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PLANES OF ENDURANCE

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Abstract.
In this article the notion of planes of endurance (or layered sedimentations) is developed. This is in response to attempts at mastery identified in modernist and postmodernist projects where the influence of temporality is erased either by attempting to establish unassailable universals or by introducing a radical plasticity. Focussing specifically on these themes in embodiment work, the writing of William Connolly, specifically his notions of layers and sedimentation, is utilised to provide a more nuanced reading of temporality as that which is both endurance and flux. These notions provide a matrix which allows a more complex understanding of the distinction drawn between the body and the environment and the biological and the socio-cultural.

INTRODUCTION.

In this article a conceptualisation is sought that manages to avoid the trappings of two particular binary distinctions: First, the distinction between the body and environment which invites individualistic understandings of the embodied subject which serve specific ideological purposes. For example, where the failure of the contemporary neo-liberal subject to fulfil an entrepreneurial agenda is regarded as the result of poor self motivation (Rose, 2008). Second, the line drawn between the biological and the social where critical approaches tend to privilege the latter in terms of influence thus relegating the former to a natural and reactionary passivity (Blackman, 2008). Two intellectual trajectories are discerned to ground this argument: The radically closed (concerned with universality, a chief goal of the project of modernity), and the radically open (associated with the postmodern which emphasises relativism, locality, contingency, and radical singularity) (Olivier, 2007). Both of these by varying means erase temporality from their considerations, whether describing things that always endure (laws) or arguing that nothing endures (radical malleability, plasticity). Both are fantasies of mastery, whether that of ultimate control or comprehensive rebellion (or may be seen as reductions to a singular plane of either eternal endurance or non-repetition). This temporal erasure may be addressed by developing the notion of planes of endurance. The possibilities that

emerge from such a conceptualisation are explored in this article as well as the ways that it avoids the problems inherent in the aforementioned binaries.

ERASURES OF TEMPORALITY.

In his book, **Derrida and the political**, Beardsworth (1996:xiii) makes the point that in the metaphysical tradition we find "a specific *organisation* of time", an enduring conceptual production that emerges in practice as a disavowal of temporality. Such a renunciation finds particular expression in the extremes of a variety of oppositions, those of the timeless and singular (that is, the instant immediately forever lost), the eternal and the transitory, the infinite and the finite, and the transcendental and the empirically contingent. Beardsworth asks what would happen should we take time and difference seriously, that is, what would result should we reintroduce a "radical finitude" (1996:xiii)? It is this question which I wish to consider here with specific reference to neuroscience and body studies. I will initially unpack the aforementioned erasure of time which then lays the ground for a more direct discussion of neuroscience and embodiment work.

It is possible to consider the erasure of temporality as two trajectories or, in more religious discourse, temptations. The search for the atemporal, the infinite, the enduring, the always already there, the eternal, the transcendental law, the universal, or the material forever, is the search for closure or completion. It is no major leap to recognise in this the ambition of the project of modernity, which seeks, with the ambition of the master, to render all written, all recorded, captured in the book of law, knowledge thus encircled and brought under control. Here we may want to insert various images, such as that of the obsessive clerk wishing to tick the last box in order to bring that niggling anxiety to rest or, in more Freudian terms, the search for omniscience that is actually an expression of the death drive where all being known means that the pathway to final inertia has been achieved. In this sense time is erased since in having found that which endures, the ravages of temporality are subverted as this foundation of certainty is established. Time may do to us what it wishes in its plodding indifference, but the face of God has been revealed and looks on forever transcendent.

One response to the above reading is that there is a modernist project which takes time seriously, that is, Marxism through its notion of historical materialism where
"man" and nature are in a dynamic, active and mutually transformative relationship *across time* (Slaughter, 1985). However, here the unfolding of time has been circumscribed within the grand narrative of evolving systems of exploitation and oppression. In other words, temporality's trajectory has been plotted leading inevitably to the future communist society. Marxism therefore relies on the possibility of an objective history which requires the notion of historical laws and the structure of historical stages (Papadopoulos, 2003). As Derrida (cited in Staten, 1984:170) argues, the notion of horizon, "the anticipated unity of the future in every [current] incompletion", is a coinciding of the *a priori* and the teleological in that both function as presuppositions. They are both impositions foisted (whether through logic or otherwise) upon the world to achieve a system, a framework that imbues its user with a sense of control. In this classically modernist manner temporality as the unpredictable, the expression of flux, is suspended.

