ON REASON AND SPECTRAL MACHINES: AN ANTI-NORMATIVIST RESPONSE TO BOUNDED POSTHUMANISM

David Roden, Open University

Introduction: Bounded Posthumanism

Posthumanism can be critical or speculative in orientation. Both forms are critical of human-centered (anthropocentric) thinking. However, their rejection of anthropocentricism applies to different areas: Critical Posthumanism (CP) rejects the anthropocentrism of modern philosophy and intellectual life; Speculative Posthumanism (SP) opposes human-centric thinking about the long-run implications of modern technology.

Whereas critical posthumanists are interested in the posthuman as a cultural and political condition, speculative posthumanists are interested in a possibility of certain technologically created nonhuman agents. They claim that *there could be posthumans* - where posthumans would be "wide human descendants"[1] of current humans that have become nonhuman in virtue of some process of technical alteration (Roden 2012; 2014, Chapter 5). [2]

Despite differences in concern and methodology, however, CP and SP have convergent interests. CP requires that there are no transcendental conditions for agenthood derivable from parochial facts about human agency. If this is right, this absence of constraint holds of possible nonhuman agents as it is of actual nonhuman agents.

For this reason, I distinguish two claims regarding technological successors to current humans: an *anthropologically bounded posthumanism* (ABP); and an *anthropologically unbounded posthumanism* (AUP).

ABP holds:

1. There are unique constraints C [on cognition and agency] that all agents satisfy.

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[1] I've coined the term "wide descent" because exclusive consideration of biological descendants of humanity as candidates for posthumanity would be excessively restrictive. Posthuman-making technologies may involve discrete bio-technical modifications of the reproductive process such as human cloning, the introduction of transgenic or artificial genetic material or seemingly exotic processes like mind uploading. Thus entities warranting our concern with the posthuman could emerge via modified biological descent, recursive extension of AI technologies (involving human and/or non-human designers), quasi-biological descent from synthetic organisms, a convergence of the above, or via some technogenetic process yet to be envisaged! (Roden 2012; 2014: 22)

[2] This formulation allows that posthumans could be descended from technological assemblages that are existentially dependent on servicing "narrow" human goals. Becoming nonhuman in this sense is not a matter of losing a human essence but of ceasing to belong to a human-oriented socio-technical system which I call the "Wide Human" (Roden 2012; 2014: 109-113). I refer to the claim that becoming posthuman consists in becoming independent of the Wide Human as "the Disconnection Thesis". Several critical discussions of the disconnection thesis and related themes in my book Posthuman Life: *Philosophy at the Edge of the Human* are archived at http://www.philpercs.com/2015/07/posthuman-life-reading-group-summer-2015.html.

2. Any agent that knows it is an agent can correctly infer that C applies to all agents (The C are transcendental conditions)

3. Human agents know they are agents.

4. Human agents can correctly infer that all agents satisfy C.

5. Posthumans (if such existed) would be agents.[3]

   Human agents can correctly infer that posthuman agents would satisfy C.

ABP's purport becomes clearer if we consider the collection of histories whereby posthuman wide descendants of humans could feasibly emerge. In *Posthuman Life* I refer to this set as Posthuman Possibility Space (PPS – See Roden 2014: 53).

Given that posthumans would be agents of *some* kind (See Chapter 6) and given ABP, members of PPS would have to satisfy the same transcendental conditions (C) on agency as humans.

Daryl Wennemann assumes something along these lines in his book *Posthuman Personhood.* He adopts the Kantian idea that agency consists in the capacity to justify one's actions according to reasons and shared norms. For Wennemann, a person is a being able to "reflect on himself and his world from the perspective of a being sharing in a certain community." (Punzo 1969, cited in Wennemann 2013: 47). This is a condition of posthuman agency as much as of human agency

This implies that, whatever the future throws up, posthuman agents will be social and, arguably linguistic beings, even if they are robots or computers, have strange bodies, or even stranger habits. If so, PPS cannot contain non-anthropomorphic entities whose agency is significantly nonhuman in nature.

ABP thus implies *a priori* limits on posthuman *weirdness*.

AUP, by contrast, leaves the nature of posthuman agency to be settled *empirically* (or technologically). Posthumans might be social, discursive creatures; or they might be different from us in ways that we cannot envisage short of making some posthumans or becoming posthuman ourselves.

AUP thus extends the critical posthumanist rejection of anthropocentrism to the deep time of the technological future.

