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Discussion

Unnaturalised racial naturalism

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ABSTRACT

Quayshawn Spencer (2014) misunderstands my treatment of racial naturalism. I argued that racial naturalism must entail a strong claim, such as "races are subspecies", if it is to be a substantive position that contrasts with anti-realism about biological race. My recognition that not all race naturalists make such a strong claim is evident throughout the article Spencer reviews (Hochman, 2013a). Spencer seems to agree with me that there are no human subspecies, and he endorses a weaker form of racial naturalism. However, he supports his preferred version of 'racial naturalism' with arguments that are not well described as 'naturalistic'. I argue that Spencer offers us an unnaturalised racial naturalism.

1. Introduction

Quayshawn Spencer has written some welcome criticism of my article *Against the New Racial Naturalism* (Hochman, 2013a). His critique focuses on what he calls an "unnatural interpretation of racial naturalism" (Spencer, 2014, p. 38). The unnatural element of my interpretation was, according to Spencer, the importance I gave to the subspecies concept. As he rightly observes, one can believe in the naturalness of racial classification without committing oneself to a belief in the existence of human subspecies. I take this as an opportunity to clarify my position. Racial naturalism must entail a substantive claim, such as "races are subspecies", if it is to contrast with anti-realism about biological race. However, there is more than one subspecies concept, and not every subspecies concept is necessarily synonymous with 'race'.

Strong versions of racial naturalism are wrong, I have argued, on empirical grounds (Hochman, 2013a, 2013b). The problem with weak versions of racial naturalism is that they do not contrast with anti-realism about biological race. When race naturalists weaken their position they end up agreeing with their opponents about human biology, and defending a trivialised definition of race. Weak racial naturalism is wrong on semantic grounds. Spencer defends what he calls an "intermediate" view (Spencer, 2014, p. 41). However, as I will show, this view is not well described as 'racial naturalism'. In what reads like an attempt to save the category of race at any cost, Spencer takes off his naturalist hat.

To demonstrate the unnaturalness of my approach to racial naturalism Spencer claims, "one would be hard pressed to find a racial naturalist who equates a biological view of race with the view that humans have subspecies" (Spencer, 2014, p. 40). I was not hard pressed to find a race naturalist willing to commit himself to this view. In fact, one need not look any further than Charles Darwin:

> Some naturalists have lately employed the term "sub-species" to designate forms which possess many of the characteristics of true species, but which hardly deserve so high a rank. Now if we reflect on the weighty arguments above given, for raising the races of man to the dignity of species, and the insuperable difficulties on the other side in defining them, it seems that the term "sub-species" might here be used with propriety. But from long habit the term "race" will perhaps always be employed. (Darwin, 1872, p. 219)

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To further disabuse the reader of any notion that I plucked the connection between race and subspecies from my imagination please consider the following quotes:

> [D]uring the modern evolutionary synthesis, both Theodosius Dobzhansky and Ernst Mayr developed "geographic" definitions of 'race' or 'subspecies'. (Spencer, 2013, p. 247)

> The races, otherwise known as subspecies, may be connected by transitions in geographically intermediate zones, or they may be separated by migration barriers and fail to show morphological connecting links. (Dobzhansky, 1944, p. 252)

> [M]any contemporary biological theories of race are theories of *subspecies*. (Spencer, 2012, p. 190; emphasis in original)

> If we discover a population within a species that is mostly inbred, that is, it is considerably more probable that members of the population will mate with one another than with outsiders, then we have an embryonic version of the condition, reproductive isolation, that distinguishes species. Naturalists identify such populations as subspecies, or races. (Kitcher, 2007, p. 296)

> Race, as a biological concept, is synonymous with subspecies. Human races are subspecies of *Homo sapiens*. (Andreasen, 1998, p. 201)

Note that Robin Andreasen and Philip Kitcher, two of the authors I supposedly misinterpret, use 'race' and 'subspecies' interchangeably. The careful reader will also have noticed Spencer's appearance in the list of quoted authors above. He seems, quite literally, to have forgotten himself.

Spencer continues to argue, "Furthermore, no new racial naturalist tries to use genetic clustering results of human populations as evidence that humans have subspecies" (Spencer, 2014, p. 40). But this is exactly what Neven Sesardic does in his hotly disputed *Race: A Social Destruction of a Biological Concept*:

> In biology, the concept of "race" is often regarded as synonymous with "subspecies". Subspecies are populations of organisms that, despite belonging to the same species, differ among themselves with respect to frequencies of alternative alleles at a number of loci... Research has shown that, indeed, groups of people of significantly different geographical ancestries do differ from one another genetically: when compared on many genetic loci these groups have different frequencies of different alleles. (Sesardic, 2010, p. 148)

All of the authors quoted above are, or were once, race naturalists. While Spencer is correct to point out that not all race naturalists think of 'races' as subspecies, he overplays this point by claiming that one would be "hard pressed" to catch a race naturalist in the act of making such an unnatural connection.

I am of course aware that race naturalists are quite diverse in their views, and that what ties them together is perhaps little more than their shared belief in the existence of human races, in a biological sense. My recognition that there are scholars who argue for the reality of race but who do not make the further claim that there are human subspecies is plain throughout the article that Spencer takes as his target. See, for instance, my discussion of A.W.F. Edwards on page 343, of Armand Leroi on page 346, and of Sesardic (who oscillates between an equation of race with subspecies and a weaker view) on page 350 (Hochman, 2013a).

