The Labor of the Inhuman, Part II: The Inhuman

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Enlightened humanism as a project of commitment to humanity, in the entangled sense of what it means to be human and what it means to make a commitment, is a rational project. It is rational not only because it locates the meaning of human in the space of reasons as a specific horizon of practices, but also and more importantly, because the concept of commitment it adheres to cannot be thought or practiced as a voluntaristic impulse free of ramifications and growing obligations. Instead, this is commitment as a rational system for navigating collateral commitments—their ramifications as well as their specific entitlements—that result from making an initial commitment.

Interaction with the rational system of commitments follows a navigational paradigm in which the ramifications of an initial commitment must be compulsively elaborated and navigated in order for this commitment to make sense as an undertaking. It is the examination of the rational fallout of making a commitment, the unpacking of its far-reaching consequences, and the treating of these ramifications as paths to be explored that shapes commitment to humanity as a navigational project. Here, navigation is not only a survey of a landscape whose full scope is not given; it is also an exercise in the non-monotonic procedures of steering, plotting out routes, suspending navigational preconceptions, rejecting or resolving incompatible commitments, exploring the space of possibilities, and understanding each path as a hypothesis leading to new paths or a lack thereof—transits as well as obstructions.

From a rational perspective, a commitment is seen as a cascade of ramifying paths that is in the process of expanding its frontiers, developing into an evolving landscape, unmooring its fixed perspectives, deracinating any form of rootedness associated with a fixed commitment or immutable responsibilities, revising links and addresses between its old and new commitments, and finally, erasing any image of itself as "what it was supposed to be."

To place the meaning of human in the rational system of commitments is to submit the presumed stability of this meaning to the perturbing and transformative power of a landscape undergoing comprehensive changes under the revisionary thrust of its ramifying destinations. By situating itself in the rational system of commitments, humanism posits itself as an initial condition for what already retroactively bears a minimal resemblance, if any at all, to what originally set it in motion. Sufficiently elaborated, humanism—it shall be argued—is the initial condition of inhumanism as a force that travels back from the future to alter, if not to completely discontinue, the command of its origin.

Section 1. The Picture of "Us" Drawn in Sand

The practical elaboration of making a commitment to humanity is inhumanism. If making a commitment means fully elaborating the content of such a commitment (the consequent "what else?" of what it means to be human), and if to be human means being able to enter the space of reason, then a commitment to humanity must fully elaborate how the abilities of reason functionally convert sentience to sapience.

But insofar as reason enjoys a functional autonomy—which enables it to prevent the collapse of sapience back into sentience—the full elaboration of the abilities of reason entails unpacking the consequences of the autonomy of reason for human. Humanism is by definition a project to amplify the space of reason through elaborating what the autonomy of reason entails and what demands it makes upon us. But the autonomy of reason implies its autonomy to assess and construct itself, and by extension, to renegotiate and construct that which distinguishes itself by entering the space of reason. In other words, the self-cultivation of reason, which is the emblem of its functional autonomy, materializes as staggering consequences for humanity. What reason does to itself inevitably takes effect as what it does to human.

Since the functional autonomy of reason implies the self-determination of reason with regard to its own conduct—insofar as reason cannot be assessed or revised by anything other than itself (to avoid equivocation or superstition)—commitment to such autonomy effectively exposes what it means to be human to the sweeping revisionary effect of reason. In a sense, the autonomy of reason is the autonomy of its power to revise, and commitment to the autonomy of reason (via the project of humanism) is a commitment to the autonomy of reason's revisionary program over which human has no hold.

Inhumanism is exactly the activation of the revisionary program of reason against the self-portrait of humanity. Once the structure and the function of commitment are genuinely understood, we see that a commitment works its way back from the future, from the collateral commitments of one's current commitment, like a corrosive revisionary acid that rushes backward in time. By eroding the anchoring link between present commitments and their past, and by seeing present commitments from the perspective of their ramifications, revision forces the updating of present commitments in a cascading fashion that spreads globally over the entire system. The rational structure of a commitment, or more specifically, of commitment to humanity, constructs the opportunities of the present by cultivating the positive trends of the past through the revisionary forces of the future. Once you commit to human, you effectively start erasing its canonical portrait backward from the future. It is, as Foucault suggests, the unyielding wager on the fact that the self-portrait of man will be erased, like a face drawn in sand at the edge of the sea. Every portrait drawn is washed away by the revisionary power of reason, permitting more subtle portraits with so few canonical traits that one should ask whether it is worthwhile or useful to call what is left behind human at all.