In *Posthuman Life* I defended AUP via a critique of Donald Davidson's work on intentionality; coupling this with a "naturalistic deconstruction" of transcendental phenomenology in its Husserlian and Heideggerian forms (See also Roden 2013). Some of these arguments, I believe, carry over to the more overtly normativist philosophy of Robert

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[3] See Roden 2014, Chapter 5 and 6.

Brandom - a philosopher whose work I did not address in detail there. The account of the relationship between normativity, social practice, intentionality that Brandom provides in *Making It Explicit*, and in other writings, is one of most impressively detailed, systematic and historically self-aware attempts to explain subjectivity, agency and intentionality in terms of social practices and statuses. Since, as I hope to show, they likewise imply a strong form of ABP, they merit appraisal by philosophical posthumanists, whether of a critical or a speculative bent.

First and Second-Class Agents

I will begin with a thumbnail sketch of how Brandom derives conditions of possibility for agency and meaning from a theory of social practices. Then I will consider whether its foundations are capable of supporting this transcendental superstructure.

Brandom is a philosophical pragmatist. Like other pragmatists, he claims that our conceptual and intellectual powers are grounded in our practical abilities rather than in relations between mental entities and what they represent (Brandom 2006).[4]

His pragmatism implies a species of interpretationism with regard to intentional content. Interpretationists, such as Daniel Dennett, claim that intentional notions such as "belief" do not track inner vehicles of content but help us assess patterns of rational activity on the part of other "intentional systems" (Wanderer 2008: 29-30). Belief-desire talk is not a folk psychological "theory" about internal states, but a social "craft" for evaluating and predicting other rational agents.

For Dennett, an entity qualifies as an agent with reasons if predicting its behaviour requires interpreters to attribute it the beliefs and desires it ought to have given its nature and environment. A being whose behaviour is "voluminously predictable" under this "intentional stance" is called an "intentional system" (IS). In IS theory, there is no gap between predictability under the intentional stance and having real intentionality (Dennett 1987: 13-42).[5]

Brandom endorses Dennett's claim that intentional concepts are fundamentally about rendering agency intelligible in the light of reasons.

However he argues that IS theory furnishes an incomplete account or intentionality. Interpretation is, after all, an *intentional* act; thus interpretationists need to elucidate the relationship between attributed intentionality and *attributing* intentionality. If we do not

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[4] Brandom also follows Kant in trying to understand semantic notions like reference and truth in terms of their roles in articulating judgements rather than as semantic or representational primitives (Brandom 1994: 79-80).

[5] Intentional systems are unlikely to contain just sawdust or stuffing, but IS theory is agnostic regarding their internal machinery. Thus it undercuts both eliminativism and reductionism while providing a workable methodology for investigations into the mechanisms that actuate intentional systems.

understand what kind of being could count as a prospective interpreter, we cannot claim to have understood what it is to attribute intentionality in the first place (Brandom 1994: 59).

Brandom goes one further. The intentionality attributed to intrinsically meaningless events or linguistic inscriptions seems entirely derived from interpreters. Similarly with relatively simple IS's. Maze-running robots or fly-catching frogs can properly be understood from the intentional stance - making them true-believers by Dennett's lights. But their intentionality seems likewise observer-relative; *derived* from attitudes of *interpreting* IS's (60). To hold otherwise, he argues, is to risk a disabling regress. For if intentionality is derivative all the way up, there can be no real intentional attributions and thus no derivative (non-observer relative) intentionality (60, 276).

Brandom claims that his theory can be read as an account of the conditions an organism must satisfy to qualify an *interpreting intentional system*; that is, to warrant attributions of *non-derived* intentionality rather than the as-if intentionality we can attribute to simpler organisms or complex devices:

> The theory developed in this work can be thought of as an account of the stance of attributing original intentionality. It offers an answer to the question, What features must one's interpretation of a community exhibit in order properly to be said to be an interpretation of them as engaging in practices sufficient to confer genuinely propositional content on the performances, statuses, attitudes, and expressions caught up in those practices? (61)

Whatever else the capacity for original or "first class" intentionality includes, it must involve the ability to evaluate the cognizance and rationality of their actions and the actions of other beings (61).[6] Entities with the capacity to assess and answer to reasons in this way are referred to by Brandom as *sapient*. Entities with only derived intentionality may exhibit the *sentient* capacity to react in discriminating and optimizing ways to their environment, but the conceptual content of these responses is attributed and observer-relative.

