

Paideia and Affective Posthumanism: Reflections on Emotional Education Through Neuromodulation

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Abstract

In classical Greek understanding a paideia of emotions referenced both the concept and process of cultivating emotional skills, whose refinement structured a broader understanding of the human; in the modern, naturalistic interpretation emotions are the product of neural network activity and are cultivated through neuromodulation, which fashions the post human, a creature made incarnate according to a new anthropology of materialism, becoming, and malleability. Post humanist theory teaches an emancipatory ethic in which the cognitively rehabilitated and emotionally re-ordered creature will engage a broadly connected and more inclusive world. To make way for enlightenment notions of empowerment and universality in advancing its bio-technical revolution posthumanists proffer a reconception of the telos of the human being. The proposed reconfiguration of human emotions, however, is more widely symptomatic of an inversion of Aristotelian notions of essence and form. A product of Heidegger’s suborning of being and Whitehead’s abstraction of reality, posthumanist theory offers not only a deconstruction of anthropocentrism but through its treatment of the emotions a paideia of the deconstruction of anthropology itself.

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1 INTRODUCTION

In its classical formulation education functioned to serve the human being; acknowledged as anthropocentric and distinguished by his subjectivity, he was understood to possess a primary telos¹ to which epistemological and ontological frames made unified reference. A paideia of the emotions was thus intended to cultivate their expression by shaping them in conformity with this anthropology. Yet, in the contemporary and naturalized world, it is this human who is contested.

Perhaps nowhere is the stridency more evident than in current bioethical debates over his ontological status. Symptomatic of the tension is the new view of the emotions, now re-envisioned by neuroscience as a panegyric on evolutionary functionalism. Affective neuroscience thematizes, for example, that emotions serve behavioral functions promoting adaptations². The shaping of their response and the granting of its automaticity, moreover, is conceived in terms of habituating mechanisms, e.g. Hebbian conditioning, that enable the stabilization of adaptive responses operative at increasingly hierarchical levels. Habituation thus now replaces habit formation and the classical understanding of ‘habitus’ as epistemological concepts. In the view of affective neuroscience, therefore, emotions are evolutionarily designed behavioral circuits assisting in the fulfillment of particular inclinations, termed goal directed behaviors³. Their observation thus reveals the human telos as understood by such science.

It is from the perspective of this neuroscientific telos that the human is increasingly seen as ill adapted to the contemporary global and techno civilization⁴. This perception, together with the adaptive possibilities made accessible through sophisticated neurotechnologies, has prompted a re-envisioning of the human being as a new creature, the post human, to be refashioned by neuromodulation, particularly that of emotional circuits⁵. Theoretical observations on the features that should be assumed by this vision have been the subject of scholarly discourse in philosophy of science, global political theory, and ecological reflections, among many others⁶, now collectively referred to as post humanist philosophy. In its analysis post humanist philosophy offers a paideia on the content of the

new anthropology, and its normative considerations for grounding the process of recasting the human emotional spectrum.

This paper critically explores the anthropological lesson implicit in the new 'naturalized', emotional education. First considered are the principal conceptions of the post humanist anthropology as revealed in the proposed recasting, contrasted with their humanist origin. These have been used to legitimate the posthumanist vision and to frame its planning. Next explored are its normative features; how the conceived anthropology informs normative qualifications and how it may guide implementation of the new prospectus. We will argue that the originary discussion, and its theoretical evolution, selectively reference the naturalistic evidence used for legitimation, thereby inverting the values they are intending to encapsulate; the result, a reversion of the notion of anthropology as a formal unifying and distinguishing set of teleological attributes.

2 PAIDEIA, EMOTIONS, AND THE NEW ANTHROPOLOGY

2.1 *Material Ontology and Human Exceptionlessness*

While the appearance of post humanist philosophy is arguably the impetus of recent sophisticated technologies that can alter cognition, inevitably its justification finds roots in older discourse, notably the empirical trajectory initiated by Bacon and amplified by Descartes. On this older ground post humanism has substantially evolved its conception of the human, appropriating not only the Baconian mechanistic paradigm but successively accreting the attributes of integrational materialism and transformative ontology. Bacon's paradigm is a case in point in which the premise of a philosophy of science, determinism, serves to ground a novel ontology. In large part this has been due to the success of the empirical approach in demonstrating physical principles operative in the human brain, including most elementary functional features, such as information coding in neural spike trains. Emotions, arguably complex, are also classed within this paradigm, a claim recently reinforced by experiments purporting to shift the association between emotional responses and particular memories via the manipulation of bridging circuits⁷. The link claimed to be broadly demonstrated in empirical observations between physical function and behavior has thus led to a general equating of emotions with an ontological materialism.

