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## Reontologising race: the machinic geography of phenotype

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**Abstract.** In contradistinction to the treatment of race as a problem of epistemology—how is phenotype represented in racial discourse—the author seeks to defend a materialist ontology of race. The creative materiality of race is asserted following the ‘material turn’ in feminism, anthropology, complexity theory, and Deleuze. Race is shown to be an embodied and material event, a ‘machine assemblage’ with a different spatiality than the self/other scheme of Hegel. Taking issue with the calls for the transcendence of race amongst cultural studies scholars such as Paul Gilroy, the author ends the paper by suggesting that the political battle against racial subordination includes a serious engagement with its biological dimensions. Race should not be eliminated, but its energies harnessed through a cosmopolitan ethics which is sensitive to its heterogeneous and dynamic nature.

### Introduction

In contemporary theory, race tends to be conceived as a problem of language. We read that race is an ideology, a narrative, a discourse. Race then refers to the cultural *representation* of people, not to people themselves. It could be said that race tends to be approached as an *epistemological* problem: how is race known? Why was it invented? Some argue that we should simply stop thinking in terms of race. In this paper I would like to argue this might not be a good idea. Race will be approached *ontologically*, as a real process demanding particular concepts and commitments. Not so much representations, but bodies and physical events will be foregrounded. For instance, the phenotype of humans can be shown to play an active part in the event called race. When understood as immanent process, it becomes clear that, though contingent, race cannot be transcended, only understood and rearranged.

Whether there is any physical basis for the concept of race has of course been hotly contested for many decades. In cultural studies, postcolonial theory, cultural anthropology, and most human geography, it is common to treat race as a discursive construct. Many in American critical race theory, such as Howard Winant and Naomi Zack, opt instead for a more realist approach, granting that there *are* phenotypical differences but that their social force depends on culture, economics, and the law. In this paper I chiefly follow poststructuralist philosophy not American left-wing pragmatism, but I do so in order to take issue with the epistemological bias in much of the humanities inspired by poststructuralism. Despite coming from a different intellectual trajectory, therefore, I would locate this intervention closer to the realist approach.

The paper presents a number of entries into the argument. This theoretical eclecticism demonstrates that the materiality of race can be conceptualised from a number of perspectives, making the reconceptualisation very much due. First, Frantz Fanon’s phenomenology of race is revisited, and I argue against Judith Butler’s linguistic take on embodiment. Then the deontologisation of race in authors such as Paul Gilroy is scrutinised. Not asking properly what race *is*, Gilroy believes too easily in the possibility of its transcendence. In the fourth section, the refusal to engage with phenotype is with Bruno Latour shown to follow from a wider anxiety in the social sciences about matter.

Nevertheless, in many places, as in the feminism of Elizabeth Grosz, materiality is again treated positively. As discussed in the fifth section, the openness of the human organism is also affirmed in anthropology—as well as in biology, from Darwin onwards. In particular, biology influenced by complexity theory and its philosophical underpinning by Gilles Deleuze and Michel Serres can help in imagining the biocultural emergence and evolution of race relations.

The last two sections follow Deleuze and Guattari and use their term *machine assemblage* to capture race's reality of unmediated connections. Far from being an arbitrary classification system imposed upon bodies, race is a nonnecessary and irreducible effect of the ways those bodies themselves interact with each other and their physical environment. The spatiality of race is not one of grids or self/other dialectics, but one of *viscosity*, bodies gradually becoming sticky and clustering into aggregates. Battling against racism is then not a question of denying race, but of cultivating its energies against the stickiness of racial segregation. Crucial in this process is that social scientists critically engage with race's biological aspect. For if they insist that race is but a 'social construction', they might leave the discursive arena open for (closet) racists to reinstate biological justifications for white privilege.

### Phenotypical encounter

"'Look, a Negro!' It was an external stimulus that flicked over me as I passed by. I made a tight smile.

'Look, a Negro!' It was true. It amused me.

'Look, a Negro!' The circle was drawing a bit tighter. I made no secret of my amusement.

'Mama, see the Negro! I'm frightened!' Frightened! Frightened! Now they were beginning to be afraid of me. I made up my mind to laugh myself to tears, but laughter had become impossible.

I could no longer laugh, because I already knew that there were legends, and above all *historicity*, which I had learned about from Jaspers. Then, assailed at various points, the corporeal schema crumbled, its place taken by a racial epidermal schema. ...

I was responsible at the same time for my body, for my race, for my ancestors. I subjected myself to an objective examination, I discovered my blackness, my ethnic characteristics; and I was battered down by tom-toms, cannibalism, intellectual deficiency, fetishism, racial defects, slave-ships, and above else, above all: 'Sho' good eatin'."

Fanon ([1952] 1986, pages 111–112)

Fanon's 'train passage' is widely cited as a particularly painful and recognisable example of what it 'means' to be black in a white society—to discover one's blackness through white eyes, as negatively, as what is *not* proper, clean, trustworthy. Reading Maurice Merleau-Ponty through Georg Hegel, Fanon's work argues that under colonialism a black body is inevitably imbricated in a binary classification regime, defined by the White Man's stereotypes and exploitation. Blackness exists only by virtue of what it is not; to reclaim humanity and a rightful place in universal history, blacks need to break out of the binary classification imposed by whites and to assert the arbitrary nature of racial division. Thinking about difference as self versus other is a legacy of Hegelian dialectics, which inspires practically all commentary on Fanon and

postcolonial theory, as can be seen in a recent collection, *Philosophies of Race and Ethnicity* (Osborne and Sandford, 2002).