The claim that intentionality (or the capacity for objective thought) implies the capacity to evaluate reasons obviously has a rich post-Kantian lineage. However, one of the clearest arguments for connecting intentionality and the capacity for other-evaluation is provided by Donald Davidson in his essay "Thought and Talk" (Davidson 1984: 155-170).

Davidson begins with the assumption that belief is an attitude of "holding" true some proposition: for example, that there is a cat behind that wall. If belief is holding true it entails a grasp of truth and the possibility of being mistaken; and thus a concept of belief itself. We cannot have a concept of belief without exercising it. Thus we cannot believe anything

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[6] "The key to the account is that an interpretation of this sort must interpret community members as taking or treating each other in practice as adopting intentionally contentful commitments and other normative statuses" (Brandom 1994: 61)

without the capacity to attribute to others true or false beliefs about the same topic (Davidson 1984: 170; 2001b: 104).

This capacity presupposes linguistic abilities, according to Davidson, because attributing contents to fellow creatures requires a common idiom of expression. Absent this, the possession of a concept of belief and, thus, the very *having of beliefs*, is impossible (Roden 2014: 62).

> Our manner of attributing attitudes ensures that all the expressive power of language can be used to make such distinctions. One can believe that Scott is not the author of Waverley while not doubting that Scott is Scott; one can want to be the discoverer of a creature with a heart without wanting to be the discoverer of a creature with a kidney. One can intend to bite into the apple in the hand without intending to bite into the only apple with a worm in it; and so forth. The intensionality we make so much of in the attribution of thoughts is very hard to make much of when speech is not present. The dog, we say, knows that its master is home. But does it know that Mr Smith (who is his master), or that the president of the bank (who is that same master), is home? We have no real idea how to settle, or make sense of, these questions (Davidson 1984: 163).

Brandom agrees! We need language to have and attribute beliefs, and, by extension, practical attitudes corresponding to desires and intentions (231-2). However, his official account avoids talk of beliefs or intentions in order to steer clear of the picture of beliefs, etc. as "inner" vehicles of content (sentences in the head, say) rather than social statuses available to discursive creatures like ourselves.

For Brandom, the primary bearers of propositional content are public assertions. Thus he bases his elaborate theory of intentionality not on a theory of mental representations or sub-propositional concepts, but on a pragmatic account of the place of assertions within the social game of "giving and asking for reasons".

Correlatively, Brandom's semantics begins with an explanation of how assertions – and their syntactical proxies, sentences – acquire propositional content.[7] Like Wilfred Sellars' brand of functional semantics, it is framed in terms of the normative role of utterances within social practices that determine how a speaker can move from one position in the language-game to another (language-transition rules), assume an "initial position" (language-entry rules) or exit the game (Sellars 1954, 1974).

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[7] His subsequent, very rich, analysis of subsentential expressions is necessarily *decompositional* rather than compositional (Brandom 1994: 79-82). For example, the difference between a predicate and a singular term is understood in terms of the different inferential consequence which follow from their inter-substitution within sentences (368)

In the case of assertions, the language-transition rules correspond to materially correct inferences such as that *x is coloured* from *x is red*. Language-entry rules are non-inferential since they are made on the basis of reliable dispositions to discriminate the world in inferentially consequential ways (Sellars 1954: 209-10). As Brandom puts it, statements like "This is red" (uttered in response to red things) are "noninferentially elicited but inferentially articulated" (Brandom 1994: 235, 258). Finally, "language exit rules" correspond to practical commitments disposing one to forms of non-linguistic action.

Thus Brandom agrees with other post-Wittgensteinian pragmatists that linguistic practices are governed by public norms, as well as by reliable differential responsive dispositions (RDRD's). However, he follows Davidson in rejecting the "I-we" conception of social structure (39-40; Davidson 1986). If meanings are inferential roles (as Dummett and Sellars also claim), then the content attributable to expressions will dance in line with the doxastic commitments of individual speakers.

Suppose one observes a masked figure in a red costume clambering up a skyscraper. The language entry rules you have internalised may entitle you (by default) to claim that Spiderman is climbing the building. However, you are unaware that Spiderman is none other than Peter Parker. So you are not yet entitled to infer that *Peter Parker* is climbing the building – although the "substitution-inferential" rules of English would entitle you to that further claim if (say) some reliable authority informed you of this fact.[8]

This simple example shows that the inferential roles – thus meanings - of expressions like "Spiderman" are not fixed communally but vary with the auxiliary assumptions, sensitivities and dispositions of individual speakers. Understanding or interpreting the utterances and beliefs of others is a matter of *deontic scorekeeping* – that is keeping track of the way social statuses alter as speakers update their inferential commitments (Brandom 1994: 142).[9] *Thus semantic and intentional content are co-extensive with the normative-functional roles of states and actions.* It follows that what a belief or claim "represents" or is "about" is fixed by the status it can be ascribed from the perspective of various deontic scorekeepers (including the believer or claimant).

