves outward both through and at the expense of the security afforded by its fundaments. In the coherentist network, instead, the direction of orientation is *inward*, moving contractively from the boundaries roughly demarcated by the network of insecure candidates to a more determined domain of truth. In the course of this inward navigation, sometimes the boundaries of the system will have to be readjusted to accommodate additional truth-candidates or to discard some of the existing ones (cf. the definition of constructors and destructors that follows shortly).

The cognitive system thus realized by truth-candidates has no resemblance to the canonical hierarchical model. Theses are not built on top of one another, supported by tightly-linked chains fastened to an apparently solid fundament made of given truths, but rather connected to one another

by probative interconnections within a web made of supple 'cable[s] whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected'.[300] The unsecured yet supple and resilient cognitive exploration begins from the inexact peripheries and proceeds inward, from the question of truth as *where* (Where can begin our search?) to the question of truth as *what* (What is truth?).

The following data should therefore be understood in the sense of data as a family of truth-candidates and not as truths or self-evident givens. The model of philosophy as a philosophical program provided in the context of these data should be seen as an inward cognitive exploration beginning from the most insecure pieces of information regarding what philosophy is and how it is related to thinking, mind, and intelligence, and contractively cohering toward unanticipated domains wherein the theoretical and practical truth of intelligence can be elaborated. But this cognitive exploration that extends through history and time is the very construction of the ultimate form of intelligence.

DATUM 1. WE EXERCISE

Traditionally, philosophy is an ascetic program.

Philosophy is ascetic to the extent that it involves the exercise of a multistage, disciplined, and open-ended reflection on its own conditions of possibility as a form of thought that turns thinking into a program. The ascesis or programmatic exercise of thinking is prior to any practical discipline of living. The real import of this datum resides in precisely what a program consists in. Accordingly, in order to elucidate the significance of philosophy both as a programmatic discipline and as a form of thought that transforms thinking into a programmatic project, first we must elaborate what is meant by 'program' in its most generic sense. In order to do so, the notion of program—in the sense of action-principles and practices-or-operations that bring about something—must be defined parsimoniously

300 C.S. Peirce, 'Some Consequences of Four Incapacities', *Journal of Speculative Philosophy* 2 (1868), 140–57.

in terms of its bare formal armature, stripped down to those generic yet necessary features that underlie any type of program, regardless of its applications or aims. These are: the selection of a set of data, and the elaboration of what follows from this choice if the data are treated not as immutable postulates or definitions but as abstract modules that can act upon one another and constitute a logical space cohered by the way in which the data, in the broadest possible sense, hang together.

A program is the embodiment of the interactions of its family of data, which acquire a certain range of dynamic content once they hang together in a syntactic-semantic space. More specifically, it can be said that programs are constructions that extract operational content from their axioms and develop different possibilities of realization (what can be brought about) from this operational content. And respectively, data are operational objects or abstract realizers that encapsulate information regarding their specific properties or categories. In this sense, programs elaborate realizabilities (what can possibly be realized or brought about) from a set of elementary abstract realizers (what has operational information concerning the realization or the bringing-about of a specific category of properties and behaviours) in more complex setups.

Consider the simplest formal example of an interaction, a typed interaction couched in terms of the relation between types, proofs, programs, judgement, and cognition (*Erkenntnis*), as elaborated by Per Martin-Löf within what is often called the proofs-as-programs or types-as-propositions interpretation of how computer science and logic are related at the deepest level:[301]

A is a proposition (prop), e.g., 'Hipparchia is homeless' or
$\forall a,b,c\,[(a=b)\rightarrow(a-c=b-c)]$

which can be written as

A prop

301 P. Martin-Löf, 'Analytic and Synthetic Judgements in Type Theory', in *Kant and Contemporary Epistemology* (Dordrecht: Springer, 1994), 87–99.

Now, the meaning of a proposition is determined by a piece of evidence—an object of knowledge or judgement—showing that the proposition is true, written as

A true

It means that 'A is true' in that it is inhabited by a proof. But what exactly does proof signify here? Recall that 'A is a proposition' and 'A is true' are both forms of judgements, and that, as such, there is something we must grasp in order to make the first judgement, and something additional that we need to know in order to make the second judgement. As judgments, they are both comprised of an act and its object, the act of judging or understanding and that which is judged, or the object of understanding. When act and object are brought together, then we have knowledge in the sense of cognition or *erkenntnis*: 'to cognize an object I must be able to prove its possibility, either from its actuality as attested by experience, or a priori by means of reason'.[302] Accordingly, what is understood by proof here is cognizing/constructing/constituting an object for that act of judging or understanding for which it is an object. On this account, when we use the set membership notation and say that $a \in A$, it means that object a is of type A. Now, in so far as any judgement is an instance of a form of judgement, it follows that it suffices to cognize an object for *that specific form of judgement*. Consequently, we do not need to know exactly what A is, but simply to make it evident that it is encompassed by a specific form of judgement, and that such a form of judgement exists.

In this style, the proof is then expressed through the distinction between terms and types,

$a : \alpha$

or

302 Kant, *Critique of Pure Reason*, 28.