Any definition of racial naturalism that goes beyond "race is biologically real" will have a normative as well as a descriptive component. I argued that "Race naturalists need to tell us why "racial" classifications pick out subspecies, rather than more superficial groupings" (Hochman, 2013a, p. 350). Spencer understands my approach to racial naturalism as descriptive, but it was intended as *explicative*. As Rudolf Carnap explained the idea, "*explication* consists in transforming a given more or less inexact concept into an exact one or, rather, in replacing the first by the second" (Carnap, 1962, p. 3). Anil Gupta (2008) points out that *explicative definitions* are neither fully descriptive nor are they fully stipulative. They respect some—but not all—prior uses of the term, and they tell us how that term *ought* to be used. If it was not clear that my definition was intended as explicative, rather than merely descriptive, it was indeed a fault in the paper, and I thank Spencer for calling attention to it so that I can clarify my argument.

Spencer favours a descriptive approach. He offers a tripartite taxonomy of the race debate, calling the three debates he identifies *the philosophical race debate*, *the biomedical race debate*, and *the biological race debate*. Spencer characterises these debates in relation to what I called 'the new racial naturalism': racial naturalism which draws on 21st century genetic clustering studies (almost invariably Noah Rosenberg et al.'s, 2002 study). Spencer describes the various debaters as follows:

> A new racial naturalist in the philosophical race debate is a person who uses genetic clusters of human populations to argue that race, as understood by current ordinary folk in the U.S., is biologically real. A new racial naturalist in the biomedical race debate is a person who uses genetic clusters of human populations to argue that race, as understood by current ordinary folk in the U.S., is useful in biomedical research and clinical practice. A new racial naturalist in the biological race debate is a person who uses genetic clusters of human populations to argue that humans can be divided into biological races according to a concept of race in use among professional biologists. (Spencer, 2014, p. 41)

Spencer argues that race naturalists can answer my central objections to the new racial naturalism. His aim is to show that, contra my claim that race naturalists have been "too hasty" in their racial interpretation of genetic clustering studies, their inference from genetic cluster to race has been thoroughly considered, and is well founded.

There is an interesting philosophical question hidden behind the pun of Spencer's title: what makes an account of race natural, or rather, naturalistic? Most contemporary philosophers are naturalists in the minimal sense that they have respect for science and do not posit the existence of 'spooky stuff'. When we make a point to label a position as 'naturalistic' we are saying something more substantial about the commitments to science that the position entails. What might this mean when it comes to racial naturalism? We can answer this question from an ontological and a methodological perspective.

Ontological naturalism is usually understood to entail the claim that the scientific image of reality is exhaustive. One might then say that racial naturalism is the view that race is a part of that scientific image. This does not help, because there is not yet scientific consensus about the reality of race. However, ontological naturalism is also sometimes understood to entail another claim: that the natural, but not the social sciences, contribute to the scientific image of reality. This is more helpful. Social constructionists about race believe that race is a social kind, but not a natural kind. They are realists, but not naturalists about race. I do not intend to endorse this form of ontological naturalism, but it does help us to understand what it might mean to call a position 'naturalistic'.

Methodological naturalism involves a commitment to scientific methodology as a way of gaining knowledge. In the case of race, this should be understood as a commitment to the methodologies of the natural sciences. The methodologies that lead social scientists and other scholars to posit the existence of 'social races' are not usually described as 'naturalistic'. For an account of race to be naturalistic, it must be consistent with the standard scientific

methodologies used to identify biological kinds below the species level.

The structure of my reply is as follows. In the following section I argue that race naturalists need to support a strong version of racial naturalism in order for their view to contrast with anti-realism about biological race. In Section 3 I discuss Spencer's tripartite taxonomy of the race debate, arguing that (1) the philosophical race debate cannot tell us whether race is real from a naturalistic perspective; (2) the biomedical race debate, as Spencer defines it, is irrelevant to the reality of race; and (3) the biological race debate has almost run its course: we already know, for the main part, which race concepts used by professional biologists *could* be applied to humans. In Section 4 I argue that Spencer's defence of racial naturalism is non-naturalistic and unconvincing. He imagines how a 'philosophical race debater' and a 'biological race debater' might respond to four problems I had identified with the new racial naturalism. The 'philosophical race debater' responds to one; the 'biological race debater' tackles the remaining three. Spencer not only fails to defend racial naturalism within the logical boundary of any one debate, he sets loose a non-naturalist into the discussion, and then the naturalist helps himself to a 'solution' concocted by the non-naturalist! Spencer's is not a naturalistic racial naturalism.

2. Racial naturalism, weak and strong

There is a very simple argument for thinking 'human race' is synonymous with 'human subspecies':

1. Racial naturalism, as the title suggests, is a naturalistic theory
2. Naturalism is an attempt to ally philosophy with science
3. Race is a within-species biological classification
4. The part of science that deals with biological classification is taxonomy
5. In taxonomy the level below species is subspecies
6. Subspecies is the lowest taxonomic level recognised by professional systematists

C. If 'human race' were a scientific category of classification then human races would be subspecies

While the argument above presents a simple case for the view that races, if they exist, are subspecies, it can be resisted. Darwin was right in his prediction that race would continue to be used in the human case, rather than 'subspecies'. However, the history of the two concepts is much more complicated than this observation might suggest. There is more than one subspecies concept, and not all subspecies concepts can be well understood as synonyms of race. Moreover, 'race' is still used in the non-human literature, and there are now many race concepts to choose from. By appealing to weak definitions of race, according to which races are more arbitrary than subspecies, race naturalists may argue that while all of the premises in the argument above are correct, they do not lead to the conclusion.