Functional semantics can be thought of as a philosophical appropriation of the formal conception of computation as automated symbol manipulation developed in the early part of

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[8] I.e. that the inferential move in the language game from "Spiderman is climbing the building" to "Peter Parker is climbing the building" is materially valid.

[9] The point of attributions of belief or desire, for example, is to determine what an agent is committed entitled "to say or do". Likewise, the point of affixing truth values to beliefs or statements is to assess or endorse their propriety within the game of giving and asking for reasons. Is the claimant entitled to assert that p? Are the inferential consequences of p that they acknowledge the actual consequences? (17, 542).

the Twentieth Century.[10] In its purely mathematical form a computational engine can be understood as a set of "state transitions" fixing how the data stored in some memory location determines consecutive states of the machine. A Turing machine's table, for example, "completely determines" how it would behave when reading a particular symbol at a particular memory location on its "tape" while in a particular state (Copeland 1996: 341-3).[11]

The obvious attraction this socio-mechanical metaphor to contemporary philosophical materialists like Ray Brassier is that it promises to cash out abstract notions such "meaning" or "representation" in terms that are, at first sight, closer to home: people uttering and inscribing marks; responding and acting to the impulsions of a shared natural world (Brassier 2013). However, with Brandom's social machines the inferential transitions are not formally or causally determined but *required or permitted*. As we shall see in the following two sections, this network of proprieties (and thus the social apparatus they compose) is somewhat spectral and elusive since Brandom does not consider them to be factually real but spun from the passing attitudes of the scorekeepers.

Brandom, like Davidson, argues that the ascription and adoption of such states is only possible if the scorekeepers can practically express them in a structured language with components such as predicates and singular terms (Brandom 1994: Chapter 6). Thus, as advertised, Brandom's account suggests a pragmatic-semantic story with which to transcendentally partition PPS. If posthumans are to be intentional agents in thrall to concepts, they will be subjects of discourse assessing one another according to public inferential proprieties.

The Norm-Grounding Problem

However, we have grounds for partitioning PPS along these lines only if normativism can contend with some difficult foundational issues deriving from the aforementioned spectrality of inferential roles. I will refer to the most pressing of these as "the norm-grounding problem".

Brandom's pragmatics implies that the rules that furnish deontic statuses are implicit in *what we do*: in our linguistic and non-linguistic performances, rather than in some explicit set of semantic rules. But what does it mean for a norm to be implicit in a practice? (Brandom 1994: 29-30; Hattiangadi 2003: 420; Rosen 1997). What is it about what we *do* that

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[10] Sellars, for example, is happy to accept that learning to infer, is at base, a matter of internalizing formal transformation rules (Sellars 1954: 209).

[11] The table specifies which operation the machine carries out when in a particular machine state (say, q0) and a particular symbol is lying on square current being scanned. The table may, for example, specify that if the machine is in q0 and a "0" is on the current square, then it should erase "0", replace it with a "1", move right, and enter another state (e.g. q2). These simple "read", "erase", "write" operations can manipulate the contents of the tape, can generate an output corresponding to the value of a function when appropriately choreographed by the machine table – for example, a the binary expression of a fraction (See Petzold 2008).

constitutes our observance of one norm rather than another? Are norms a special kind of fact, to which our practices conform or fail to conform? If there were normative facts that transcended our actions, this could at least explain how our inferences can be held to account by them.

Brandom rejects factualism regarding norms. They are not, he claims, "part of the intrinsic nature of things, which is entirely indifferent to them" (48: Rosen 1997: 163-4).

This seems wise on the face of it. If there are Platonic norms, it is far from clear how animals like us, or our evolutionary forebears, could come to be aware of them. Brandom thus adopts a nonfactualist or "phenomenalist" position regarding norms. Non-normative reality is "clothed" in a weave of normative statuses when speakers treat public actions as correct or incorrect, permitted or entitled (Brandom 1994: 48).

However, before considering Brandom's nonfactualist account of norms in greater detail, it is instructive to consider a superficially appealing position that he rejects: *regularism*. Regularism is the claim that norms are regularities. To act according to a norm (or follow a rule) is simply to conform with a regularity (27). Regularism is consonant with pragmatism because one can conform to a regularity without one having explicit knowledge of it. This avoiding the vicious regress that ensues if we require that semantical rules need to be explicitly grasped by speakers (Brandom 1994: 24-5). Regularism also appeals to philosophical naturalists because it explains how norms depend (or supervene) on facts about the physical state and structure of individual speakers.