Inhumanism is the labor of rational agency on human. But there is one caveat here:

the rational agency is not personal, individual, or necessarily biological. The kernel of inhumanism is a commitment to humanity via the concurrent construction and revision of human as oriented and regulated by the autonomy of reason, that is, its self-determination and responsibility for its own needs. In the space of reason, construction entails revision, and revision demands construction. The revision of the alleged portrait of human implies that the construction of human in whatever context can be exercised without recourse to a constitutive foundation, a fundamental identity, an immaculate nature, a given meaning, or a prior state. In short, revision is a license for further construction.

Section 2. When We Lost Contact with "What Is Becoming of Us"

Whereas, as Michael Ferrer points out, antihumanism is devoted to the unfeasible task of deflating the conflation of human significance with human veneration, inhumanism is a project that begins by dissociating human significance from human glory. Resolving the content of conflation and extracting significance from its honorific residues, inhumanism then takes humanism to its ultimate conclusions. It does so by constructing a revisable picture of us that functionally breaks free from our expectations and historical biases regarding what this image should be, look like, or mean. For this reason, inhumanism, as it will be argued later, prompts a new phase in the systematic project of emancipation—not as a successor to other forms of emancipation but a critically urgent and indispensable addition to the growing chain of obligations.

Moreover, inhumanism disrupts a future anticipation built on descriptions and prescriptions provided by a conservative humanism. Conservative humanism places the consequentiality of human in an overdetermined meaning or an over-particularized set of descriptions which is fixed and must at all times be preserved by any prescription developed by and for humans. Inhumanism, on the other hand, finds the consequentiality of commitment to humanity in its practical elaboration and in the navigation of its ramifications. For the true consequentiality of a commitment is a matter of its power to generate other commitments, to update itself in accordance with its ramifications, to open up spaces of possibility, and to navigate the revisionary and constructive imports such possibilities may contain.

The consequentiality of commitment to humanity, accordingly, lies not in how parameters of this commitment are initially described or set. Rather, it lies in how the pragmatic meaning of this commitment (its meaning through use) and the functionalist sense of its descriptions (what must we do in order to count as human?) intertwine to effectuate broad consequences that are irreconcilable with what was initially the case. It is consequentiality in the latter sense that overshadows consequentially in the former sense, before it fully proves the former's descriptive poverty and prescriptive inconsequentiality through a thoroughgoing revision.

As Robert Brandom notes, every "consequence is a change in normative status" that may lead to incompatibilities between commitments. Therefore, in order to maintain the undertaking, we are obliged to do something specific to resolve the incompatibili-

ties. From the perspective of inhumanism, the more discontinuous the consequences of committing to humanity, the greater are the demands of doing something to rectify our undertakings (ethical, legal, economic, political, technological, and so forth). Inhumanism highlights the urgency of action according to a tide of revision that increasingly registers itself as a discontinuity, a growing rift with no possibility of restoration.

Any sociopolitical endeavor or consequential project of change must first address this rift—or discontinuity effect—and then devise a necessary course of action in accordance with it. But doing something about the discontinuity effect—triggered by unanticipated consequences and, as a result, the exponentially growing change in normative status (that is, the demands of what ought to be done)—is not tantamount to an act of restoration. On the contrary, the task is to construct points of liaison—cognitive and practical channels—so as to enable communication between what we think of ourselves and what is becoming of us.

The ability to recognize the latter is not a given right or an inherent natural aptitude; it is, in fact, a labor, a program, that is fundamentally lacking in current political projects. Being human does not by any means entail the ability to connect with the consequences of what it means to be human. In the same vein, identifying ourselves as human is neither a sufficient condition for understanding what is becoming of us, nor a sufficient condition for recognizing what we are becoming, or more accurately, what is being born out of us.

A political endeavor aligned with antihumanism cannot forestall its descent into a grotesque form of activism. But any sociopolitical project that pledges its allegiance to conservative humanism—whether through a quasi-instrumentalist and preservationist account of reason (such as Habermasian rationality) or a theologically charged meaning of human—enforces the tyranny of here and now under the aegis of a foundational past or a root.