But let us ask *what happens* in the train passage. There is a differentiation of human bodies. Within a racialised visual regime, it is the concentration of melanin in Fanon's skin that attracts the attention to the white boy—not his suitcase, or coat, or smell, or even posture. “The evidence was there, unalterable. My blackness was there, dark and unarguable. And it tormented me, pursued me, disturbed me, angered me” (Fanon, [1952] 1986, page 117). A “racial epidermal schema” can suddenly be activated wherever Fanon moves in French society [or elsewhere (compare Pile, 2000)]. His phenotype is capable of conjuring up a whole series of fears, desires, clichés, and antagonisms; it can bar him from places and practices, or raise suspicion about his medical skills, or it can be taken as evidence of the superiority of French imperialism; such is the variegated force of phenotype. Not that Fanon's phenotype *mechanically* invokes histories and geographies of race, but within a racialised regime of vision, phenotype does always matter somehow—to experience, imagination, and belonging, to interaction and the allocation of bodies. Linda Martin Alcoff argues:

“Phenomenological descriptions of racial identity can reveal a differentiation or distribution of felt connectedness to others. Kerouac's sadness is prompted by his lack of felt connection, a connection he may have anticipated when initiating his walk through the black and Mexican neighbourhoods, but one that does not present itself. However, felt connection is a complex issue, undetermined solely by phenotype. The felt connectedness to visibly similar others may produce either flight or empathic identification or other possible dispositions” (1999, page 21).

The embodiment of race therefore encompasses certain ethical stances and political choices. It informs what one can do, what one should do, in certain spaces and situations. Though I will later question whether the Hegelian framework of Fanon can account for the gradual and multidimensional differences that emerge in social space, his phenomenological insistence on situated embodiment can certainly support a materialist conception of race.

### **Bodies and language**

The relationality between blackness and whiteness in Fanon will to many readers be reminiscent of the relationalities of language. Signifiers, in the legacy of Ferdinand de Saussure, can only mean by way of a *formal* system or arbitrary differences. After the ‘linguistic turn’ associated with the poststructuralists Roland Barthes, Jacques Derrida, Julia Kristeva, Jacques Lacan, and the ‘archaeological’ Foucault, society has been widely considered to operate in the same way that Saussurian signs do. In a social system of differences, dominance is achieved through the fearful discursive exclusion of ‘the Other’. But since identity is never given, the future of the system is inherently political. Politics is then about the formation of heterogeneous coalitions amongst the disenfranchised to wrestle signifiers from the dominant. This conception of the social as structured through negativity and floating signifiers is very influential, more or less informing important theorists of the left such as Butler, Gilroy, Homi Bhabha, Stuart Hall, Ernesto Laclau, Chantal Mouffe, Edward Said, Gayatri Spivak, and Slavoj Žižek.

These theorists might retort to the phenomenologist of race that it isn't phenotype at all, but the white boy's reiterated interjection “Look!” that determines the differentiation of bodies. Fanon is ‘interpellated’ as black subject by the use of racist *language*, while the boy reproduces himself as white. They both have little choice but to be produced by discourse. But what does ‘produced’ mean? Surely not that there was no Frantz Fanon prior to this boy's interjection. It means, for these theorists, that the interjection makes phenotype matter, that without language there would not

be any difference. Language (or culture at large) is a screen which *mediates* between consciousness and the obscure matter of the body. Whenever language (the language of science, for example) claims to grasp materiality ‘itself’, it in fact hits against the wall of its own mediations. In this mediation model of language, materiality is forever unknown and there is no intermingling possible between the two realms.

In *Bodies That Matter*, Butler writes:

“The body posited as prior to the sign, is always *posited* or *signified* as *prior*. This signification produces as an *effect* of its own procedure the very body that it nevertheless and simultaneously claims to discover as that which *precedes* its own action” (1993, page 30).

Butler’s well-known argument is that there is no anatomy or phenotype unless invoked by signification, by discourses of gender and race. It is beyond dispute that no body is untouched by signification. The question is, rather, how signification comes to have any effect at all, if not through the materiality of signs, bodies, and spaces. The statement “*Tiens, un nègre*” requires a larynx, the proximity of a Negro, a comprehension of French, and being within earshot to hear it. For sure, Butler repeatedly states that there is a ‘materiality’ to signs, but she refuses to extend this statement to bodies or things. The physical body of skin, blood, and bones remains other, a ‘constitutive outside’ that is *expelled* by discourse (“*signified* as *prior*”), but has no rhythms and volume of its own. Thus, a Butlerian critique can rightly question the ‘naturalness’ of a bedrock of phenotype posited by, and justifying, racial discourse (Butler, 1997). But such critique halts abruptly at the deep gorge between racist discourse (which it attacks) and phenotypical matter (about which it will not say anything). Is not phenotype itself shaped by cultural practice? Does phenotype ever resist its ‘performance’? By not allowing anything from across the gorge to enter her critique, Butler ultimately remains complicit with what she attacks: the metaphysical positing of an inert exteriority to language. Can it not be possible to think and write about physical bodies *without* positing them as primary, pure, fixed, bounded, and self-transparent?

Bodies need to be appreciated as productive in their own right, just like words or money or architecture. Fanon’s phenotype is not at all ‘performed’ or ‘constituted’ by the boy’s exclamation. Phenotype is constituted instead by genetic endowments, environmental conditions, exercise, hormones, diet, disease, ageing, etc. What language does to phenotype—phenotype *itself*—is *charge* it, circumscribe what it is capable of doing in particular spaces. There was certainly real phenotypical difference before the exclamation, but it had no effect on the situation (yet). The exclamation brings out a latency, a latency Fanon knew was there, but had perhaps forgotten, looking absent-mindedly for a seat. After the exclamation, Fanon’s options are limited. Now, his phenotype demands active management. Now, his phenotype is alive, chaining him to the histories and geographies of race and colonialism.