However, Brandom rejects this attempt to ground normative claims in factual claims. Here he follows Kripke's seminal reading of Wittgenstein's discussion of rule-following: pointing out that any finite sequence of actions will conform to a possibly infinite number of regularities. Thus suppose, as in Kripke's original example, that all the addition sums I performed involve values less than 57. My addition behaviour is consistent with the function that always maps two values onto their sum. But it is also consistent with the function "quss" that maps two numbers onto their sum if each is less than 57 and onto 5 otherwise (Kripke 1982: 9).

There will be an infinite number of such interpretations of my arithmetical practice, no less consistent with it than with the plus function. And this situation will apply for any maximum summed values.[12] So any episode of my supposed "additive" behaviour will be equally interpretable as quaddative. Similar considerations apply for any maximum of summed values and extend to empirical concepts – as the easy definition of "gruesome" predicates

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[12] So in addition to *quss*, we can define the function *wuss*. Where

x *wuss* y = x + y if x, y < 58
else, x *wuss* y = 5

And so on!

illustrates. Thus historical applications of the term "horse" to its instances are behaviourally consonant with the rule for the predicate "shmorse" - which applies to a thing if it is observed before the year 30,000 and is a horse, or is not observed and is a cat.

The take home moral is that there is no such thing as the unique regularity that a finite performance conforms to. Moreover, for any continuation of that performance "there is some regularity with respect to which it counts as 'going on in the same way'" (Brandom 1994: 28). There are just too many ways of *gerrymandering regularities* for any given continuation of a performance; and the simple regularity view provides no basis for selecting between them. So the simple regularity account fails to explain how a determinate norm can be implicit in practice.

One appealing response to the failure of the simple regularity view is to shift attention from finite stretches of performance "to the sets of performances (for instance, applications of a concept) the individual is *disposed* to produce" (ibid: my emphasis). The appeal of unpacking grasping a rule in terms of dispositions is that it might be that one could be disposed to do an infinite number of things that one never gets round to doing due to lack of time or the absence of triggering input (Martin and Heil 1998: 284).[13] So a dispositional analysis at least seems set to capture the infinitary nature of concepts in naturalistically admissible ways.

So it might seem that we can avoid the gerrymandering objection by saying that different agents A and B grasp the same rules where they are disposed to perform identically given the same triggering inputs. However, Brandom rejects the dispositionalist account of rule following. Following Kripke he claims that dispositionalism is unable to account for misapplications of a rule. Abiding by a rule has to be compatible with errors in performance (Brandom 1994: 29, 31). One can violate a norm. But one cannot, he claims, act in violation of one's dispositions. For example, A might be disposed to behave identically under the same triggering conditions as B. But whereas A is correctly applying the adding rule, B could be incorrectly *quadding* or misapplying some other rule.[14] If a dispositionalist grounding of norms treats dispositions counterfactually, then, it will be unable to account for the mismatch between the rule followed and its application.

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[13] So is not necessary for the rule user to have all the triggering instances "before his mind" to have grasped how to perform in any of these instances.

[14] By extension a straight dispositional analysis would not distinguish someone who means *grue* by "green" but has been neurologically interfered with so that they would apply it (incorrectly) to green things after 2010 and a user of "green" who would be disposed to apply it to exactly the same items.

So dispositions (at least, if counterfactually conceived) do not help solve the norm-grounding problem (Martin and Heil 1998: 284-5).[15]

Deontic Statuses and Deontic Attitudes

As advertised, Brandom's favoured account of norms is nonfactualist. We "clothe" a nonnormative world in deontic statuses, he claims, by *taking* certain actions or utterances to be correct or incorrect (Brandom 1994: 161). Normative statuses arise only insofar as there are creatures that can treat *one another as committed or entitled to do this or that*. In Brandom's terminology: deontic statuses as assigned when creatures adopt *deontic attitudes* towards one another.

> Looking at the practices a little more closely involves cashing out the talk of deontic statuses by translating it into talk of deontic attitudes. Practitioners take or treat themselves and others as having various commitments and entitlements. They keep score on deontic statuses by attributing those statuses to others and undertaking them themselves. The significance of a performance is the difference it makes in the deontic score-that is, the way in which it changes what commitments and entitlements the practitioners, including the performer, attribute to each other and acquire, acknowledge, or undertake themselves." (Brandom 1994: 166).