Antihumanism and conservative humanism represent two pathologies of history frequently appearing under the rubrics of conservation and progression—one an account of the present that must preserve the traits of the past, and the other an account of the present that must approach the future while remaining anchored in the past. But the catastrophe of revision erases them from the future by modifying the link between the past and the present.

Section 3. The Revisionary Catastrophe

The definition of humanity according to reason is a minimalist definition whose consequences are not immediately given, but whose ramifications are staggering. If there was ever a real crisis, it would be our inability to cope with the consequences of committing to the real content of humanity. The trajectory of reason is that of a general catastrophe whose pointwise instances and stepwise courses have no observable effect or comprehensive discontinuity. Reason is therefore simultaneously a medium of stability that reinforces procedurality and a general catastrophe, a medium of radical

change that administers the discontinuous identity of reason to an anticipated image of human.

Elaborating humanity according to the discursive space of reason establishes a discontinuity between human's anticipation of itself (what it expects itself to become) and the image of human modified according to its active content or significance. It is exactly this discontinuity that characterizes inhumanism as the general catastrophe ordained by activating the content of humanity, whose functional kernel is not just autonomous but also compulsive and transformative.

The discernment of humanity requires the activation of the autonomous space of reason. But since this space—qua the content of humanity—is functionally autonomous even though its genesis is historical, its activation implies the deactivation of historical anticipations of what humanity can be or become at a descriptive level. Since antihumanism mostly draws its critical power from this descriptive level either situated in nature (allegedly immune to revision) or in a restricted scope of history (based on a particular anticipation), the realization of the autonomy of reason would restore the nontheological significance of human as an initial necessary condition, thus nullifying the antihumanist critique. What is important to understand here is that one cannot defend or even speak of inhumanism without first committing to the humanist project through the front door of the Enlightenment.

Rationalism as the compulsive navigation of the space of reason turns commitment to humanity into a revisionary catastrophe, by converting its initial commitment into a ramified cascade of collateral commitments which must be navigated in order for it to be counted as commitment. But it is precisely this conversion, instigated and guided by reason, that transforms a commitment into a revisionary catastrophe that travels backward in time from the future, from its revisionary ramifications, in order to interfere with the past and rewrite the present. In this sense, reason establishes a link in history hitherto unimaginable from the perspective of a present that preserves an origin or is anchored in the past.

To act in tandem with the revisionary vector of the future is not to redeem but to update and revise, to reconstitute and modify. As an activist impulse, redemption operates as a voluntaristic mode of action informed by a preservationist or conserved account of the present. Revision, on the other hand, is an obligation or a rational compulsion to conform to the revisionary waves of the future stirred by the functional autonomy of reason.

Section 4. Autonomy of Reason

But what exactly is the functional autonomy of reason? It is the expression of the self-actualizing propensity of reason—a scenario wherein reason liberates its own spaces despite what naturally appears to be necessary or happens to be the case. Here "necessary" refers to an alleged natural necessity and should be distinguished from a normative necessity. Whereas the given status of natural causes is defined by "is" (something

that is purportedly the case because it has been contingently posited, such as the atmospheric condition of the planet), the normative of the rational is defined by "ought to." The former communicates a supposedly necessary impulsion while the latter is not given, but instead generated by explicitly acknowledging a law or a norm implicit in a collective practice, thereby turning it into a binding status, a conceptual compulsion, an ought.

It is the acknowledging, error-tolerant, revisionary dimension of ought—as opposed to the impulsive diktat of a natural law—that presents ought as a vector of construction capable of turning contingently posited natural necessities into the manipulable variables required for construction. In addition, the order of ought is capable of composing a functional organization, a chain or dynasty of oughts, that procedurally effectuates a cumulative escape from the allegedly necessary is crystalized in the order of here and now.

The functional autonomy of reason consists in connecting simple oughts to complex oughts or normative necessities or abilities by way of inferential links or processes. A commitment to humanity, and, consequently, the autonomy of reason, requires not only specifying what oughts or commitment-abilities we are entitled to, but also developing new functional links and inferences that connect existing oughts to new oughts or obligations.