Ernst Mayr argued something along these lines. But first he observed,

> You can read in every textbook on evolution that geographic races of animals, when isolated from other races of their species, may in due time become new species. The terms "subspecies" and "geographic race" are used interchangeably in this taxonomic literature. (Mayr, 2002, p. 89)

However, Mayr himself actually suggested a distinction between race and subspecies. He wrote that a "subspecies is a geographic race that is sufficiently different taxonomically to be worthy of a separate name" (Mayr, 2002, p. 90). Worthy, that is, of a *trinomial* name. *Homo sapiens* is our *binomial* name. We belong to the genus *Homo* and to the species *Homo sapiens*. If our species were divisible into subspecies then third names, or trinomials, would be applied.

In effect, Mayr was weakening what he saw as the standard use of the race concept, according to which race and subspecies are synonyms. But if we accept this watering down of the concept then 'race' does not form a recognised level within the science of systematics, of which taxonomy forms a branch. This seems like a problem for the race naturalist. Even the view that races *are* subspecies is problematic for race naturalists because, as David Hull observed, "In general, professional systematists do not place much weight on the groupings below the species level" (Hull, 1998, p. 365). Most systematists see subspecies classification as, to a large extent, arbitrary. If we make 'race' a lower taxonomic level than subspecies it will be an even more arbitrary category of classification.

That is not to say that the populations Mayr calls 'geographic races' do not capture any variation in nature. It is a misconception that anti-realists about biological race believe that 'race' is totally uncorrelated with any biological difference: we just believe that it does not capture very much biological difference, and that it does not capture that difference very well. Sesardic defines social constructionism as the view that "Classifying people into commonsense races tells us absolutely nothing informative about biological characteristics of these people" (Sesardic, 2013, p. 287). But even the staunchest social constructionist knows that so-called 'common sense racial classification' tells us *somewhat* informative things about phenotypic traits: skin colour, hair texture, eye shape, etc. For instance, few people racialised as 'Asian' have naturally blonde hair. That 'race' correlates to some extent with phenotypic difference is a plain and obvious fact. To suggest that social constructionists believe otherwise is to neglect the principle of charity. Worse, it is to neglect something stronger—a 'principle of sanity'—because to believe that phenotypic difference is distributed randomly or that we are all phenotypically identical would be to lose touch with consensual reality.

Now we have two claims about misrepresentation, and two claims about failures of the principle of charity. Spencer charges me with misrepresenting the views of race naturalists. I am charging race naturalists with misrepresenting the views of social constructionists (or rather, anti-realists about *biological* race). Spencer argues that I am being uncharitable to race naturalists, I argue that race naturalists are being uncharitable to social constructionists.

I have responded to Spencer by clarifying that I did not intend to democratically represent the view of every race naturalist. I was trying to describe racial naturalism in a charitable light, and, as I readily admitted on page 349, I was finding this a difficult task. The difficulty I faced was that on a weak definition of racial naturalism race naturalists wind up saying something profoundly uninteresting—something we knew all along—and hardly anything that anti-realists about biological race would disagree with, apart from the use of the term 'race'. If we give a strong definition of racial naturalism then at least it makes an interesting claim about human biological diversity and population structure, one that contrasts with the views of anti-realists about biological race. Given the considerations above, I favoured a strong version of racial naturalism as the most charitable characterisation of the view. Spencer argues that weaker interpretations of racial naturalism are more charitable. I am equally happy to argue against such approaches to race. I do not think any form of racial naturalism has a bright future.

Spencer glosses over my discussion of these issues in the paper he reviews. He asks,

> why do racial naturalists need to make such a bold ontological claim? Racial naturalists could defend a view intermediate to

> "race has some genetic correlate" and "racial classifications pick out subspecies," and still succeed in challenging (pure) racial constructionists. (Spencer, 2014, p. 41)

The problem with the quote above is that while Spencer's preferred view is intermediate to pure social constructionism and a subspecies approach to race, he still takes pure social constructionism as his target. As I argued, nobody holds this position: "social constructionism is not the view that racialized groups have no biological correlates. The point of social constructionism, it seems needless to say, is not that we all have the same skin color, the same shaped noses, and exactly the same genetic composition. It is that there are socio-cultural and historical reasons for our racial categories, and that our biological differences map poorly onto so-called "racial" groups" (Hochman, 2013a, p. 349). I think Spencer is a social constructionist in this sense, which is why he contrasts his racial naturalism with constructionism of a purer variety.

Spencer is right that race naturalists could make a weaker ontological claim than "races are subspecies", and in doing so they could "still succeed in challenging (pure) racial constructionists" (Spencer, 2014, p. 41). The problem is that pure social constructionism is a category that I defined just to make the point that it has no serious adherents because of its utter implausibility. Race naturalists can fight against this view, and they will be victorious. But it will be a pyrrhic victory.

Spencer appears to agree with me that there are no human subspecies, but he thinks that mine is a pyrrhic victory because race naturalists do not think of races as subspecies. I have shown that at least some do, and I have argued that race naturalists should endorse strong racial naturalism of some sort. Spencer thinks my explicative definition of racial naturalism is unnatural. I do not need it to make my case. In fact, in another paper (Hochman, 2013b) responding to Sesardic (2010) I only mention subspecies once, in passing. Why Spencer does not consider this other paper is a puzzle to me.