Alternatively, the opposite ambition, the need to acknowledge the relative, the local, the contingent, the finite, the different, the fleeting and the radically singular, seeks to subvert this obsessive search for mastery, often equated with patriarchal and capitalist agendas. Here we may recognise the postmodern agenda, from its left-wing manifestations to the bourgeois celebration of the potential for recurrent reinvention. But this too seems to involve an erasure of time, since in seeking to identify an uncontrollable and radical malleability or plasticity that undoes the ambitions of modernity what effect does time really have? In erasing endurance do we not then also erase time?

It seems to me that both of the above engagements with time involve fantasies of mastery, whether in the form of ultimate control (modernity) or comprehensive rebellion (postmodernity). Although the latter celebrates difference and brings a politics of such acknowledgement to bear on monolithic and homogenising notions of knowledge, both disavow temporality. Whether through the identification of transcendent laws or rupturing contingencies both temptations loose time as that which is *both* endurance *and* flux.

BODY STANCES.

It is possible to draw some parallels between the above distinction and tendencies in the investigation of the body found in both neuroscience and social science (or, more specifically with the latter, critical psychology). The dominant trend in contemporary neuroscience is captured in Kandel, Schwartz and Jessell's (2000) celebrated **Principles of Neural science**. Here they indicate that the "task of neural science is to explain behaviour in terms of the activities of the brain" (2000:5). It is through the development of new technologies, techniques and analyses that complex behaviours can be mapped onto the brain. In this manner direct relationships are established between cognition, emotion, deviation and neural surfaces (Rose, 2008). Higher mental processes (for example, memory, decision making, and judgement) can be described, objectively measured, and "dissected into elementary components and operations" (Kandel et al, 2000:16). Aside from the neural and elemental reductionism that is apparent in these statements, the emphasis is also placed on the process of explanation and description (enabled through the ever progressing development of technology). The search here is for mastery, a comprehensive circumscription of the objects of investigation, that is, the brain and by inference the subject.

Within feminist and critical writing there has been a response to the modernist body project described above. What becomes hidden in this descriptive-reductionist process is that there is no monolithic or single body but a pliable and plastic body, one whose capabilities show remarkable historical and social variation (Grosz, 1994). Here then the body is reconceived as a potential multiplicity, always insisting on alterity, capable of a plethora of possible becomings and ruptures that defy the containment and binary logics of any culture, patriarchal or otherwise. What potentially emerges in this recognition of difference, especially when conflated with a dogmatic rejection of any consideration of the biological body (Wilson, 1998), is a postmodernist fantasy of an infinitely variable body.

In these two extremes of circumscription and plasticity we may recognise the same previously mentioned temptations that attempt to erase temporality. Within neuroscience the ambition is to achieve a description that determines the principles (or endurances) that

transcend the difference or fickleness of time, whilst in the postmodernist celebration of some critical approaches a fantasy of plasticity is articulated that exceeds time as endurance or limitation.

It is important to note here a resonance that extends beyond the critical agenda. Here I am referring to Rose's (2007) comment that inherent in contemporary technomedicine is a fantasy where human life is regarded as something "infinitely malleable" (2007:1), where the biological itself is no longer considered to be something that imposes limits on human ambition. It is here where modernity and post-modernity meet as hypermodernity, that is, the belief that progressive technology can surmount any limitation thus erasing nature as that which humanity has to accept as given. This promises endless routes for the opening up and manipulation of the corporeal, and hence the realisation of the postmodern fantasy via yet-to-come modernist omnipotence. Popular here are the promises of profound longevity for (wealthy) individuals via emerging biotechnologies (Turner, 2006).