Whether Marxist agenda, humanist creed, or future-oriented perspective, any political philosophy that boasts of commitments without working out inferential problems and without constructing inferential and functional links suffers from an internal contradiction and an absence of connectivity between commitments. Without inferential links, there is no real updating of commitments. Without a global program of updating, it becomes increasingly difficult, if not impossible, to prevent humanism from stagnating as an organ of conservatism, and Marxism from sliding into a burlesque of critique, a grab bag of cautionary tales and revolutionary bravado. No matter how sociopolitically adept or determined a political project appears, without a global updating system, such an enterprise is blocked by its own internal contradictions from prescribing any obligation or duty.

Indeed, in its commendable attempt to outline "what ought to be done" in terms of functional organizations, complex hierarchies, and positive feedback loops of autonomy, the recent "Accelerate Manifesto" signifies a Marxian project that is in the process of updating its commitments. It should come as no surprise that such an endeavor receives the most derision and scorn from those strains of Marxism which have long since given up on updating their cognitive and practical commitments.

Section 5. Functional Autonomy

The claim about the functional autonomy of reason is not a claim about the genetic spontaneity of reason, since reason is historical and revisable, social and rooted in practice. It is really a claim about the autonomy of discursive practices and the autonomy of inferential links between oughts, that is to say, links between constructive

abilities and revisionary obligations. Reason has its roots in social construction, in communal assessment, and in the manipulability of conditionals embedded in modes of inference. It is social partly because it is deeply connected to the origin and function of language as a de-privatizing, communal, and stabilizing space of organization. But we should be careful to extract a "robust" conception of the social, because a generic appeal to social construction risks not only relativism and equivocation but also, as Paul Boghossian points out, a fear of knowledge. The first movement in the direction of extracting this robust conception of the social is making a necessary distinction between the "implicitly" normative aspect of the social (the area of the consumption and production of norms through practices) and the dimension of the social inhabited by conventions, between norms as intervening attitudes and normalizing norms as conformist dispositions.

Reason begins with an intervening attitude toward norms implicit in social practices. It is neither separated from nature nor isolated from social construction. However, reason has irreducible needs of its own (Kant) and a constitutive self-determination (Hegel), and it can be assessed only by itself (Sellars). In fact, the first task or question of rationalism is to come up with a conception of nature and the social that allows for the autonomy of reason. This question revolves around a causal regime of nature that allows for the autonomous performance of reason in "acknowledging" laws, whether natural or social. Therefore, it is important to note that rationality is not conduct in accordance with a law, but rather the acknowledging of a law. Rationality is the "conception of law" as a portal to the realm of revisable and navigable rules.

We only become rational agents once we acknowledge or develop a certain intervening attitude toward norms that renders them binding. We do not embrace the normative status of things outright. We do not have access to the explicit—that is, logically codified—status of norms. It is through such intervening attitudes toward the revision and construction of norms through social practices that we make the status of norms explicit. Contra Hegel, rationality is not codified by explicit norms from the bottom up. To confuse implicit norms accessible through intervening practices with explicit norms is common and risks logicism or intellectualism, that is, an account of normativity in which explicit norms constitute an initial condition with rules all the way down—a claim already debunked by Wittgenstein's regress argument.

Section 6. Functional Bootstrapping and Practical Decomposability

The autonomy of reason is a claim about the autonomy of its normative, inferential, and revisionary function in the face of the chain of causes that condition it. Ultimately, this is a neo-functionalist claim, in the sense of a pragmatic or rationalist functionalism. Pragmatic functionalism must be distinguished from both traditional AI-functionalism, which revolves around the symbolic nature of thought, and behavioral variants of functionalism, which rely on behaviors as sets of regularities. While the latter two risk various myths of pancomputationalism (the unconditional omnipresence

of computation, the idea that every physical system can implement every computation) or behavioralism, it is important to note that a complete rejection of functionalism in its pragmatic or Kantian rationalist sense will inevitably usher in vitalism and ineffabilism, the mystical dogma according to which there is something essentially special and non-constructible about thought.

Pragmatic functionalism is concerned with the pragmatic nature of human discursive practices, that is, the ability to reason, to go back and forth between saying and doing stepwise. Here, "stepwise" defines the constitution of saying and doing, claims and performances, as a condition of near-decomposability. For this reason, pragmatic functionalism focuses on the decomposability of discursive practices into nondiscursive practices. (What ought one to do in order to count as reasoning or even thinking?). Unlike symbolic or classic AI, pragmatic functionalism does not decompose implicit practices into explicit—that is, logically codifiable—norms. Instead, it decomposes explicit norms into implicit practices, knowing-that into knowing-how (which is the domain of abilities endowed with bootstrapping capacities—what must be done in order to count as performing something specific?).