My approach to race has developed since I wrote the paper Spencer reviews, and some of these developments can be found in my later article (Hochman, 2013b). I now think that it is useful to split racial naturalism into a weak and a strong version. *Strong racial naturalism* is the view that race is a privileged, objective, scientific representation of human biological diversity and population structure, and that there are a relatively small number of human races. *Weak racial naturalism* is the view that race is correlated to some minimal extent with biological difference, but that (1) the numbering of races will be arbitrary; (2) the differences between races may be relatively small; and (3) the existence of human races is consistent with human biological diversity and population structure being primarily clinal, or gradual in nature.

These definitions are silent about subspecies. Bringing in a subspecies concept would be a way of aligning a strong version of racial naturalism with a scientific methodology for subspecific classification. However, not all subspecies concepts can be used to operationalise race. We need to check them against our definition of race first, in order to ensure validity. We need to make sure we are testing for what we think we are testing for. Note that subspecies concepts are only the most obvious way to operationalise race. What is important is that racial naturalism is strong enough to contrast with anti-realism about biological race, and that it is *consistent* with scientific naturalism. This is not because scientific naturalism is right, but simply because racial naturalism is a form of naturalism.

In my later paper I argued that strong racial naturalism is false, and that weak racial naturalism is too weak to revive racial naturalism because it does not contrast properly with anti-realism about biological race (Hochman, 2013b). Unless there is some feasible intermediate position (Spencer does not provide one) race naturalists have to make the uncomfortable choice between a rock and a hard place.

Sesardic's (2013) reply to me is relevant to the current paper because like Spencer, Sesardic takes pure social constructionism as his target. However, unlike Spencer, Sesardic discusses pure social constructionism in some detail. Sesardic claims that he is not arguing against a straw man, that social constructionism "entails that race is not relevant *at all*, i.e. it entails not merely that race doesn't capture the most basic features of human biological diversity, but that it captures no biological features *whatsoever*" (Sesardic, 2013, p. 288; emphases in original). Sesardic argues that the 'pure social constructionist' is not a straw man—that he comes to life!

To this end Sesardic quotes a series of sound bites from authors making statements that the he claims the "ordinary reader" would interpret as supporting pure social constructionism (Sesardic, 2013, p. 287). For instance he quotes Audrey and Brian Smedley claiming that "Race as Biology is Fiction" (Smedley & Smedley, 2005, p. 16). The quote it is taken from the title of Smedley and Smedley's article. The 'extraordinary reader'—the reader who reads beyond the title of the article—will find that the Smedleys are not pure social constructionists. They argue that "racialized science is based on an imprecise and distorted understanding of human differences", not that there are no human differences, or that they are randomly distributed (Smedley & Smedley, 2005, p. 22). As they observe, "Skin color, hair texture, nose width, and lip thickness have remained major markers of racial identity in the United States", which would be impossible if pure social constructionism were true (Smedley & Smedley, 2005, p. 20). Such traits would be useless as markers of conventional racial categories if they were entirely uncorrelated with those categories. This would be obvious to the ordinary reader.

The phrase "biologically meaningless" is also attributed to a number of authors, including Robert Schwartz (2001), and it is interpreted as a sure sign of pure social constructionism. It surprised me that Sesardic would draw on Schwartz's work, since I had shown in the paper he was replying to that Schwartz is no pure social constructionist. Schwartz's (2001) article is about racial profiling in medicine. He argues that "Some geographically or culturally isolated populations can properly be studied for genetic influences on physiological phenomena or diseases", and he observes that diseases occur either in sub-populations within conventional races, or between the so-called races. This argument is inconsistent with pure social constructionism as it implies some minimal correlation between 'race' and certain diseases. It is only by cherry-picking quotes, and taking them away from their contexts, that Sesardic manages to make authors look as if they were pure social constructionists. How little regard he has for his ordinary reader!

It should be noted that Spencer does not name any pure social constructionists, or discuss pure social constructionism in any detail. Also, he puts the word 'pure' in parentheses, which I read as an indication of hesitation. He is right that his preferred versions of racial naturalism can challenge pure social constructionism. He is wrong to imply that this is a view worth debating, which I hope to have shown through common sense arguments and by discussing Sesardic's attempt to bring straw men to life.

Race naturalists need to support a strong version of racial naturalism in order for their view to contrast with anti-realism about biological race. If this is to continue as a debate about the science—and not just the semantics—of human difference, then either weak race naturalists or anti-realists about biological race will have to strengthen their claims. I think that it is the weak race naturalist who needs to budge. Pure social constructionism—the view that weak race naturalists challenge—not only seems to have no serious

adherents, but it is actually absurd. Strong racial naturalism is not absurd, it is just wrong.

Spencer introduces 'intermediate' racial naturalism, yet he still contrasts it with pure social constructionism. This raises an important question. Does he, and other race naturalists for that matter, believe anything about human biology that anti-realists about biological race actually deny? If not, then this really is a semantic debate about the meaning of 'race', and we should put down our scientific journals and pick up some philosophy of language. If we agree about the science, and we could find a way to agree about what 'race' actually means, then maybe we could agree about whether or not there are human races.

3. The three race debates

Spencer offers a tripartite taxonomy of the race debate in order to clarify that racial naturalism takes many forms, and then he uses the resources of two of the race debates he identifies to sketch an argument in favour of racial naturalism. Let us set aside his argument for racial naturalism in this section, and consider the three race debates he identifies.