The deterministic, and frequently reductionistic, interpretations that inevitably ensue, however, have been complicated on naturalistic and epistemological grounds. In the humanist perspective, by contrast, subjectivity

dominates discourse on a strong foundational ontology, and is constitutive of most definitional schema of personhood. Epistemologically, it is strictly irreducible to a fixed neural architecture. Emotions, in particular, are transparently understood to possess subjective character, to be a reflective feature of the self, and to be invested with semantic character. They are, moreover, themselves subject to redirection and conscious alteration through a process of self initiation, that appears to share roots with a naturalistic and nonreductionistic, downwardly efficacious, agency⁸. Nevertheless in the posthumanist assertion the human form in his cognitive and emotive dimensions remains ontologically indistinguishable from his physical composition.

The lesson taken within the neuroscientific community, and even more broadly amongst a range of disciplines reflecting on the human condition, is the lack of a clear *exceptionalness* norm distinguishing that which is human from the material and natural world. This message is amplified in the general claim that humans share through their neural activity in the same sorts of emotions that are observed in animal species. Advocates of ‘posthumanist’ undertakings routinely cite, for example, the blurring of the line between human and animal or human and machine in neurotechnological and genetic manipulations that may yield biologically viable products. Distinctions that may be laid claim to in their subjective and emotive dimensions, e.g. intentional empathic concern, are typically deemphasized. The lack of such an emphasis has by default underwritten contemporary efforts to view the human being, and the behavioral features and inclinations to which he is privy, as *exceptionless*⁹.

2.2 *Situational Embedding and Anachronicity*

This view has introduced a second attribute that is said to characterize the human condition: the nature of his relationship with, and hence the manner of his participation in, the exterior and natural world¹⁰. In the anthropocentric perspective, wherein the human being was referenced as superior with respect to the externalized nonhuman world, their relationship was structured through a manifest subject/object distinction. The new perspective denies this difference; thus, he is seen as situationally embedded and ontologically integrated within a broader and more dynamic environment that is cognitively and multidimensionally diverse. The ascription of the emotions by actor network theory¹¹ in so extended a world, further, functionalizes their purpose solely to semantic and orientational capacities. Key here is the deployment of a materialist understanding of a much broader, more connected relationality that is opposed to the exteriority and fixity of struc-

tures in the natural, or social, world. Indeed, the conception of a binary, anthropocentric world is wholly invalidated in such a view.

What is made apparent in the new and extended materialism is the need for adaptation, based upon the requirement for the human to adjust to the complexity of so interconnected a world, one no longer conditioned by his centrality. This fitting has been the subject of direct reference in the material vitalism to which the human frame is to be submitted. The vitalist philosopher Bruno Latour¹² argues that whereas «...the ecological crisis presents itself above all as generalized revolt of means... each (participant) demands to be taken as an end...» In the posthuman, materially laden world, then, the human is to be identified by, and made subject to, a process of becoming in which all are equally entitled, and in which any feature may be altered.

In such a situation human freedom is increasingly restricted, dispersed to noncognitive, agentic others in a process that is no longer subjectively dictated¹³. Who, then, in the absence of subjectivity and the human emotional panoply, is to imbue meaning to these transactions? And from where, moreover, is the regularity in intercourse to originate that will establish an enduring fitness for the human? It is argued that the answer to such questions will flow from an appraisal of the limits of human capacities. The answer that is provided, however, is referenced by the otherness of the exterior world, in which human cognition and emotional attributes are necessarily foreign.

Seen from this foreign perspective the body, and the cognitive structure of which it is supportive, have been considered ill suited to the sort of embedded exchange that material vitalists speak of. There is cited, in the first place, the biological endowment that is conditioned by a patrimony preceding the paleolithic. The very age of the body's design, and the extraordinary lethargy of the naturally adaptive mechanisms transforming its conditioned status, is seen to preclude adjustment to much more rapidly developing cultural and technological landscapes operating on ever more restricted time scales¹⁴. The emotions in particular, come in for serious scrutiny. Passions, and other components of the Thomistic irascible schema are made frequent reference to as ancient baggage no longer suited to the global politicized framework required for civilized intercourse. Veronique Pin-Fat¹⁵, for example, argues against an emotional constitution that constrains the rational faculty by «specific dispositions such as passions, emotion... and animalistic urges.» A second consideration pointed to is the dichotomy between the body and the increasing technical mastery over matter in which the very structure of the material fabric is now being renovated. Symptomatic of the dissatisfaction, and a reflection shared by a broad consensus of post human-

ists, is the statement of Australian artist Stelios Arcadiou¹⁶ «The body is an anachronistic shell, which we have to get rid of as soon as possible.» Indeed, the transformations called for are of a radical restructuring of the human being and his emotional repertoire through cognitive alteration.