“I am overdetermined from without. I am the slave not of the ‘idea’ that others have of me but of my own appearance” (Fanon, [1952] 1986, page 116). There is no mediation, only a pair of eyes, an exclamation, and a little index finger connecting to a body with darker skin, in a train of paler bodies. There are the memories of exploration and slavery, carried around by bodies which were brought up with them and subsequently charge situations like this. There is moreover the wry smile, panic, bitterness, shame, and disgust. Finally, there are seats, compartments, tickets, windows, the winter temperature outside, and the snow-covered *paysage* gliding by. Race is a whole event, much more than just a statement, important though that statement may be in the emergence of the event.

The mediation model is strongly hegemonic in current theorising of race. And with materiality, experience too disappeared from analysis. While Fanon retained

Merleau-Ponty's and Jean-Paul Sartre's insistence on embodiment, most authors in postcolonial theory succumbed (like Butler) to a particularly obdurate antiphenomenological interpretation of Foucault, which posits discourse as the be-all and end-all of what there is to power relations. In cultural studies, postcolonial studies, and human geography, not phenotypical encounters in public spaces, but *representations* of race in film, literature, advertising, and the press have been extensively documented (for example, Anderson, 1991; Bonnett, 1993; hooks, 1992; Low, 1996; Skelton, 2000). There are exceptions, of course, in which race is treated as a spatial and embodied practice (Knowles, 2003; Nayak, 2003; Sundstrom, 2003). In US sociology (for example, Roedinger, 1991; Winant, 2004) and social geography (for example, Smith, 1989), race also tends to be approached more materialistically. On the whole, however, the precise nature of 'construction' in the credo 'race is a social construction' is not sufficiently considered. Does race exist only 'in' discourse? Faced with the repeated assertion that race is a political fiction, some folks might get exasperated: but there *are* physical differences, aren't there? Studying representations alone conveniently sidesteps a crucial question. What *is* race?

### The deontologisation of race

Of the gamut of authors who refrain from asking the question "What is race?", Gilroy is one of the most erudite and authoritative. It is with good reason that Gilroy refuses an ontology of race. Especially in *Against Race*, he wants to "de-ontologize 'race'" (Gilroy, 2000, page 43), to *transcend* the "race-thinking" both of white supremacists and of many black activists, and to construct a consciously utopian, "postracial humanism". "The idea that action against racial hierarchies can proceed more effectively when it has been purged of any lingering respect for the idea of 'race' is one of the most persuasive cards in this political and ethical suit" (page 13). Similarly, Vron Ware and Les Back argue in their *Out of Whiteness*:

"If the twenty-first century is to transcend the color line inherited from earlier social, economic, political, and cultural formations, a progressive, forward-looking politics of social justice should embrace the will to abandon 'race' as any kind of useful category, alternative or otherwise" (2002, page 27).

Gilroy, and Ware and Back, like most on the (British) left, consistently place the word *race* in inverted commas. The inverted commas signal an awareness of the word's tainted history and scepticism about its referent, while simultaneously conceding that no other word would do the job (*ethnicity, culture, nation, group, population, lineage, kind, breed, stock, ...*). What is relevant here is not just the irony that the loud calls for abandoning the term of race in fact perpetuate it. What needs to be examined is precisely the uneasiness about the term.

"We are constantly informed that to share an identity is to be bonded on the most fundamental levels: national, 'racial', ethnic, regional, and local. Identity is always bounded and particular. It marks out the divisions and subsets in our social lives and helps to define the boundaries between our uneven, local attempts to save the world. Nobody ever speaks of a human identity" (Gilroy, 2000, page 98).

Gilroy is uneasy about race because it divides humans. In today's academic writing choosing *not* to use inverted commas for *race* risks an accusation of essentialism. But why are there no inverted commas in Gilroy's work around nation, ethnicity, region and locality, or sex, not to mention humanity itself? Surely there should be, as these have been subjected to cogent critiques as well. There is something about the materiality of race that invites the extra scepticism, the extra typographical distancing between the word and the bodies it wants to represent. Paradoxically enough, though, throughout this oeuvre Gilroy assumes the reader knows what bodies he is referring to when he uses *black* and *white*. Why should these invoke stable referents?

The slipperiness of the term *race* is enough for Gilroy to hope for a fundamental egalitarianism, a “planetary humanism”. And Gilroy claims that race-thinking is already fading away in an age of molecular biology.

“Genomics may send out the signal to reify ‘race’ as code and information, but there is a sense in which it also points unintentionally toward ‘race’s’ overcoming. This cannot be a single, bold act of creativity, a triumphant, once-and-for-all negation. It must be more like a gradual withering away arising from growing irrelevancy. At the smaller than microscope scales that open up the body for scrutiny today, ‘race’ becomes less meaningful, compelling, or salient to the basic tasks of healing and protecting ourselves” (2000, page 37)

Leaving aside the geographical myopia (there are few molecular biologists in Irian Jaya, or Rwanda), I think with Donna Haraway (1997, pages 213–266) that the Human Genome Project and related biocapitalism do indeed reify race and humanity as information. It is strange that Gilroy, who is so deft at examining race’s capricious manifestations in all forms of cultural practice, should defend genetics just because it works on a “subdermal” scale, praising its “postracial” potentialities without even engaging with its findings. If Gilroy had engaged with nonreductionist genetic explanations of phenotype (for example, of Richard Lewontin, which he does cite), he would see that genetics need not testify to the ultimate sameness of humans and what he calls “strategic universalism”.