First, however, it should be noted that there are, of course, many race debates. One could hardly think of a more contentious topic. In the current context 'the race debate' refers to the metaphysical debate about the reality of race. There are three central positions within this debate: race might be biologically real, socially real, or not real at all. We can call these three metaphysical positions racial naturalism, social constructionism about race, and anti-realism about race, respectively. As Spencer correctly observes, racial naturalism and social constructionism are compatible, although social constructionists tend to be anti-realists about biological race. I have not previously distinguished social constructionism from anti-realism about race, but I have been convinced by reading Ron Mallon's (2006) work that this is an important distinction. One consequence of this distinction is that 'pure social constructionism' is an imperfect label for the view that 'race' has no biological correlate because both social constructionists and anti-realists could potentially support this view.

For the purposes of this paper I will not discuss the relative merits of anti-realism and social constructionism about race. Now, to the three forms of 'racial naturalism' that Spencer identifies.

3.1. The philosophical race debate

Spencer describes the 'philosophical race debater' as follows: "A new racial naturalist in the philosophical race debate is a person who uses genetic clusters of human populations to argue that race, as understood by current ordinary folk in the U.S., is biologically real" (Spencer, 2014, p. 41). His only example of a 'philosophical race debater' is Kitcher (1999). However, Kitcher was actually taking part in what Spencer calls the 'biological race debate', as the following quote makes clear: "Rather than starting with our current conceptions of race, with all the baggage they carry, I want to ask how biologists employ the notion of race, and how we might regard our own species in a similar fashion" (Kitcher, 1999, p. 92). Spencer places Kitcher in the philosophical race debate because of Kitcher's use of U.S. Census figures, which Spencer must see as a representation of folk racial taxonomy. However, this is not enough to place him in the 'philosophical race debate'. Kitcher was using Census figures in order to show how a notion of race used in non-human biology might apply to humans. Any support of folk racial taxonomy may have been an upshot of Kitcher's approach, but it was explicitly not his focus. In another article Spencer (2013, p. 247) correctly places Kitcher (1999) in the biological race debate.

Discussing Kitcher's work will not help us understand the 'philosophical race debate', so let's focus on Spencer's characterisation of the debate. Spencer labels the debate as 'naturalistic', but it is unclear why he gives it this label. In the 'philosophical race debate' the nature of race is determined by 'ordinary folk in the U.S.' and science only matters to the extent that they believe it matters. 'Philosophical race debaters' ask whether the science supports folk beliefs about race. If they do, race is biologically real. If they don't, race isn't biologically real. The standard scientific methodologies for identifying biological kinds below the species level are cast aside in the 'philosophical race debate'.

I am not making a case here for scientific naturalism or for semantic deference to science. All I want to point out is that the philosophical race debate is not well characterised as naturalistic. Here we can employ the distinction between racial realism and racial naturalism. Racial realism and naturalism both entail that race, in some sense of the term, exists, but only naturalists reach this conclusion through methodologies that are (supposed to be) consistent with the natural sciences. What Spencer identifies is not well described as a form of naturalism. Rather, it is a form of realism, like social constructionism about race. What Spencer identifies is actually a fourth metaphysical position about race: *realism about folk race*. The folk race realist is the person who thinks that folk beliefs about race are scientifically supported, and that race is therefore biologically real.

It is easy to understand why we might be interested in asking whether folk beliefs about race are supported by science. We tend to give science epistemic authority, so we might want to know whether folk beliefs about 'race' are supported by scientific evidence. But the 'philosophical race debate' as Spencer describes it, which is about the 'biological reality of race', makes little sense to me.

What if it turns out that 'ordinary U.S. folk' believe scientists should ultimately determine whether race is real? If they do, and that belief matters (and why shouldn't it?) then the 'philosophical race debate' would collapse into the biological race debate. Or what if 'ordinary U.S. folk' believe that the reality of race is not something to be determined by scientists? If they do, and that belief matters, then asking whether folk beliefs about race have scientific support is to ignore the very logic of the 'philosophical race debate'. The debate is only coherent if the folk think some of their beliefs about race can be disproved by science, but some cannot. The biological reality of race then hangs on what those particular beliefs are, and whether they find scientific support. I do not understand why we should accept the logic of this debate, if there is indeed a 'philosophical' race debate going on at all.

3.2. The biomedical race debate

Spencer characterises biomedical race realists as follows: "A new racial naturalist in the biomedical race debate is a person who uses genetic clusters of human populations to argue that race, as understood by current ordinary folk in the U.S., is useful in biomedical research and clinical practice" (Spencer, 2014, p. 41). As Spencer describes the debate it is not actually about the reality of race, but rather the usefulness of conventional racial taxonomy in medical contexts. For the debate to be about the reality of race, the debaters would need to take a pragmatic approach to race, according to which race is real if race is useful. We can now introduce a fifth metaphysical position about race: *pragmatism about race*. This is the debate that Kitcher (2007) now thinks we should be having.

I will not discuss the biomedical race debate at length, as it does not play an important role in Spencer's article. Nevertheless, I will

discuss it briefly, partly because of its intrinsic importance, and partly because it in many ways mirrors the biological race debate.