THE BODY / ENVIRONMENT AND BODY / SOCIO-CULTURAL DISTINCTIONS.

I will return to the above notions shortly but first need to refer here to two distinctions that may also be identified in much embodiment work or, more broadly, in general discourse about the body. In the first there is a common line drawn between the body and that which surrounds it, often referred to as the environment. The concern is then, for many, especially medical, disciplines to explain what happens within the confines of the body boundary. This often has the effect, through the pursuit of internal explanations, of reducing problems and abilities to the body, resulting in a form of anthropocentrism or corporeal individualism. In contemporary medical science, this strategy reaches magnified proportions through an increasing concern with micro processes, what Rose (2007:5) refers to as the "molecularization" of life.

In another paper (van Ommen, 2009), I have argued that in troubling the distinction between the body and environment it is not necessary to go to the other extreme and to claim that there is *no* distinction between our physicality and the rest of materiality. Rather, this relationship is profoundly intimate and the line between the body and the environment is always on the move. Accordingly, this boundary should be imagined as a smudge which results from our corporeality moving across time and (social and physical) space. In this article I would again address this distinction but now, as will become clear, from a slightly different angle.

The second distinction is that between the corporeal and the social (or socio-cultural), where the tendency in the medical sciences is to minimise the complexity of the social's relationship to the body usually through references to broad and obscure terms such as "stress" or "life style problems". In terms of the history of Western philosophy and the social sciences in general, there has been an inclination to reduce the body to some form of passivity or, if given any agency, some nefarious other, sculpted or disciplined through social processes. Of interest is that in demonstrating bodily effects on social process (as is found in contemporary neuroscience's fascination with executive function disorders associated with traumatic, usually frontal lobe, brain injuries), neuroscience is not accrediting the body with any agency. Instead there is the pursuit of comprehensive principles that evoke a determinist (causal) image of the body. Which ever way this is

considered what remains is a pretty clear and untroubled distinction between the social and the corporeal.

The question that then arises in the context of the previous discussion is what happens to these distinctions if we introduce temporality conceived as planes of endurance?

FLUX AND ENDURANCE.

Rose (2007) indicates that in making sense of "contemporary vital politics" it is no longer adequate to "seek to destabilise a present that has forgotten its contingency", that to unsettle "our present does not seem to be such a radical move" (2007:4-5). Given this, what is then required is that "we need to emphasise continuities as much as change" (2007:5). Passing reference to the work of Hardt and Negri (2000) is relevant here in that they also point out how contemporary capitalism has taken up the postmodern themes of distributed networks, multiplicities and variability in developing its exploitative practices. Reference to, or the identification of, such themes thus no longer offer the radical effects sought in critical analyses. Rose thus emphasises that the project of critical psychology should not only engage with temporality as that which is in flux, or, rather, that which can be put into flux, but also that which endures. I will explore the relation between these two dimensions here by considering a conceptualisation offered by William Connolly (2002).

Connolly (2002), in his text **Neuropolitics: Thinking, culture, speed**, attempts to conceive of a form of thinking that is not reduced to cognition. "Cognition" in this context suggests something clear and pure. It is an evocation of the Cartesian cogito where thought is fully and simply present, unsullied by emotion and the body (that is, materiality). Rather what Connolly proposes is thought as opaque, entangled, layered, emotive, and embodied. He is here trying to establish a notion that does not resort to the "thick universals" of modern science or "retreats towards a disembodied conception of cultural life" (2002:3).

Connolly therefore attempts to include the body and culture in thinking, conceiving of what he refers to as the body/brain/culture network, an articulation of "corporeo-cultural life" (2002:18). Culture for Connolly is comprised of a myriad of ideational, corporeal and environmental aspects, including ideas, beliefs, concepts, perceptions, practices, habits, dispositions, resistances, and institutions. Cultural life is not marked by coherence but rather by ambivalence, conflict and movement, consequences of the "layered materialisations of culture" (2002:18). This does not however imply disconnection or fragmentation since: "If thinking helps to compose culture, the objective dimension of culture helps to compose thinking, [this makes] the relays and feedback loops that connect bodies, brains, and culture exceedingly dense" (2002:19).