Strategic universalism entails brushing aside the “minor differences” between bodies to make space for accepting alterity *within* a common humanity; this is where Gilroy follows Hegel and Fanon. Gilroy tells of Benjamin Bender, an inmate of the Nazi death camp Buchenwald who was liberated by black American soldiers:

“The huge roll call square was full of American soldiers, General Patton’s best, tall black men, six footers, with colourful scarves around their necks. I had never seen black men before. They were unreal to me. The soldiers were trying to help, carrying inmates on stretchers, some dead, some dying and stretching out their hands saying, ‘Brother, I’m dying, give me your hand.’ The soldiers were in shock, crying like babies. They gave them their hands” (Bender, cited in Gilroy, 2000, page 304).

Like Fanon’s train passage, this is a powerful instance of phenotypical encounter, except that here it leads to a mutual sensing of vulnerability and quietly communicated solidarity instead of the racist epidermal schema. Again, language is only part of the situation, and again phenotypical difference is rich with potential. Strangely, however, Gilroy insists on downplaying the role that the soldiers’ black skin played in the encounter:

“These encounters are powerful reminders of the arbitrariness of racial divisions, the absurdity and pettiness of racial typologies, and the mortal dangers that have always attended their institutionalization. Their eloquent testimony to the unity and sameness of the human species and the morality of intersubjective recognition is all the more valuable for being offered innocently from the twentieth-century core of radical evil” (2000, page 305).

If racial divisions are “arbitrary”, “absurd”, “petty”, “dangerous”, why give Bender’s testimony as an example of cosmopolitanism? The encounter was cosmopolitan and touching exactly *because* there were racial divisions, however essentialist: “I had never seen black men before.” In this case, phenotypical differences (like skin colour) and differences in fortune *enable* the ethical engagement with otherness. This is far from saying that racial divisions are natural or justified; only that cosmopolitanism takes them into account. Cosmopolitanism cannot invoke a transcendent plane such as “the unity and sameness of the human species”. That would deny not only the historical and geographical immanence of *this* construction of the human, but also the real, tangible differences between bodies that matter in face-to-face encounters.

More often than not, the imagination of a transcendent realm beyond human difference betrays the material privileges and epistemological biases of those who are doing the imagining (male, healthy, mobile, English-speaking, access to Internet, and usually white). It is the very invocation of transcendence that sets some apart from others. By not explicitly distinguishing postracial humanism from naïver versions of universalism (such as ‘under the skin we’re all the same’), it is unclear how Gilroy can escape the criticism that as a privileged academic he forgets the real barriers that stand in the way of transcending race.

In conclusion, Gilroy asserts the possibility and even burgeoning existence of racial transcendence without first seriously addressing the question of *what* needs to be transcended. ‘Racial’ oppression, for sure; but if an ontology of race has to be abandoned altogether, how do we specify what needs to be fought against? Gilroy would probably argue that this question is redundant. What needs to be fought is the categorisation of humans into races; fighting oppression is fighting mental categories. Race, it’s all in the mind: Gilroy’s conception of race tends to the purely ideological. The project of deontologising race requires a disavowal of matter as such, as in Butler’s feminism. But sadly, the structures of racism and sexism encompass much more than just mental categories.

### **The disavowal of matter**

Latour (1991 [1993]) has argued that modern epistemology is based on the desperate attempt to dichotomise Nature and Society, the nonhuman and the human, while real phenomena such as biotechnology increasingly mock that effort. Although Latour does not mention race, it presents an obvious example of this modern work of analytical purification. To put it in simple terms, the frameworks in which race have been conceived tend to be either biologicistic (racist science: races are fixed and history and oppression are irrelevant) or sociologicistic (cultural relativism and social constructionism: there is no race, there is only culture/language). Although physical anthropology has long rendered racist science obsolete (Cavalli-Sforza et al, 1994; Wolpoff and Caspari, 1997), the dominant social sciences’ take on race continues the modern project of analytical purification. Race is a social construction, full stop. This truism remains unpolluted by the messiness of phenotypical variation, the debate about ‘nature versus nurture’, the question of human origins, or the issue of ‘how many races’ there are (compare Proctor, 2003). To criticise race, its materiality had to be disavowed.

It was mainly for political reasons that phenotype had to be forgotten. The insistence on the natural stability of ‘races’ has been integral to empire, genocide, and eugenics, and continues to be evoked to justify racial hierarchies and antagonisms (Herrstein and Murray, 1994). But why are nature and biology, just like the body and matter in general, assumed to be static and deterministic? What if the cultural and biological dimensions of race are *both* inherently dynamic? Race is like everything else, much *more* than a social construction. Race is impure from the start: in Latour’s terminology, “hybrid”.

My argument for materiality joins others. It can be said, with a little hyperbole, a ‘material turn’ is happening in Anglophone social science and humanities. From theatre studies to cognitive psychology, the materiality of the social is slowly being reaffirmed in new ways, avoiding the reductionisms and positivisms of past materialisms. It is especially the materiality of human *bodies* that interests me here. Grosz (1994a) coined the term “corporeal feminism”, which radicalises feminism’s insistence on sexual difference while simultaneously refuting that this difference is dichotomous, innate, or one dimensional. Corporeal feminism attacks the lingering mind–body dualism in the theorisation of gender–sex, by showing that, contrary to what (male) philosophy has made of it, corporeality is itself open to transformation and contestation.

This ontology of embodied difference can be extended to other social differences than gender–sex, including race–phenotype, though the biocultural specificity of each difference needs to be respected.