Spencer explains that the debate is about the usefulness of race in a biomedicine. But 'useful' is one of those words, like 'meaningful', which means different things to different people. We need a useful definition of 'useful' in this context. We could employ a weak definition of 'useful', where it means that for some diseases there are correlations between conventional racial categories and disease prevalence. There are certainly some diseases that are correlated with racialised groups, but surely this is not enough to demonstrate the reality of race from a pragmatic perspective. Here we find the same problem as we do with weak racial naturalism. Nobody denies that there are correlations between certain diseases and so-called race—not even the biomedical race realist's favourite foil, Schwartz. Race naturalists label Schwartz as a pure constructionist about medically relevant biological diversity. Not only does this neglect the principle of charity, it neglects the principle of sanity. I certainly hope that there are no doctors out there who, as a consequence of their anti-realism about race, believe that we are all just as likely as each other to suffer from thalassaemia, sickle cell disease, Tay–Sachs disease, and cystic fibrosis!

There are certainly doctors and medical researchers who think of these as 'white diseases' and 'black diseases', but this is a massive simplification of their epidemiology. Diseases do not come neatly packaged according to conventional racial taxonomy. They tend to be either predominantly prevalent in sub-populations within the so-called races or they occur between racialised groups. 'Pure constructionists' are not a part of this debate; they are straw men. The debate is actually between those who think that race is a useful category in biomedical and clinical practice, and those who think more specific categories—such as ancestry—are, when relevant, more useful. Since this is a pragmatic debate, we also need to take into account more general pragmatic considerations, such as the very real risk of stigmatising and stereotyping people by racialising disease. There is also a raised risk of misdiagnosis when crude racial labels are used. Think about it like this: if you were of Middle Eastern, Indian, or Mediterranean origin, and your child was suffering from shortness of breath, fatigue, delayed growth, and jaundiced skin, would you really want her to be diagnosed by a doctor who thinks of sickle-cell anaemia as a 'black disease'?

The biomedical race debate, as Spencer defines it, is not about the reality of race. It is only about the reality of race for the pragmatist about race. Pragmatists should be careful not to let straw men into the debate.

3.3. The biological race debate

Let us return to the biological race debate. Again, I refer to Spencer's definition: "A new racial naturalist in the biological race debate is a person who uses genetic clusters of human populations to argue that humans can be divided into biological races according to a concept of race in use among professional biologists" (Spencer, 2014, p. 41). If we generalise from new racial naturalism we can define the biological race debate as about whether race concepts used in non-human biology can be applied to humans. Obviously some race concepts can be applied to us. This is not the problem for the race naturalist. The problem is semantic. Race naturalists need to convince the rest of us that their preferred race concept is what we *should mean* when we talk about race.

Consider Theodosius Dobzhansky's definition of race: "A geneticist" he wrote, "can define races as populations that differ from each other in the frequencies of certain genes" (1941, p. 162). There are human races using Dobzhansky's definition because there are human populations that "differ from each other in the frequencies of certain genes". In fact, that is a standard geneticist's definition of the term 'population'—which is why I call this race concept 'race-as-population'. Note that Dobzhansky did not attempt to set a threshold above which populations could be understood as races. Dobzhansky recognised that "The obvious flaw in such a definition is that differences in gene frequencies may be quantitatively as well as qualitatively of diverse orders. The statement that two populations are racially distinct really conveys very little information regarding the extent of the distinction" (Dobzhansky, 1941, p. 162). Dobzhansky's struggle to define and defend 'race' is explored in depth in Lisa Gannett's (2013) *Theodosius Dobzhansky and the genetic race concept*.

Now consider the *ecotype* concept, which was introduced in 1922 by Swedish evolutionary botanist Göte Turesson: "The term ecotype is proposed here as [an] ecological unit to cover the product arising as a result of the genotypical response of an ecospecies to a particular habitat" (Turesson, 1922, p. 112). 'Ecotype' has come to be understood as a race concept. Massimo Pigliucci and Jonathan Kaplan (2003) have argued that we can apply the ecotype concept to humans, thereby showing that race is real. Following Turesson's initial definition, they describe ecotypes as ecologically differentiated populations, populations that have adapted to particular environmental conditions. It is uncontroversial that there are such populations in our species.

We know that there are human populations and human ecotypes. The controversy is all about the semantics. It is about whether or not 'population' or 'ecotype' is what we ought to mean when we ask, "Are there human races?" Like Dobzhansky, Pigliucci and Kaplan are aware that their approach flies in the face of what is expected of race. They acknowledge all of the following: (1) ecotypes are not necessarily evolutionary lineages; (2) the same ecotype can evolve independently in different groups; (3) ecotypes will not be discrete units because adaptive variation typically varies continuously in a clinal pattern; (4) each individual will belong to multiple ecotypes or races, not only those who are usually considered 'mixed race'; (5) there will be many more 'races' according to the ecotype approach than are traditionally presumed to exist. Alan Templeton (2013) has also pointed out that there is no objective way of choosing which adaptive traits to racialise on the ecotype approach.

Race-as-population and race-as-ecotype are weak forms of racial naturalism, which need to be defended on semantic grounds. Strong forms of racial naturalism contrast with anti-realism about biological race on matters of a biological nature. Andreasen (1998, 2004) has argued, although not recently, that 'races' are cladistic subspecies. She proposes that races should be understood as monophyletic groups or clades, ancestor-descendent sequences of breeding populations, which all trace back to a common origin. In other words, she believes that races are branches on an evolutionary tree. Note that she argues only that there were races before modernity. She believes that as a result of colonisation and migration the tree has since grown into a trellis.