2.3 *A Philosophy of Limitless Change*

In light of such negative sentiments posthumanism points to a third attribute serving to legitimate a wholesale revisioning of human cognition, the brain's anatomically and physiologically plastic structure. There is first cited the observation that the brain, and its emotional repertoire, is the product of a slow and lengthy evolutionary heritage, a claim echoed by affective neuroscience and evolutionary psychology¹⁷. Change, according to such advocates, in the large and global sense made reference to in evolutionary scenarios, represents a constitutive property of the human brain. This conclusion has been reinforced by a second, apparently general, observation of neuroplasticity, wherein information processing via brain activity, of the sort associated with learning and habit formation, incurs rapid transitions in brain microanatomy and microphysiology¹⁸. Habits that may constrain emotions are thus interpreted to be the products of biophysical events occurring at a neuronal level. This has led to the conclusion that the brain in its currently evolved form is itself dynamic and plastic, undergoing a continual remodeling throughout the life of the individual.

Emerging from such considerations has been a philosophy of malleability¹⁹, in which the cognitive structure is seen as the critical player. In such a philosophy the paradigm for human development assumes an evolutionary trajectory, with its trilogy of Darwinian origin, cultural present, and techno future. According to this paradigm the human being, particularly his brain, is malleable by nature and it is this malleability that will shape not only the individual but also the form in which his relational engagement is contextualized.

What is distinctive in the post human understanding, however, and clearly at odds with its humanist counterpart, is the philosophical siting, hence, the inordinate extrapolation intended, in a vision of change, bartered with a single currency, information – indeed the only permissible coinage – stored in endless strings of numerical matrices²⁰. Through the virtually inexhaustible rearrangements of such patterned arrays, and founded on a repository of hundreds of billions of neurons, the cognitive, affective apparatus is seen as being made and remade to suit virtually any exigency.

Yet this vision and its invocation of an evolutionary paradigm is problematic, for higher order cognitive function generally, and even more so for the emotions. Not appearing in such endless landscapes is the physical regularity of the natural world in which constraints to change are imposed necessarily, which undergird the obvious developmental and evolutionary progression that has given rise to the human cognitive apparatus, and which absent the operational hierarchy that seems inherently invested in the cognitive structure as a whole, among even the most primitive organisms. Evolutionary psychologists, notably, propose a rule based progression in the evolution of emotions, with their successive and successful integration into motivational circuits. The significance of their integration into the human psychological inheritance, particularly in his social and communitarian dimensions, is emphasized by social neuroscientist John Cacioppo²¹ «Although the obstacles of a civilized world occasionally call forth blind rages, emotions are increasingly recognized for the constructive role they play in higher forms of human experience» In its neglect of such observations post humanist theory proposes malleability as a defining attribute, yet remains selective in its choice of which natural determinants to reference for its legitimation.

3 A PAIDEIA OF POST ENLIGHTENMENT TELOS

3.1 *The Enlightenment Prospectus*

Rooted in attributes that it designates as human, post humanism offers a disclosure of the normative qualifications intended to propel its pragmatic endeavors. Their preliminary revelation embraces a specifically enlightenment agenda, with its advocacy of human maturation and empowerment, emancipation, rationality, and universality, to be attained by access to the material and malleable propensities it has appraised. Nick Bostrom, director of Oxford's Future of Humanity Institute, cites two phases, a transitional and final one, termed transhumanism and posthumanism, respectively. The first affirms a restructuring of the human condition «...to greatly enhance human intellectual, physical, and psychological capacities...» For the most part these encompass greatly exalted forms of what is already present, such as improved sensory or motoric abilities and are, therefore, changes in degree rather than in kind, i.e., constituting an ultra(trans)humanist trajectory²². More radical is the second stage with proposals for generating the posthuman. The evolution to this state is defined by Bostrom as «... possible future beings... so radically exceeding those of present humans as to be

no longer unambiguously human . . . » involving « . . . radical technological transformations to our brains and bodies . . . ».

Prospective movements toward the post human state may be seen, in fact, in two types of proposals, those modifying what are intrinsically bodily boundaries, and those modulating the emotions. In the former, novel technologies increasingly blur the line between the body and its functional extensions, aptly described in the semantic reconfiguration of Donna Haraway's *Cyborg Manifesto*²³. Proposed here is a hybridization of the human being through technology, termed cyborgisation, involving an initial transformation in which sensory and motoric capabilities are gradually amplified and extended beyond the corporeal perimeter, a process already substantially underway in therapeutic contexts. The incorporation of such technologies thus begins a process of bodily extension intended to circumvent its biological finitude.