“If the mind is necessarily linked to, perhaps even a part of, the body and if bodies themselves are always sexually (and racially) distinct, incapable of being incorporated into a singular universal model, then the very forms that subjectivity takes are not generalizable. Bodies are always irreducibly sexually specific, necessarily interlocked with racial, cultural, and class particularities. This interlocking, though, cannot occur by way of intersection (the gridlike model presumed by structural analysis, in which the axes of class, race, and sex are conceived as autonomous structures which then require external connections with the other structures) but by way of mutual constitution” (Grosz, 1994a, pages 19–20).

In Grosz’s later Deleuze-inspired writings on architecture (2001), she argues that the futurity of social space can be affirmed and fought for only *through* the differential embodiments of specific places. This embodied politics of space could be fruitfully carried beyond feminism. Plunging into the myriad flows and connections of real space, corporeal feminism leaves behind the philosophical idealism of Lacan and discourse-Foucault, to which so much contemporary theory adheres. This revisiting of ‘real space’ is not naïve realism or positivism. And it differs from historical-dialectical materialism, as it has learnt from poststructuralism that the world is not teleological, mechanical, and transparent. As will be argued in the following section, all the openness and complexity that are attributed to culture, language, and mind, are in fact merely peculiar instances of how the universe in its entirety works. It is worth remembering that only in the modern West has the creativity of language been posited as unique and primary in relation to everything else.

### **Anthropology, biology, emergence**

In these epistemological days, anthropology is criticised for *mediating* nonwhite bodies and places through a Euro-American lens. I would like to treat the discipline more positively, as a third entry point into the ontology of race, after phenomenology and feminism. Anthropology is in a sense a privileged domain for theorising the heterogeneous materiality of the social, having always studied phenotypes, habitats, customs, beliefs, nutrition, and artefacts together, and across the planet (compare Mukhopadhyay and Moses, 1997). Though undeniably anthropologists willy-nilly extended European imperialism, it is their way of getting to know phenotype and culture on a continuum that interests me. But it was modern epistemology that again divided cultural and physical anthropologists. Peter Wade (2002) argues that this division is precisely what prevents a critical, neither biologically nor culturally deterministic, conception of race. He states simply: “In understanding race, social science might do well to be open-minded about biology” (2002, page 121). Tim Ingold provides a transdisciplinary framework for such an ontological approach to race.

“Indeed so long as it is assumed that the biological constitution of human organisms is given as a genetic endowment, there can be no escape from racism save by disconnecting cultural from biological variation. Clearly there is no foundation in fact for the raciological belief that cultural differences have a genetic basis. My point, however, is that in turning its back on racist dogma, subsequent theorising about human evolution has constituted the eighteenth-century view in all its essentials. Once again human beings figure in a dual capacity, on the one hand as species of nature, on the other as creatures who—uniquely among animals—have achieved such emancipation from the world of nature as to make it the object of their consciousness” (2000, page 389).

Drawing primarily on Merleau-Ponty and ecological perspectives, Ingold's debunking of the nature–culture binary could encourage anthropologists to contribute to a *critical biogeography of human phenotype*. Phenotypical variations of humans is necessarily embedded in contingent networks of resources, symbiosis, competition, communication, migration, environmental constraints, and individual life trajectories—just as ecology shows it is for other animals. Alfred W Crosby's biological history of European colonialism in *Ecological Imperialism* (1986) is worth mentioning here.

In fact, biology itself could be a fourth place to start thinking about the complex materiality of the social. After all, quite far from what most social scientists have made of it, biology (as I understand it) is the science of *life*: of movement and unpredictability at every level. Grosz has suggested Charles Darwin himself could be useful to progressive politics: “He is perhaps the most original thinker of the link between difference and becoming, between matter and its elaboration in life, between matter and futurity” (1999, page 34). *The Origin of Species* (1859/1998) is indeed full of references to “difference”, “tendency”, “circumstance”—and, of course, “geographical variation”.

Evidently Darwin and race are a volatile couple. But yielding to the pull of social Darwinism or Nazism is conceivable only if Darwin is equated with essentialism and teleology (racial hierarchy is ‘natural’, that is, unavoidable). As Grosz and many biologists have shown, a reactionary reading of Darwin does not respect his persistent emphasis on historical and geographical contingency. Nature is never given, it has to be continually remade. It is well known that, in spite of his Victorian belief that the “white race” was intellectually superior, Darwin also and paradoxically insisted that “It may be doubted whether any character can be named which is distinctive of a race and is constant” ([1871] 2003, page 174). With Darwin, human phenotypes can be understood as continuous and multifaceted, not discrete or linear; as much products of isolation as of migration and miscegenation. The population biology of Ernst Mayr has long argued against the essentialism inherent to taxonomical biology (Mayr, 1963). And especially for humans, intraspecies physical differences are accumulated over many generations by active sexual selection (that is, culture), not simply natural selection (that is, ‘blind’ survival of the fittest). Such a materialist biology cannot be reconciled with the molecular Macchiavelism of neo-Darwinians like Richard Dawkins (1982).

As Lewontin's *Human Diversity* (1995) shows, scientists and poststructuralists can teach each other a thing or two about how to avoid reductionism and essentialism in conceptualising difference. In the first comprehensive effort at a Deleuzian philosophy of science, Manuel DeLanda (2002) relies heavily on the innovative encounters between the life sciences and nonlinear mathematics. The basic question Stuart Kauffman (2000) addresses, for example, is how it is physically possible that a system starts behaving on its own behalf. What Kauffman is talking about can perhaps best be captured by the term *emergence*: the nonnecessary, gradual, spontaneous, and constrained accumulation of organisation and a larger ‘agency’ through the synergy of smaller forces.