But what are deontic attitudes?

If – like *propositional* attitudes – they are inherently intentional Brandom is stuck in a regress. The philosophical attraction of normative functionalism is that it promises to reduce intention-talk to norm-talk. If deontic attitudes are necessarily intentional, however, he has made little progress in explaining interpreting intentionality in terms of social practices.

Moreover, his account would fail to accord with a modest Darwinian naturalism regarding the emergence of the intentional. The requirement I have in mind is Darwinian in the loose sense that it holds that the intentional and the mental are not basic features of the world but depend on the way heterogeneous arrangements of mindless (or less minded) things interact with one another.[16] Note that this commitment is not restricted to analytic naturalists like Dennett or Jerry Fodor. It applies to continental materialists and critical posthumanists who, in Pramod Nayar's words seek ""the radical decentering of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always already evolving with, constituted by and constitutive of multiple forms of life and machines" (Nayar 2014: 2). They have to deny the existence of basic psychological properties for such a project to have any prospect of decentering *anything*. The decentering effect of the claim

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[15] Martin and Heil 1998 present a very interesting case for holding that dispositional accounts of rule following can avoid Kripkensteinian skeptical conclusions if dispositions are construed realistically rather than in terms of statements about counterfactual behaviour. Then it could be true of A and B that they would perform identically even though A is disposed to follow the plus rule whereas B is disposed to follow the quss rule. This is because B's disposition could be "blocked" in some way accounting for the error. Howhy 2003 develops a similar account.

[16] Bryant 2014 provides a useful summary of how this kind of naturalism can be cashed as a Deleuzean Machine-Oriented Ontology (MOO).

that humans are constituted by congeries of machines and life-forms presupposes that these heterogeneous are not themselves the kind of thing that possess autonomy or subjectivity as classically conceived.

However, such positions need to go further and provide explanations for the emergence of mental properties in a non-mental world or (if they are deflationary) for the emergence of systems that can attribute such psychological states can arise. This is because all such accounts must deny that such powers emerge "spookily" – i.e. in ways that are recalcitrant to explanation. This point is recognised, for example, by the Deleuzean philosopher of science Manuel DeLanda who proposes that any account of explanation of emergent behaviour in a given system should have a mechanistic component framed in terms of its components and ecological relations: for example, a system of chemical reactants far from equilibrium, or a population of individuals in a pre-state society (DeLanda 2011: 13-15).[17] Spooky or strong emergence would de-fang the decentering effect by allowing subjectivity to jump fully formed out of the slime of heterogeneity even where these attributes do not form part of the basic furniture of the world.

Naturalists, materialists and posthumanists should, then, require that our theories of intentionality be compatible with some gradualist explanation of the development of intentional systems from non-intentional ones. In this instance, that norm-instituting powers cannot have appeared fully formed but must have emerged gradually from the scum of sentience (Rosen 1997).

Brandom is properly sensitive to these requirements. As he puts: "It is clear that there were nonlinguistic animals before there were linguistic ones, and the latter did not arise by magic." (155). The capacity to ascribe deontic and practical commitments in discourse presupposes a story whereby "suitably social creatures can learn to distinguish in their practice between performances that are treated as correct by their fellows". Darwinian naturalism thus enjoins Brandom to show how deontic attitudes can occur in "prelinguistic communities" that lack full noetic and agential powers (161).

The simplest model of deontic attribution that he provides is one in which performances are assessed as something the performer is authorized to do by the withholding of sanctions – where sanctioning behaviour, here, is "compounded out of reliable dispositions to respond differentially to linguistic and nonlinguistic stimuli" (156) not florid interpretative powers. For example, the deontic status of being *entitled* to pass through a door might be instituted by a ticketing system in which "the ticket-taker is the attributer of authority, the one who recognizes or acknowledges it and who by taking the ticket as authorizing, makes it authorizing, so instituting the entitlement" (161).

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[17] In DeLanda's account the second component corresponds to the Deleuzean Idea: the specification of singularities reflecting that same system's tendency to slip into distinctive portions of its state space.

This account can be complicated if we introduce deontic attitudes that institute responsibilities on the part of agents. For example, taking the Queen's shilling makes one liable to court martial if certain military duties are not undertaken (163).

According to Brandom these cases illustrate how social actors can partition "the space of possible performances into those that have been authorized and those that have not, by being *disposed* to respond differently in the two cases" (161-2: emphasis added).