"Biological races", writes Andreasen, "are supposed to be 'subspecies'—formal subdivisions of a species" (1998, p. 200). It is not a coincidence that as a strong race naturalist Andreasen contrasts her view with a charitable interpretation of anti-realism about biological race that "does not deny the existence of human variation. It merely claims that racial classification is not the best way to understand such variation" (1998, p. 206). The risk with endorsing strong racial naturalism is that it stands a chance of being refuted on empirical grounds. In her article *The Cladistic Race Concept: A Defense* she responds to a number of critiques of her work. Unfortunately, the most pointed critique of her position was slipped into a footnote, which directs the reader to an "opposing view" (Andreasen, 2004, p. 439). The opposing view was actually an empirical refutation by Templeton (1998), a highly respected systematist. Templeton argues that "A tree-like structure among humans has been falsified whenever tested, so this practice [of por-

traying human populations as separate branches on an evolutionary tree] is scientifically indefensible" (Templeton, 2013, p. 262). Templeton may of course be mistaken, but Andreasen has not defended her view against this potentially devastating critique.

Even if there were cladistic subspecies before modernity, this would not be enough to show that they were races. Michael Banton (2010) argues that race, as applied to humans, has a vertical and a horizontal dimension. Its vertical dimension pertains to genealogy and biological inheritance. Its horizontal dimension pertains to biological difference and describes the major divisions within the human species. If it is right to think of race as requiring both of these dimensions, and I think it is, cladistic subspecies may not be well understood as races because "the cladistic concept defines race in terms of a single relational property (genealogy)" (Andreasen, 2004, p. 430). Some genetic difference must be there because it is only through genetic difference that phylogenetic analysis is possible. However, this difference may be of a very small magnitude. As a cladistic subspecies concept this may be fine, but it is a problem to call this a race concept, because we expect race to have not only a historical, genealogical dimension, but also to tell us something about human biological diversity and population structure in the present.

Another strong version of racial naturalism, which nobody holds because it is known to be false, would be the view that there are human races based on the genetic differentiation measures used to define subspecies in non-human animals. The most common of these measures is Wright Fixation Index, or F_{ST}. As Spencer explains, humans "have low F_{ST} values, from 0.05 to 0.15, which is below the conventional lower limit of 0.25 for subspecies identification" (Spencer, 2014, p. 40). There are no human races, according to this approach.

I think it is right to say that the biological race debate, as Spencer describes it, has almost totally run its course. I have discussed four race concepts. The two weak race concepts—race-as-population and race-as-ecotype—can be applied to humans. Then there are the two strong race concepts. We can count out the genetic differentiation approach. While there is still room for a defence of the cladistic race concept, it would need to answer Templeton's (2013) criticism and make a case for race without what Banton calls its 'horizontal dimension'. The biological race debate, as Spencer describes it, can only take us so far. We need to ask which concepts from non-human biology *should* be applied to humans, not only which concepts *could* be.

4. Unnaturalistic racial realism

Spencer's approach to race, to which I now turn, is not well described as weak or strong. He calls it 'intermediate', but it really belies any simple classification. Spencer appeals to Rosenberg et al. (2002) to make his case for racial naturalism, but as I pointed out in the article he reviews, there is no established method for inferring races or subspecies from genetic clustering studies. In lieu of such a convenience I argued that certain conditions—(a), (b), and (c) or (d)—would need to hold before we could seriously consider any inference from genetic cluster to race: (a) there should not be more difference in genetic diversity within one cluster than between that cluster and another; (b) the number of clusters should not be arbitrary; (c) the allele frequencies within a cluster should be relatively homogenous (not too clinal); and (d) there should be a large jump in genetic difference between clusters. I argued that none of these conditions hold in the human case.

Spencer admits "it is hard to imagine how a new racial naturalist in any aforementioned race debate could defend a biological theory of race without his or her classification of race satisfying (a)–(d)" (Spencer, 2014, p. 41). However, he suggests that with "some creativity" a convincing defence of racial naturalism is possible (Spencer, 2014, p. 41). I think Spencer's defence is too creative, and not at all convincing.

Spencer writes that the philosophical race debater "can solve Hochman's "grain-of-resolution problem" [(b)] with ease because the *racial* level of genetic clusters of human populations is just the level that corresponds to what ordinary folk in the U.S. mean by 'race'" (Spencer, 2014, p. 41; emphasis in original). According to Spencer 'ordinary U.S. folk' think that there are five races, so the racial level of clustering is $K = 5$ (shorthand for "five clusters"). This is indeed a creative response: Spencer turns the problem into the solution! In effect, Spencer is asking the folk to answer what is usually understood as a scientific question. What Spencer fails to realise is that this move will only seem legitimate to those deeply embroiled in the 'philosophical race debate'.

Is Spencer really taking the folk seriously? Perhaps the folk think racial taxonomy is ultimately a matter for scientists to decide. Or maybe the folk think that racial taxonomy is meant to be universal. One consequence of Spencer's view, hidden by his exclusive focus on 'ordinary folk in the U.S.', is that because folk racial taxonomy is different in different parts of the world, the philosophical race realist is necessarily a relativist about race. Race might be real in the U.S., but an illusion in Australia. Or race might be real in the U.S. and in Australia, but the racial taxonomies might be different. This could be the outcome when folk taxonomies number the 'races' differently, thus using different grains of resolution. But are the folk relativists about race? I wouldn't have thought so. If not then the whole logical scaffolding supporting philosophical racial realism tumbles down because it is inconsistent with folk beliefs. It would be a problem if 'philosophical race realists' were only interested in folk beliefs when they supported racial realism!