The concept of emergence is spreading rapidly through the popular science writing on so-called complexity theory. Steven Johnson begins his *Emergence* with the slime mold:

“The slime mold spends much of its life as thousands of distinct single-celled units, each moving separately from its other comrades. Under the right conditions, those myriad cells will coalesce again into a single, larger organism, which then begins its leisurely crawl across the garden floor, consuming rotten leaves and wood as it moves about. When the environment is less hospitable, the slime mold acts as a single organism; when the weather turns cooler and the mold enjoys a large food supply, ‘it’ becomes a ‘they’. The slime mold oscillates between being a single creature and a swarm” (2001, page 13).

DeLanda is helpful in reading Deleuze's *Difference and Repetition* ([1968] 1994) as our best philosophical treatise on emergence. Anglophone Deleuze studies unfortunately exhibit an aversion to thinking about how the emergence of social entities and power relations happens. It is not difficult to affirm the rhizomatic, the nomadic, and the creative potential of the world. The trick is to explain how, *even then*, we are faced with the slime molds of racism, sexism, capitalism, and what have you. The concept of emergence is Deleuze's true contribution to philosophy, not his tendency to cosmo-anarchy (which admittedly tends to obscure the rigour of his thinking). A racial organisation could emerge in that French train *from* the synergy of a host of bodies and things. For an ontology of the materiality of race, a conception of emergence is indispensable. Apart from Darwin, ecological anthropology, and the embodied politics of feminism and Fanon, it is Deleuze's project of grappling with emergent materiality that philosophically subtends a critical materialism.

### Spatiality, viscosity, machinism

There is an explicit or implicit notion of space imbricated in any ontology. Thus, Doreen Massey has consistently attacked the static, nonrelational conception of space of the modern masculine tradition (Massey, 2005). But neither is the spatiality Massey defends one of pure flux, in which there are no 'points' (compare Doel, 1998). What is needed is a concept of space in which fixity can *emerge from* flux under certain conditions. This is different from saying that there is perpetual vacillation at infinite speed between two poles, fixity and flow, like in some postmodern dialectic or like Derridean undecidability, even if the poles are effects of the vacillation. Real process is not vacillary; it is irreversible and messy. To evoke the continuous but constrained dynamism of space, I want to propose the figure of *viscosity*. Neither perfectly fluid nor solid, the viscous invokes surface tension and resistance to perturbation and mixing. Viscosity means that the physical characteristics of a substance explain its unique movements. There are local and temporary thickenings of interacting bodies, which then collectively become sticky, capable of capturing more bodies like them: an emergent slime mold. Under certain circumstances, the collectivity dissolves, the constituent bodies flowing freely again. The world is an immense mass of viscosities, becoming thicker here, and thinner there.

In *Genesis*, Michel Serres tries to understand emergence, how unity can emerge from the background noise of multiplicity. At one point he writes of the "chain of contingency":

*"No, the contingent chain does not break, its links slide over one another, as though viscous. They touch because they are adjacent, they touch like sailors' hitches or the loops of motorway cloverleaves are stacked upon one another. It is not a linkage, but a local pull, by way of little frictions. The local pull induces global movement very seldom, although it can happen. This is not a solid chain, it is simply a liquid movement, a viscosity, a propagation that wagers its age in each locality"* ([1982] 1995, page 71, his italics).

Race must similarly be conceived as a chain of contingency, in which the connections between its constituent components are not given, but are made viscous through local attractions. Whiteness, for example, is about the sticky connections between property, privilege, and a paler skin. There is no essence of whiteness, but there is a relative fixity that inheres in all the 'local pulls' of its many elements in flux. Emergence and viscosity are complementary concepts, the first pertaining to the genesis of distinctions, the second to the modality of that genesis.

Race's spatiality is emphatically *not* about discrete separations between 'races'. Nobody 'has' a race, but bodies are racialised. Gilroy asks: "if 'race' is a useful way

of classifying people, then how many ‘races’ are there?” (2000, page 37). This question betrays a logic of solids and grids. The concept of race is not for taxonomic ordering, but for studying the *movements between* human bodies, things, and their changing environment. The concept of race is like the concept of subculture, or disease—nobody wants to know how many subcultures or diseases there are, but how they come to be.

What are the constituent components of race? Potentially everything, but certainly strands of DNA, phenotypical variation, discursive practices (law, media, science), artefacts such as clothes and food, and the distribution of wealth. How these are connected is entirely *immanent* to the way certain humans behave in certain circumstances. Sarah Whatmore (2002) might call race intrinsically more-than-human, irreducible to either biology or culture. Deleuze and Guattari’s *A Thousand Plateaus* can be understood as a conceptualisation of irreducible and immanent heterogeneities like race (though they do not explicitly confirm that race is such a heterogeneity). They call these heterogeneities *machinic assemblages*.

“Taking the feudal assemblage as an example, we would have to consider the interminglings of bodies defining feudalism: the body of the earth and the social body; the body of the overlord, the vassal, the serf; the body of the knight and the horse and their new relation to the stirrup; the weapons and tools assuring a symbiosis of bodies—a whole machinic assemblage. We would also have to consider statements, expressions, the juridical regime of heraldry, all of the incorporeal transformations, in particular, oaths and their variables (the oath of obedience, but also the oath of love, etc.): the collective assemblage of enunciation. On the other axis, we would have to consider the feudal territorialities and reterritorializations, and at the same time the line of deterritorialization that carries away both the knight and his mount, statements and acts. We would have to consider how all this combines in the Crusades” (Deleuze and Guattari, [1980] 1987, page 89).

A machinic geography of bodies asks what immanent connections they forge with things and places, how they work, travel, fight, write, love—how these bodies become viscous, slow down, get into certain habits, into certain collectivities, like city, social stratum, or racial formation.