Does this model show that Brandom's account can satisfy the minimal naturalist constraints that he recognises?

A number of commentators – including Daniel Dennett and Anandi Hattiangadi – have argued that that it succumbs to the same gerrymandering objections that Brandom cites against regularism (Dennett 2010; Hattiangadi 2003). If so, any performative regularities (actual or counterfactual) exhibited by actors and sanctioners in this simple model will be consistent with *multiple normative readings of either behaviours* – including interpretations that render the "deontic attitudes" mistaken.

The response of a ticket-taker towards ticket holders for some prelinguistic social event might be to open a door, physically permitting entry. However, this is consistent with multiple deontic statuses: including "entry permitted unconditionally", "entry permitted [mistakenly] according to a rule barring ticket holders and nonholders alike", "entry permitted, conditional upon possession of a ticket and having a birth place within a five mile radius" and so on. Thus if deontic attitudes have to be *compounded only from reliable dispositions to respond to stimuli*, each such response is consistent with the attribution of many, many mutually-exclusive statuses.

Just as there is nothing corresponding to *the regularity* exhibited by a given stretch of sign-using behaviour, there is nothing corresponding to the *deontic status* exhibited by any finite episode of what (at first sight) appears to be sanctioning behaviour. Otherwise put, *if regularism fails to supply the constitutive ground for meanings (as Brandom claims) it fails just as spectacularly to supply the constitutive ground for deontic status ascriptions*.

As Hattiangadi points out, beefing up the mental powers of instituters would avail Brandom little, or rather too much. If we furnish sanctioners with the power to make contentful judgements (about whether an agent is entitled to pass through the door, for example) we are already in the realm of the intentional (Hattiangadi 2003: 428). As he goes on to argue, this indeterminacy ramifies equally if we suppose the sanctioning behaviour extended to something resembling sign use. Suppose pre-linguistic Emma sanctions pre-linguistic John when the latter points to something saying "That's red" by kicking him.

> The question is what has John been punished for? Has Emma attributed the commitment to say 'that's not blue', or has she attributed the commitment to say 'that's not grue'? Which of these commitments has John violated? (426)

Again, we cannot attribute contentful attitudes regarding the regularity that John failed to follow here without attributing the florid intentional and agential powers whose emergence was s to be accounted for by their prelinguistic analogs. If regulism is false, reliable responses alone do not suffice to furnish contentful attitudes regarding correctness or incorrectness of others' performances (427). Thus – prior to the emergence of sapience – there can be no deontic statuses at all.

If follows that a naturalistically constrained normativism does not appear able to explain how social but nonlinguistic beings can institute norms, thus normative statuses, without a vitiating appeal to florid intentional powers. But this explanatory gap implies that Brandom cannot provide an explanatory framework in which the emergence of intentionality and sapience are non-magical.

The Interpretationist Defense

Can Brandom's account be repaired in a way that meets his minimal naturalist commitment?

Well, one defence that seems consistent with Brandom's avowals elsewhere is to follow Davidson and Dennett by claiming that the certain kinds of social behaviour are norm-governed if a) members of our speech community would properly interpret them as normative or b) if an ideally rational interpreter privy to all the relevant behavioural facts would read them as normative.

This response has something to recommend it. When interpreting alien social practices we are liable to appeal to our own background assumptions about what performances belong to the sortal "social practice". Moreover, appealing to notion of an ideal interpreter can be of value when trying to understand the theoretical and empirical constraints on attributions of semantic or normative content.

However, as Hattiangadi remarks, this response misses the point of the dispositional analysis of deontic attitudes. This was to explain how a non-sapient community could bootstrap itself into sapience by setting up a basic deontic scorekeeping system (Hattiangadi 2003: 429). Appealing to actual or ideal interpreters simply replicates the problem with Dennett's intentional stance approach since it tells us nothing about the conditions under which a being qualifies as a potential interpreter and thus little about the conditions for meaning, understanding or agency.

Similar problem afflicts Joseph Heath's (2001) proposal that Brandomian norms emerge from reciprocal expectations supported by sanctions. The idea is that a first person acts in a certain way while expecting a sanctioning response from a second person. The second

person, meanwhile, is disposed to respond to certain performances with sanctioning behaviour while the first person recognizes this. Where this minimal intersubjective couple converges towards a single pattern of behaviour over time, Heath argues, we are entitled to treat their activity as implying a norm.