According to pragmatic or rationalist functionalism, the autonomy of reason implies the automation of reason, since the autonomy of practices, which is the marker of sapience, suggests the automation of discursive practices by virtue of their algorithmic decomposability into nondiscursive practices. The automation of discursive practices, or the feedback loop between saying and doing, is the veritable expression of reason's functional autonomy and the telos of the disenchantment project. If thought is able to carry out the disenchanting of nature, it is only the automation of discursive practices that is able to disenchant thought.

Here, automation does not imply an identical iteration of processes aimed at effective optimization or strict forms of entailment (monotonicity). It is a register of the functional analysis or practical decomposability of a set of special performances that permits the autonomous bootstrapping of one set of abilities out of another set. Accordingly, automation here amounts to practical enablement or the ability to maintain and enhance the functional autonomy or freedom. The pragmatic procedures involved in this mode of automation perpetually diversify the spaces of action and understanding insofar as the non-monotonic character of practices opens up new trajectories of practical organization and, correspondingly, expands the realm of practical freedom.

Once the game of reason as a domain of rule-based practices is set in motion, reason is able to bootstrap complex abilities out of its primitive abilities. This is nothing but the self-actualization of reason. Reason liberates its own spaces and its own demands, and in the process fundamentally revises not only what we understand as thinking, but also what we recognize as "us." Wherever there is functional autonomy, there is a possibility of self-actualization or self-realization as an epochal development in history. Wherever self-realization is underway, a closed positive feedback loop between freedom and intelligence, self-transformation and self-consciousness, has been established. The functional autonomy of reason is then a precursor to the self-realization of an intelligence that assembles itself, piece by piece, from the constellation of a dis-

cursively elaborative “us” qua an open-source self.

Rationalist functionalism, therefore, delineates a nonsymbolic—that is, philosophical—project of general intelligence in which intelligence is fully apprehended as a vector of self-realization through the maintaining and enhancing of functional autonomy. Automation of discursive practices—the pragmatic unbinding of artificial general intelligence and the triggering of new modes of collectivizing practices via linking to autonomous discursive practices—exemplifies the revisionary and constructive edge of reason as sharpened against the canonical self-portrait of human.

To be free one must be a slave to reason. But to be a slave to reason (the very condition of freedom) exposes one to both the revisionary power and the constructive compulsion of reason. This susceptibility is terminally amplified once the commitment to the autonomy of reason and autonomous engagement with discursive practices are sufficiently elaborated. That is to say, when the autonomy of reason is understood as the automation of reason and discursive practices—the philosophical rather than classically symbolic thesis regarding artificial general intelligence.

Section 7. Augmented Rationality

The automation of reason suggests a new phase in the enablement of reason’s revisionary edge and constructive vector. This new phase in the enablement of reason signals the exacerbation of the difference between rational compulsion and natural impulsion, between “ought to” as an intervening obligation and “is” as conformity to what is supposedly or naturally the case (contingency of nature, necessity of foundation, dispositions, conventions, and allegedly necessary limits).

The dynamic sharpening of the difference between “is” and “ought” heralds the advent of what should be called an augmented rationality. It is augmented not in the sense of being more rational (just like augmented reality that is not more real than reality), but in the sense of further radicalizing the distinction between what has been done or has taken place (or is supposedly the case) and what ought to be done. It is only the sharpening of this distinction that is able to augment the demands of reason and, correspondingly, propel rational agency towards new frontiers of action and understanding.

Augmented rationality is the radical exacerbation of the difference between ought and is. It thereby, from a certain perspective, annuls the myth of restoration and erases any hope for reconciliation between being and thinking. Augmented rationality inhabits what Howard Barker calls the “area of maximum risk”—not risk to humanity per se, but to commitments which have not yet been updated, because they conform to a portrait of human that has not been revised. Understood as the labor of the inhuman, augmented rationality produces a generalized catastrophe for unupdated commitments to human through the amplification of the revisionary and constructive dimensions of “ought.” If reason has a functional evolution of its own, cognitive contumacy against adaptation to the space of reason (the evolution of ought rather than the natural evolution of is) ends in cataclysm.