Machinism is wary of mediation: it prefers connections and viscosities. Machinism asks how incredibly diverse processes (such as agriculture and sexuality, religion and property law) interlock, like cogs and wheels instead of signifiers and signifieds. But machinism is not physicalism. It understands entities not as perfectly knowable cause–effect sequences, but as bundles of virtual capacities. Approaching phenotype machinically means being prepared for the unpreparable: phenotype connects in infinite ways. Living, social machines are not machines in the narrow sense, because they lack a preconceived ‘function’ and are constantly evolving.

A quick return to Fanon to elucidate the machinic assemblage of race. Another well-known quote:

“The native town is a hungry town, starved of bread, of meat, of shoes, of coal, of light. The native town is a crouching village, a town on its knees, a town wallowing in the mire. It is a town of niggers and dirty arabs. The look that the native turns on the settler’s town is a look of lust, a look of envy; it expresses his dreams of possession—all manner of possession: to sit at the settler’s table, to sleep in the settler’s bed, with his wife if possible. The colonized man is an envious man. And this the settler knows very well; when their glances meet he ascertains bitterly, always on the defensive ‘They want to take our place’. It is true, for there is no native who does not dream at least once a day of setting himself up in the settler’s place” ([1961] 1967, page 30).

Numerous authors have theorised about the intersection of possession, sexuality, urbanism and race (for example Low, 1996). The machinic geography of phenotype, however, takes issue with the Hegelian self/other scheme that supports much of this work, and studies instead how certain bodies *stick* to certain spaces, how they are chained by hunger, cold, darkness, mud, poverty, crime, glances full of envy and anxiety. The segregation between colonists and colonised is the *apparently* binary result of many nitty-gritty material processes which, when analysed, render it a lot less binary. This also means race is devious in inventing new ways of chaining bodies. Race is creative, constantly morphing, now disguised as sexual desire, now as *la mission civilatrice*, all the while weaving new elements in its wake. Deleuze and Guattari might say that what defines race is not rigidity or inevitability, but its “lines of flight”. Race can be as stark as apartheid, but mostly it is fuzzy and operates through something else.

The social sciences literature on race (urban geography, postcolonial theory, film studies) remains relevant from the machinic perspective. Race is shown to exist through ghettos, travel writing, and Hollywood cinema. What this literature shows is precisely race’s plastic, emergent, and more-than-human spatiality (for example, Anderson, 1991; hooks, 1992; Jackson and Penrose, 1993; Jacobs, 1996; Robinson, 1996). Still, more geographical and anthropological work needs to be done to theorise the biocultural imbrications of race. For example, in the introduction to the collection *Race, Nature and the Politics of Difference* it is argued that

“both race and nature are historical artefacts: assemblages of material, discourse, and practice irreducible to a single timeless essence. By charting the ways in which race and nature work together, and by tracing key disruptions in their busy traffic, we emphasize the cultural labors required to maintain them as they are. ... We write against racisms—not against ‘race’ but against the exclusionary effects produced through its invocation, deployment, and reproduction” (Moore et al, 2003, page 42).

But the full implications of the term *assemblage*—that it includes biological and other nonhuman forces—still need to be explored. There is some work being done that quietly disrespects the disciplinary boundaries of modern epistemology. Anthropologically inclined medical research has the potential to offer a critical approach to the biocultural aspects of racial division (Wade, 2002, pages 117–122). Luca Cavalli-Sforza maps human migration using genetics and physical anthropology as well as archaeology, linguistics, and history (Cavalli-Sforza et al, 1994). This research deserves theoretical attention, so that more rigorous studies of the discursive, technological, and economic embeddedness of phenotype can be imagined. Zack (2002) has recently argued that physical anthropology can only account for variation through heredity, not the folk (taxonomic) conception of race as such. She therefore continues to define ‘race’ as an essentialist social construction which has no basis in the science of phenotype. What is needed, however, is to highjack the folk conception and rethink race as culturally embedded phenotype. Saying that race has no basis in biology is different from saying that phenotype plays *some* role in racial differentiation. Phenotype is a crucial element in the assemblage called race, and, because phenotype is already nondiscrete and shaped by culture, race cannot be an essentialist concept. Now, what does this nonessentialism mean to antiracist politics?

### **A thousand tiny races**

Every time phenotype makes another machinic connection, there is a stutter. Every time bodies are further entrenched in segregation, however brutal, there needs to be an affective investment of some sort. This is the ruptural moment in which to intervene.

Race should not be eliminated, but *proliferated*, its many energies directed at multiplying racial differences so as to render them joyfully cacophonous. Many in American critical race theory also argue against a utopian transcendence of race, taking from W E B Du Bois and pragmatism a reflexive, sometimes strategically nationalist attitude towards racial embodiment (compare Outlaw, 1996; Shuford, 2001; Winant, 2004).

What is needed is an affirmation of race's creativity and virtuality: what race *can be*. Race need not be about order and oppression, it can be wild, far-from-equilibrium, liberatory. It is not that everyone becomes completely Brownian (or brown!), completely similar, or completely unique. It is just that white supremacy becomes strenuous as many populations start harbouring a similar economic, technological, cultural productivity as whites do now, linking all sorts of bodies with all sorts of wealth and all sorts of ways of life. That is, race exists in its true mode when it is no longer stifled by racism.

"The race-tribe exists only at the level of an oppressed race, and in the name of the oppression it suffers; there is no race but inferior, minoritarian; there is no dominant race; a race is defined not by its purity but rather by the impurity conferred upon it by a system of domination. Bastard and mixed-blood are the true names of race" (Deleuze and Guattari, [1980] 1987, page 379).