The notion of such a network allows Connolly to explore "the layered character of thinking" (2002:2). The brain enters here since cultural learning is regarded as *inscribed* in a *layered* manner through various nerve structures (for example, the cortex and amygdala), which vary in their speed and complexity. Hence we have "the inwardization [rather than internalisation] of culture, replete with resistances and ambivalences… installed at several layers of being, with each level both interacting with the others and marked by different speeds, capacities and degrees of linguistic sophistication" (2002:7). Important here is that

Connolly does not merely innervate culture but extends this layering to beyond the brain/body to the environment, referring to layered materialisations of culture such as institutions which are replete with structures, procedures, agents, and so forth.

The notion of “layer” suggests multiplicity and difference. Each layered structure introduces a different form of endurance, a different type of sedimentation and thus temporality, evoking an image of tectonic plates grinding against each other, each moving at a different pace, each varying in material resilience and effect. For instance, using an example from the neurosciences, the neurologist, Antonio Damasio (1994), describes the typical distinction drawn between the cortex and the subcortical structures of the brain. A number of binary oppositions are utilised in the articulation of this general structure of the brain: The subcortical is portrayed as “evolutionary old” (1994:109), “subterranean” (1994:110), “innately and precisely set” (1994:110), and enacting a “fundamental set of preferences of the organism that consider survival paramount” (1994:111). In contrast, the cortical is “evolutionary modern” (1994:110), “a comprehensive mantle” covering all surfaces (1994:27), comprised of “acquired” (1994:111) and “plastic” circuits (1994:110) which are “experience driven” (1994:111), secondary to and dependent on the subcortical circuits which complement, constrain, and “interfere with” (1994:111) the “shaping of the more modern and plastic” (1994:111) circuits.

The “higher” cortical functions are therefore subject to the “lower” subcortical functions. In this way Damasio historicises the organism since “[w]holesale modifiability would have created individuals incapable of recognising one another and lacking a sense of their own biography” (1994:112). Where the higher allows adaptation to the contingencies of the environment, the lower provides “nuts-and-bolts biological regulation” allowing ”individual and evolutionary survival” (1994:110). Thus the brain “needs a balance between the circuits whose firing allegiances may change like quicksilver, and circuits that are resistant though not necessarily impervious to change” (1994:113), but which ultimately evaluate and shape those above according to a “fundamental set of preferences … that consider survival paramount” (1994:111).

Damasio’s articulation of and gross distinction between the cortical/sub-cortical distinction demonstrates Connolly’s point that brain structures can be distinguished in terms of modifiability, capacity and speed. In this way varying in their degree of sedimentation they create a layered effect providing thought with a nuanced texture. One can add to this neurological example the extra-neurological influences of other socio-cultural sedimentations such as discourses, institutions, and the architectural organization of the physical environment, which differ in their centrality or dominance in the structuring of everyday life.

It is possible to conceive of Connolly’s “culture” as that which finds different endurances in different layers of materiality. This rids us of a socio-cultural / material distinction in that culture is not the “other” of materiality, somehow still on the same level given that it can be distinguished in such a binary opposite, but rather that which emerges because of and through materiality. We cannot therefore think of culture as separate from materiality, or vice versa. All materiality is culturally inflected whether somatic (biological, corporeal) or “environmental”. Everywhere culture is sedimented, each sedimentation varying in its

capacity to endure, whether this is, for example, through neurological structures, through other bodily processes, through institutions, through discourses, through other practices, or through architectural structures.

No pattern is outside of culture, of history, or of materiality. Every process, whether neural, corporeal, cognitive, interpersonal, collective or organisational, bears the effects of time in the form of cultural practices and other environmental constraints in their material instantiation. They are multiple and entwined temporal unfoldings emerging through time, and are hence a product, an instantiation (repetition) and a variation (even if infinitesimally so) of what preceded them. As such they bear the inscription of the past but are not absolutely determined by what has been, thus opening up the future to the unexpected, undermining the ambitions of modernism.