Heath's proposal may be fine if we assume that certain intentional powers are already in place – e.g. that each individual both expects and sanctions the activity of the other. However, as Hattiangadi's appeal to the gerrymandering argument shows, this structure presupposes beings capable of intentional states such as expecting and sanctioning. This is presumably what distinguishes it from simpler cases of dynamical coupling where two physical systems converge towards a single pattern of behaviour. But if the normativist is serious about explaining the intentional in normative terms, they are not entitled to these assumptions.

Unbounded Posthumanism

If Brandom is right about the defects of Dennett-style or Davidson-style interpretationism, the tendency for his own account to regress to those positions is most telling. It suggests that interpretationist accounts cannot explain the semantic or the intentional without regressing to assumptions about ideal interpreters or background practices whose scope they are incapable of delimiting: "[In] principle interpretability is ill defined unless we have some conception of what is doing the interpreting" (Roden 2014: 128).

The point is *not* that interpretationism is false but that it is unilluminating. It is empirically unproblematic that we interpret other speakers, texts, cultural artifacts, etc. However, if in-principle interpretation according to the intentional stance fixes the content of intentional discourse, but the nature of such interpretation is ill defined, we have merely satisfied our curiosity about the nature of mindedness by appealing to local mind-reading techniques. We do not yet know what the invariants (if any) of intentional interpretation are.

Another way of putting this is that our practices of interpretation and deontic assessment are phenomenologically "dark" (See Roden 2013; 2014 82-104). The fact that we have them and have a little empirical knowledge of them leaves us ignorant both of their underlying nature and (by extension) of the space of interpretative and psychological possibility. Normativist ABP and its interpretationist variants thus provide no future-proof constraints on the space of possible minds or possible agents. Anthropologically Unbounded Posthumanism is not seriously challenged by the argument that mind and meaning are constituted by social practices. *AUP implies that we can infer no claims about the denizens of Posthuman Possibility Space a priori, by reflecting on the pragmatic transcendental conditions for semantic content*. We thus have no reason to suppose that posthuman agents would have to be subjects of discourse of members of communities.

For example, it is conceivable that there might be beings that are far more capable of altering their physical and functional structure than current humans. I call an agent "hyperplastic" if it can make arbitrarily fine changes to its structure without compromising its agency or its capacity for hyperplasticity. A modest anti-reductionist materialism of the kind embraced by Davidson and (arguably) Brandom implies that such agents would be uninterpretable using an intentional idiom because intentional discourse could have no utility for agents who must predict the effects of arbitrarily fine-grained self-interventions upon future activity. However, the stricture on auto-interpretation would equally apply to hetero-interpretation. Were such hyperplastics possible, they would not be interpretable for discursive creatures, which is not to say that they would be uninterpretable *tout court* (Roden 2015b; 2014, 101).[18]

As Scott Bakker and I have argued, this position is fatal for the ambitious rationalist projects of thinkers such as Ray Brassier and Reza Negarestani, as well as proponents of left accelerationist forms of Marxism like Alex Williams (Bakker 2014, 2015; Brassier 2011; Negarestani 2014a and 2014b; Williams 2013). These are *inhumanist* insofar as they reject the claim that a commitment to Enlightment entails a commitment to any ontological or theological conception of the human subject. Inhumanism proposes that all meaningful intelligence is artificial insofar as it involves the unbounded extension of discursive practices: humanity *just is* the revisionary power to redefine humanity within the discursive space of reasons (See Negarestani 2014b).

However, AUP implies that there is no warrant for the claim that any serious intelligence must be a "subject of discourse" able to measure its performances against public standards. So the space of possible intelligences and agents is notionally far larger *and stranger* than can be accommodated by Brassier and Negarestani's bounded inhumanism.

By extension the politics of posthumanism cannot be fixed by the structure of discursive agency either. We have no future-proof grasp of how strange posthumans (our wide-descendants) might be, so we lack any basis for adjudicating the moral status of such beings. We may buy into a parochial humanism which accords humans subjects a level of moral consideration that is greater than the nonhuman creatures we know about. But this does not entail that there are not morally considerable states of being in PPS that have little in common with the modes of being accessible to current humans. If posthuman politics is anthropologically unbounded, in this way, then any ethical assessment of the posthuman must follow on its historical emergence. If we want to do serious posthuman ethics, we need to make posthumans or become posthuman.

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[18] I've argued that Neil Cassidy the rogue neuroscientist of Scott Bakker's ultra-dark thriller *Neuropath* becomes a "beta test" hyperplastic from the moment that he turns his radical neurotechnology on himself (Bakker 2010; Roden 2015a).

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