In "A thousand tiny sexes", Grosz (1994b) follows a well-known passage of Deleuze and Guattari to argue for non-Hegelian, indeed protohuman feminism that utilises lines of flight of the gender assemblage to combat heterosexist patriarchy.

"If we consider the great binary aggregates, such as the sexes or classes, it is evident that they also cross over into molecular assemblages of a different nature, and that there is a double reciprocal dependency between them. For the two sexes imply a multiplicity of molecular combinations bringing into play not only the man in the woman and the woman in the man, but the relation of each to the animal, the plant, etc.: a thousand tiny sexes" (Deleuze and Guattari, [1980] 1987, page 213).

Similarly, the molecularisation of race would consist in its breaking up into *a thousand tiny races*. It is from here that cosmopolitanism should start: the pleasure, curiosity, and concern in encountering a multiplicity of corporeal fragments outside of common-sense taxonomies.

"We walk the streets among hundreds of people whose patterns of lips, breasts, and genital organs we divine; they seem to us equivalent and interchangeable. Then something snares our attention: a dimple speckled with freckles on the cheek of a woman; a steel choker around the throat of a man in a business suit; a gold ring in the punctured nipple on the hard chest of a deliveryman; a big raw fist in the delicate hand of a schoolgirl; a live python coiled about the neck of a lean, lanky adolescent with coal-black skin. Signs of clandestine disorder in the uniformed and coded crowds" (Lingis, 2000, page 142).

Machinism against racism builds upon a gradual, fragmented, and shifting sense of corporeal difference, that of course extends far further than the street. Responsibility, activism, and antiracist policy will follow only from feeling and understanding the geographical differentials that exist between many different kinds of bodies: between a Jew and a black soldier, between a woman in the Sahel and a woman in Wall Street, between a Peruvian peasant and a Chinese journalist. A machinic politics of race takes into account the real barriers to mobility and imagination that exist in different places; cosmopolitanism has to be invented, not imposed.

It may seem that machinism is as utopian and open ended as Gilroy's transcendent antiracism. It is not, because it is empirical, immanent, and pragmatic. The machinic geography of phenotype shows that racism differs from place to place, and cannot be overcome in any simple way. It shows that white supremacy can subside only by

changing the rules of education, or the financial sector, or the arms trade, or the pharmaceutical industry, or whatever. For machinic politics, the cultural studies preoccupations with apology, recognition, politically correct language and reconciliation, or else cultural hybridity, pastiche, and ambivalence, threaten to stand in the way of really doing something about the global structures of racism. A thousand tiny races can be made only if it is acknowledged that racism is a material, inclusive series of events, a viscous geography which cannot be 'signified away'. Miscegenation, openness to strangers, exoticism in art, and experimentations with whiteness can certainly help. But ultimately cosmopolitanism without critique and intervention remains complacent with its own comfortably mobile position. In a word, ethics encompasses politics, and politics starts with convincing people of race's materiality.

### Close

With racism enduring every well-meant attack (it's arbitrary! it's arbitrary!), it seems crucial for the humanities and social sciences to start engaging with the reality of phenotype—phenotype itself, unmediated, in all of its connective glory. Following recent turns towards embodiment and materiality, the mediation model as endorsed by Butler and many in race and ethnic studies becomes inadequate to understand processes of racialisation. Race is not only a problem of how people think about skin colour. We need to know what race really *is*, that is, what it can be. Deontologising race, as Gilroy wishes to do, even if possible, seems a bad option if all the ontological questions are left to reductionist sociobiologists and far-right politicians to answer. As Haraway's writings attest, social scientists and cultural theorists cannot let multinationals and the sensationalist science press 'do' all the biology. There is simply too much at stake to continue brushing aside the biological as 'discursive practice'. Haraway's project, like Latour's, nonetheless remains too epistemological (science *studies*). With the profusion of popular science books and television programmes on 'human nature', and this in conjunction with growing xenophobia, the public sphere is craving for critical social science interventions addressing these issues, not as material–semiotic constructions, but as debatable empirical, political and philosophical *findings*.

Race is completely contingent, but not arbitrary: in hindsight, its differentiations and inequalities can be explained (Winant, 2004). A process such as race clearly cannot be studied with classical notions of identity, causality, *cogito*, representation, and reducibility. As a configuration made viscous by a whole host of processes, race requires genetics *and* ethnography *and* economics *and* literary theory to be understood. And a critical dialogue between the humanities and the physical sciences will be greatly facilitated by the nonmodern ontology of complexity theory.

I discussed several entry points into such a pluralist ontological understanding of race. One is the phenomenology of race, provided it keeps the focus on embodied, social interaction, in which an ethics of responsibility follows from sensing the intensities between oneself and others, however distant. Another is the political appraisal of difference in corporeal feminism. Anthropology is a third entry point, at least if eased from the epistemological and imperialist straightjackets of modernity. Biology, as inaugurated by Darwin, is a contextual and nuanced way of understanding the intrinsic vitality of matter. Deleuze's metaphysics of difference and repetition, finally, gives philosophical valence to the scientific project of understanding the emergence of race and the political project of striving for the freedom of more bodies.

Race shows the openness of the body, the way organisms connect to their environment and establish uneven relationships amongst each other. The creativity of nature is not good in itself, but it can be *made* good. The molecular energies of race can be

sensed, understood, and harnessed to crumble the systemic violence currently keeping bodies in place. Hoping for, striving for a thousand tiny races is not annihilating nature from culture, but on the contrary, immersing oneself in nature's lines of flight. This politics is also not mystical or anarchistic, it is pragmatic and includes state policy as well as what Deleuze and Guattari call micropolitics. It is first of all empirical: understand what race is, know its potentialities, try to sense them hiding around you, find out what is keeping them from becoming actual.

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