Proposals to render human emotions transiently, and even permanently modified, seek to take human transformation much further. The explicit association of emotions with objective ends such as fear and preservation of life or love and social communion, a position tacitly acknowledged by affective neuroscience²⁴, means that their rewriting through a process of cognitive restructuring is intended to assist in achieving a fundamental alteration in the telos of the human being. Charles Laughlin²⁵, for example, expresses this intention in his « . . . fourth stage of the exogenous penetration of the human brain . . . », wherein the brain would be modified by an array of bio-chips mediating emotion, and even fundamental cognitive activity. More radical still are attempts to curtail emotional drives by an elimination of the body altogether²⁶. As the body is the locus of emotive expression, and the vehicle of social unity, its elimination intends to render social intercourse immune to the exigencies of unreflective communion, indeed to minimize the influence of a 'narrowly conceived' anthropocentrism.

What is evident, and promulgated, in these efforts is not simply the intent to master nature and human nature, but, as expressed by transhumanism, to regard this initial undertaking as transitional and preparatory toward a more radical movement seeking to replace that which is human. The posthuman project sketch of Nick Bostrom, in fact, seeks to transform human nature through the creation of superior creatures, self propelled by an unhindered rationality. Veronique Pin-Fat, for example, conjoins disembodiment and the consequential loss of emotional drives to a freeing of the rational faculty for sovereignty and autonomy²⁷. Gone are the constraining limitations, in this view, that suborn reason to a fixed set of inclinations, and substituted is an emancipatory ethic of agency and inclusion. Made available

is a new and vastly broader access²⁸ to the natural world that is grounded on a common ontology in which older, binary distinctions between the human and natural order have been eradicated²⁹, supplemented, moreover, with a naturalized and fitted moral bioenhancement³⁰.

3.2 *A Heideggerian Deconstruction*

The facile identification with the aspirations of a reinvigorated and renovated enlightenment perspective is deceiving however. The lesson that is intended, in fact, makes its reference to enlightenment values only obliquely. In the enlightenment there is the presupposition that the anthropos of human nature is sufficiently stable for determinate and enduring human goods or liberal democratic values to attach. Indeed, Nietzsche's Zarathustra embodies the perfect man not the changed and no longer recognizable one.

The naturalistic and posthumanistic offering, however, in reconfiguring human nature, manipulates the ground for attachment and so reconfigures the manner of contingency by which such values cohere. In the new understanding that which is constitutive is the malleability of the human being, a perspective also found in German philosophical anthropology and aptly expressed by Francois Dagonet³¹ «...what is significant in nature is its plasticity...» Such plasticity is not merely a matter of degree, but rather, as exemplified in the reconfiguration and redaction of the emotions, entails a radical openness to material change in its expressed intent of overcoming all false binary divisions resulting from subject/object dichotomy. The universality that is sought for in enlightenment views is thus a oneness and integration with the whole of the natural world, where relation is mediated at the level of material being in cycles of ceaseless change. Wolfe describes the ultimate destination of the logic of this trajectory «...wherein an internally disordered, malleable, emergent human self exists in a relation of entwinement with a differential and differentiating external world...»³². His formless, posthuman being continues the trajectory of multiple, fluid, and networked identities begun in Heidegger's reversal of anthropocentrism and being and Whitehead's abstraction of reality³³. Lost in such an emphasis is the Aristotelian understanding of a broader causality in the face of variation and change. In its place is the materialistic reductionism of the doctrine of eternal recurrence dominated by an efficient causality in Nietzsche's reciprocal exchange of chaos and force³⁴. Lost too is the emancipatory ethic of freedom in a world of arbitrary relations. In the deconstruction of the human, enlightenment values are thereby inverted, emptied of their original intent: universality without relation; emancipation without freedom; em-

powerment without agency. Ultimately, it is a wisdom that is illumined by self reflection, rather than by the evidence of any external and natural light. It is unlike that of the Wise Men of Ephiphany who, as described by Pope Francis, « represent men and women who seek God in the world's religions and philosophies: an unending quest... »³⁵.

4 CONCLUSION

If the lesson of posthumanist theory is reversal and a tending toward dissipation it is not a wholly unexpected one, the logic, ultimately, of the imposition of a Cartesian I to which even cognition must bend. It is, moreover, a lesson that is at odds with the natural world, overflowing with the abundance of form, set on a trajectory toward complexity, hierarchy, and self reflective subjectivity. In the midst of natural variation, there is clearly the development of more sophisticated natural associations as well as the emergence of ever more ordered, integrally functioning systems. This is the testimony of biological variation and progression.

Conversely, it is in the redaction of those systems that we begin the deconstruction of that which they are tending toward. In posthumanism's redaction of the emotions there is extended Heidegger's deconstruction of being-with-form. It is a message of inclusiveness without relation and of rationality without direction. This is the paideia that is immersed in posthumanistic theory. It is this redaction that popular cultural depictions of the posthuman resist, asserting that «... of all possible features that can be modified it is the experiences of the body, perceived through sensation and processed through emotion, that remain the locus of identity... that hold open even the biomechanically modified human to a vulnerability seen as essential to maintaining humanness... »³⁶.

NOTES

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