It should be noted that the danger of Connolly speaking of culture as “inscribed” in a layered manner through various nerve structures is that it seems to suggest that such neural structures are somehow themselves outside of culture. Here we run the risk of reinserting the distinction where a passive biology (now endowed with degrees of complexity and speed, that is, variations in sedimentary nature) awaits the writing of culture. In other words the traditional social/biological distinction seems to be re-introduced here. What needs to be recognised is that since culture is possible due to materiality, Connolly’s brain structures are *themselves* sedimentations of cultural practice and pattern, now enduring beyond the individual or present society, shifting at paces beyond immediate perception, entrenching processes that enable being. To return to the earlier example; Damasio’s subcortical structures may lack the environmental sensitivity and modifiability of the cortex but this does not imply that they themselves are pre-environmental, a-temporal or un-modifiable. They are themselves sedimentations emerging through time, standing in relationship to other sedimented structures and processes, contrasted by differences in capacity, speed, and effect.

As Aristotle argued, it is impossible to conceive of materiality without form in that matter without form and form without matter has no being (Bennett & Hacker, 2003). Materiality endures and in its endurance it expresses forms. Materiality entrenches patterns that vary in their durability, some a momentary repetition, an organismic moment, and others vast cosmic cycles unfolding across aeons. A strict binary opposition between flux and endurance, the singular and the universal, may, through notions such as sedimentation, be reconceived as more than flux as non-endurance or endurance as the absence of flux. Rather flux may be conceived as *variable endurances* and endurance as a myriad of structures and processes following *differing lines of temporality* or speeds, that is, fluxes of varying duration. In other words, through the temporality of the flux endurance emerges, whilst through the variation of that which has endured flux emerges. The relationship between endurance and flux is thus deconstructed as the two notions are shown to be intimately interwoven, that is, they mutually constitute one another. This then calls into question the orthodoxy of modernist science and the romanticism of postmodernism described earlier. The modernist attempt to impose endurance brings to the foreground variation and exception, whilst valorisations of flux run into examples of cross-cultural and historical consistencies. The negotiation of this aporia is by reading the body and all forms of materiality through the inescapable lens of temporality; the “radical finitude”

(Beardsworth, 1996:xiii). I then conclude this article by considering the notion of planes of endurance in more detail.

LAYERED SEDIMENTATIONS.

To capture Connolly's conceptualisation of differing sedimentations standing in relation to one another, I suggest the term *planes of endurance*. This notion of layered sedimentations also acts to disrupt simplistic body / environment and socio-cultural / biological distinctions.

The concepts of the "biological" or "body" may be read as institutionalised distinctions which conflate a heterogeneous conglomeration of structures and processes. It may be argued that they set up distinctions that artificially and violently cut through various sedimented processes that do not respect the traditional distinction between the body and environment and the biological and social. That is, it could be argued that the imposition of these binary distinctions enact a violent economy that obscures the profoundly intimate relationship between the body and its surroundings and the biological and the social. It could further be argued that in so doing they instantiate the autonomous self, a cogito divorced from the context which constitutes it, a move which allows the justification of a host of social injustices by erasing the contribution of social structures and processes, as well as the relations of power maintained by such architectures (Prilleltensky & Fox, 1997).

In another article (van Ommen, 2009) I illustrate the intimacy referred to above by considering the perception of colour. Here I use the arguments of Lakoff and Johnson (1999) who show that colour concepts arise through the interaction between the body, the nervous system, the reflective properties of objects, and electromagnetic radiation. Colour is thus not simply objective or subjective but emerges through an array of physical processes and structures that are not simply within or outside of the body. The term "green" does not simply reflect something in the world in that it cannot be unpacked through reference to that which lies outside of the body. To be fully explicated reference must be made to structures that both lie within the body, such as neural circuits, and lie beyond in the environment. Colour is a function of biology *and* the world. To impose a strict demarcation in this instance is obfuscatory, distortive and ideological.