Adaptation to the evolution of reason—which is the actualization of reason according to its own functional needs—is a matter of updating commitments to the autonomy of reason by way of updating commitments to human. The updating of commitments is impossible without translating the revisionary and constructive dimensions of reason into systematic projects for the revision and construction of human through communal assessment and methodological collectivism. Even though rationalism represents the systematicity of revision and construction, it cannot by itself institute such systematicity. To rephrase, rationalism is not a substitute for a political project, even though it remains the necessary platform that simultaneously informs and orients any consequential political project.

Section 8. A Cultivating Project of Construction and Revision

The automation of reason and discursive practices unlocks new vistas for exercising revision and construction, which is to say, engaging in a systematic project of practical freedom. This is freedom as both the systematicity of knowledge, and as knowledge of the system as a prerequisite for acting on the system. In order to act on the system, it is necessary to know the system. But insofar as the system is nothing but a global integration of tendencies and functions, and insofar as it has neither an intrinsic architecture, nor an ultimate foundation, nor an extrinsic limit, it is imperative to treat the system as a constructible hypothesis in order to know it. In other words, the system should be understood by way of abductive synthesis and deductive analysis, methodic construction as well as inferential manipulation of its variables distributed at different levels.

Knowledge of the system is not a general epistemology, but rather, as William Wimsatt emphasizes, an "engineering epistemology." Engineering epistemology—a form of understanding that involves the designated manipulation of causal fabric and the organization of functional hierarchies—is an upgradable armamentarium of heuristics that is particularly attentive to the distinct roles and requirements of different levels and hierarchies. It employs lower-level entities and mechanisms to guide and enhance construction on upper levels. It also utilizes upper-level variables and robust processes to correct lower-level structural and functional hierarchies, but also to renormalize their space of possibilities so as to actualize their constructive potentials, yielding the observables and manipulation conditionals necessary for further construction.

Any political project aimed at genuine change must understand and adapt to the logic of nested hierarchies that is the distinctive feature of complex systems. This is because change cannot be effected except through both structural modifications and functional transformations across different structural layers and functional levels. Numerous intricacies arise from the distribution of nested structural and functional hierarchies. Sometimes, in order to make change at one level, a structural or functional change at a different, seemingly unrelated level must be made. Moreover, what is important is to change functions (whether at economic, social, or political levels). But not every structural change necessarily leads to a functional change, while every functional

change—by virtue of functions playing the role of purpose-attainment and dynamic stabilization for the system—results in a structural change (although such an alteration in structure might not take place in the specific structure whose function has just changed).

The significance of nested hierarchies for the implementation of any form of change on any stratum of our life makes the knowledge of different explanatory levels and cross-level manipulation a necessity of utmost importance. Such knowledge is yet to be fully incorporated within political projects. Without the knowledge of structural and functional hierarchies, ambition for change—whether through modification, reorganization or disruption—is misguided by the conflation between different strata of structure and function on the levels of economy, society, and politics. Therefore, only explanatory differentiation of levels and cross-level manipulations (complex heuristics) are able to transform dreams of change into reality.

In a hierarchical scenario, lower-level dimensions open upper levels to possibility spaces, which simultaneously expand the possibility of construction and bring about the possibility of revision. At the same time, descriptive plasticity and stabilized mechanisms of upper-level dimensions adjust and mobilize lower-level constructions and manipulations. Combined together, the abilities of lower-levels and upper-levels form the revisionary-constructive loop of engineering.

The engineering loop is a perspectival schema and a map of synthesis. As a map, it distributes both across different levels and as a multitude of covering maps with different descriptive-prescriptive valences over individual levels. The patchwork structure ensures a form of descriptive plasticity and prescriptive versatility, it reduces incoherencies and explanatory conflations and renders the search for problems and opportunities of construction effective by tailoring descriptive and prescriptive covering maps to specificities. As a perspectival compass, it passes through manifest and scientific images (stereoscopic coherence), assumes a view from above and a view from below (telescopic deepening), and integrates various mesoscales which have their own specific and nonextendable explanatory, descriptive, structural, and functional orders (nontrivial synthesis). The revisionary-constructive loop always institutes engineering as re-engineering, a process of re-modification, re-evaluation, re-orientation and re-constitution. It is the cumulative effect of engineering (Wimsatt) that corresponds to the functional and structural accumulation of complex systems, as that corrosive substance that eats away myths of foundation and catalyzes a cumulative escape from contingently posited settings.