An alternative conceptualisation to such traditional binary impositions is suggested. Here, rather than asking which sedimentations (structures and processes) constitute the body, it seems useful to follow a different line of enquiry, one that troubles or, more modestly, chooses to pay less attention to the lines between body and other and between the biological and the social. We may ask how sedimentations (irrespective of whether we can attribute them to the "body" or the "environment") interact and constitute the socio-cultural. Patterns are then traced as they emerge, endure and change across time and materiality, the question of whether we are dealing here with corporeality or another physicality, or whether we are on biological or social turf, being of secondary importance and consideration. Within the scope of such an analysis the body is treated in the first instance as not distinct from the environment or social but as a form of materiality which is one set of sedimented sedimenting processes that allows for the emergence of culture and society. "Sedimented" in that its various processes emerge as a myriad of endurances and

"sedimenting" in that such endurances are undermined by the flux which constitute new endurances.

The notion of planes of endurance exceeds both circumscribed notions of the biological and the body associated with modernism's search for universality as well as the play of plasticity celebrated in post-modernism. It makes apparent both the flux and endurance of temporality. It is through taking time seriously and by undermining (not erasing) traditional boundaries that the body and biology emerge as open and constrained. It is in understanding ourselves as such intimately entwined and temporal beings that we are able to counter the closure of modernist mastery, the reductionism of neo-liberal individualism, and the radical plasticity of postmodern idealism.

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REFERENCES.

Beardsworth, R (1996) **Derrida and the political**. London: Routledge.

Bennett, M R & Hacker, P M S (2003) **Philosophical foundations of neuroscience**. Oxford: Blackwell.

Blackman, L (2008) **The body: The key concepts**. Oxford: Berg.

Connolly, W E (2002) **Neuropolitics: Thinking, culture, speed**. Minneapolis: University of Minnesota Press.

Damasio, A (1994) **Descartes' error: Emotion, reason and the human brain**. New York: Quill.

Grosz, E (1994) Experimental desire: Rethinking queer subjectivity, in Copjec, J (ed) (1994) **Supposing the subject**. London: Verso.

Hardt, M & Negri, A (2000) **Empire**. London: Harvard University Press.

Kandel, E R, Schwartz, J H & Jessell, T M (2000) **Principles of neural science** (4th ed). New York: McGraw-Hill.

Lakoff, G & Johnson, M (1999) **Philosophy in the flesh: The embodied mind and its challenge to Western thought**. New York: Basic Books.

Olivier, B (2007) Postmodernity, globalisation, communication and identity. **Communicare: Journal for Communication Sciences in Southern Africa, 26(2)**, 36-55.

Papadopoulos, D (2003) The ordinary superstition of subjectivity: Liberalism and technostructural violence. **Theory and Psychology, 13(1)**, 73-93.

Prilleltensky, I & Fox, D (1997) Introducing critical psychology: Values, assumptions, and the status quo, in Fox, D & Prilleltensky, I (eds) (1997), **Critical psychology: An Introduction** (pp. 3-21). London: Sage.

Rose, N (2007) **The politics of life itself: Biomedicine, power, and subjectivity in the twenty-first century**. New Jersey: Princeton University Press.

Rose, N (2008) Psychology as a social science. **Subjectivity, 25**, 446-462.

Slaughter, C (1985) **Marx and Marxism: An introduction**. New York: Longman.

Staten, H (1984) **Wittgenstein and Derrida**. Oxford: Basil Blackwell.

Turner, B (2006) Body. **Theory, Culture and Society, 23(2-3)**, 223-229.

van Ommen, C (2009) Body / Other: The body as “smudge”?, in Teo, T, Stenner, P, Rutherford, A, Park, E & Baerveldt, C (eds) (2009) **Varieties of theoretical psychology: International philosophical and practical concerns**. Ontario: Captus University Publications.

Wilson, E (1998) **Neural geographies: Feminism and the microstructure of cognition**. New York: Routledge.