The error-tolerant and manipulable dimensions of treating the system as a hypothesis and engineering epistemology are precisely the expressions of revision and construction as the two pivotal functions of freedom. Any commitment that prevents revision and does not maintain—or more importantly, expand—the scope of construction ought to be updated. If it cannot be updated, then it ought to be discarded. Freedom only grows out of functional accumulation and refinement, which are characteristics of hierarchical, nested, and therefore decentralized and complex systems. A functional organization consists of functional hierarchies and correct inferential links between

them that permit nontrivial orientation, maintenance, calibration, and enhancement, thereby bringing about opportunities for procedurally turning supposed necessities and fundaments associated with natural causes into manipulable variables of construction.

In a sense, a functional organization can be interpreted as a complex hierarchical system of functional links and functional properties related to both normative and causal functioning. It is able to convert the given order of "is" into the intervening and enabling order of "ought," where contingently posited natural limits are substituted by necessary but revisable normative constraints. It is crucial to note that construction proceeds under normative constraints (not natural constraints) and natural determinations (hence, realism) that cannot be taken as foundational limits. Functional hierarchies take on the role of ladders or bootstraps through which one casual fabric is appropriated to another, one normative status is pushed to another level.

This is why it is the figure of the engineer, as the agent of revision and construction, who is public enemy number one of the foundation as that which limits the scope of change and impedes the prospects of a cumulative escape. It is not the advocate of transgression or the militant communitarian who is bent on subtracting himself from the system or flattening the system to a state of horizontality. More importantly, this is also why freedom is not an overnight delivery, whether in the name of spontaneity or the will of people, or in the name of exporting democracy. Liberation is a project, not an idea or a commodity. Its effect is not the irruption of novelty, but rather the continuity of a designated form of labor.

Rather than liberation, the condition of freedom is a piecewise structural and functional accumulation and refinement that takes shape as a project of self-cultivation. Structural and functional accumulation and refinement constitute the proper environment for updating commitments, both through the correcting influence of levels over one another and the constructive propensity inherent in functional hierarchies as engines of enablement.

Liberation is neither the initial spark of freedom nor sufficient as its content. To regard liberation as the source of freedom is an eventalist credulity that has been discredited over and over, insofar as it does not warrant the maintaining and enhancing of freedom. But to identify liberation as the sufficient content of freedom produces a far graver outcome: irrationalism, and as a result, the precipitation of various forms of tyranny and fascism.

The sufficient content of freedom can only be found in reason. One must recognize the difference between a rational norm and a natural law—between the emancipation intrinsic in the explicit acknowledgement of the binding status of complying with reason, and the slavery associated with the deprivation of such a capacity to acknowledge, which is the condition of natural impulsion. In a strict sense, freedom is not liberation from slavery. It is the continuous unlearning of slavery.

The compulsion to update commitments as well as construct cognitive and practical technologies for exercising such feats of commitment-updating are two necessary di-

mensions of this unlearning procedure. Seen from a constructive and revisionary perspective, freedom is intelligence. A commitment to humanity or freedom that does not practically elaborate the meaning of this dictum has already abandoned its commitment and taken humanity hostage only to trudge through history for a day or two.

Liberal freedom, be it a social enterprise or an intuitive idea of being free from normative constraints (that is freedom without purpose and designed action), is a freedom that does not translate into intelligence, and for this reason, it is retroactively obsolete. To reconstitute a supposed constitution, to draw a functional link between identifying what is normatively good and making it true, to maintain and enhance the good and to endow the pursuit of the better with its own autonomy—such is the course of freedom. But this is also the definition of intelligence as the self-realization of practical freedom and functional autonomy that liberates itself in spite of its constitution.

Adaptation to an autonomous conception of reason—that is, the updating of commitments according to the progressive self-actualization of reason—is a struggle that coincides with the revisionary and constructive project of freedom. The first expression of such freedom is the establishment of an orientation—a hegemonic pointer—that highlights the synthetic and constructible passage that human ought to tread. But to tread this path, we must cross the cognitive Rubicon.

Indeed, the intervening attitude demanded by adaptation to a functionally autonomous reason suggests that the cognitive Rubicon has already been crossed. In order to navigate this synthetic path, there is no point in staring back at what once was, but has now been dissipated—like all illusory images—by the revisionary winds of reason.

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End of Part Two.