Spencer leaves the 'philosophical race debate' behind and looks to the biological race debate in order to respond to (a), (c), and (d). He asks us to make the following supposition: "Suppose we have enough evidence to identify K = 5 genetic clusters of human populations [as] an actual partition of human populations. . . [this racial partition] is a legitimate biological entity because it is important for explaining the genetic structure that arises in humans at K = 5 that cannot be accounted for by geographic distance alone" (Spencer, 2014, pp. 41–42). Spencer makes much of my comment that race naturalists have been "too hasty" in their racial interpretations of genetic clustering studies. It comes as a surprise that Spencer asks us to make the supposition above. Isn't this a bit hasty?

To demonstrate the possibility that the clusters produced in the Rosenberg et al. study might have been a result of their sampling scheme rather than, as Spencer puts it, an actual partition, I described some interesting findings by Sarah Tishkoff et al. (2009). When Tishkoff and her team set the STRUCTURE program to Spencer's preferred resolution—$K = 5$—three of the five clusters produced were sub-Saharan African. Spencer believes there should only be one sub-Saharan cluster at this grain of resolution. He tries to resolve this by arguing that Tishkoff et al. over-sampled sub-Saharan African genotypes. "African ethnic groups make up 65.1% of Tishkoff et al.'s sample, even though African ethnic groups make up just 30.2% of human ethnic groups" (Spencer, 2014, p. 42). While I do not think ethnic groups are the right sampling units, Spencer makes a good point. Using his logic, however, Rosenberg et al. (2002) massively under-sampled sub-Saharan African genotypes. Only 6 of their 52 populations were sub-Saharan African. At 11.5% of their sample, Rosenberg et al. under-represented sub-Saharan African genotypes to a much greater extent than Tishkoff et al. over-represented them. Whether or not their findings represent actual population partitions is far from settled.

In his argument for racial naturalism Spencer is not worried about the comparatively low levels of human genetic diversity, or by the fact that only a very low amount of that diversity—he says 1.53%—is left unexplained by geographic distance, but is captured by clustering. Nor is he worried by the predominantly clinal pattern of genetic diversity and population structure in our species. Even the fact that "there is more genetic diversity in Black Africans than there is genetic distance between Black Africans and Eurasians" does not make him seriously question his racial naturalism (Spencer, 2014, p. 39). He does not even make the case that 'race' will have much predictive value. Spencer's "biological theory of race that a new racial naturalist could adopt" tells him that race is just "an actual partition of human populations" (Spencer, 2014, p. 41). I am not convinced that $K = 5$ in the Rosenberg study is the last word on the genetic structure of human populations, especially given the low number of sub-Saharan African genotypes they analysed. More importantly, I do not understand why we are meant to think of population partitions as partitioning *races*, rather than populations.

The reason should not be that $K = 5$ resembles a conventionally 'racial' grain of resolution. The 'philosophical race debater' is (apparently) allowed to make this move, but the race naturalist is not. Race naturalists need a biological solution to the grain-of-resolution problem. They need a biological reason for deciding how many races there are. Rosenberg et al. do not give us any reason to consider $K = 5$ as a privileged grain of analysis. They go as high as $K = 6$, and they only move on to their within-continent analysis at that point because multiple clustering solutions appeared for $K = 7$ and above—a consequence, they explain, of working with complex data sets (Rosenberg et al., 2002, p. 1 of *Supplementary information*).

Spencer attempts to solve the grain-of-resolution problem (b) by appealing to the philosophical race debate, and then he responds to (a), (c) and (d) by appealing to the race naturalist's toolkit. But what is the race naturalist's solution to the grain-of-resolution problem? The perceptive reader of Spencer's article will have noticed a sleight of hand taking place. Spencer replaces the philosophical race realist with the race naturalist, and the race naturalist then helps himself to the philosophical race realist's solution to the grain-of-resolution problem. Spencer's race naturalist takes the philosophical race realist's solution—that there are five races because that's what 'ordinary folk in the U.S.' believe—and responds to (a), (c) and (d) as if the race naturalist had some reason for believing that there are five races. But the race naturalist can't ask the folk how many races there are, it is the race naturalist's job to work that out!

5. Conclusion

The usual way to commit to some level of objectivity in the classification of a biological kind below the species level is by adding a trinomial, indicating subspecies status. Like Mayr, Spencer insists that race is subordinate to subspecies. Yet he wants to hold on to race as an objective classificatory category. "No biological kind", he explains, "should have an arbitrary extension" (Spencer, 2014, p. 39). But isn't the point of subordinating race to a level below subspecies to highlight that it is a largely arbitrary form of classification? This is certainly what Mayr was doing by distinguishing the concepts. In his *Of What Use Are Subspecies*? Mayr described how "it became clear that the subspecies was not a concept of evolutionary biology but simply a handle of convenience for the clerical work of the museum curator" (Mayr, 1982, p. 594). This raises an important question. If subspecies is a handle of convenience for the museum curator, who is race a category of convenience for?

Spencer does not think race is a category of convenience because he does not think it has an arbitrary extension. But what gives racial classification its objective status, according to Spencer? Here he seems to stumble. He leans on the intellectual hegemony of the 'philosophical race debate'. According to the logic of this debate 'race' is granted biological reality when folk beliefs about race find scientific support. Spencer believes that 'ordinary U.S. folk' think there are five races, and so the racial level of analysis on a clustering study is $K = 5$. This is Spencer's solution to the grain-of-resolution problem. Because it is a non-scientific solution to what is generally considered a scientific problem, Spencer offers us an unnaturalised racial naturalism.

We clearly need more ground rules for this debate. Spencer attempts to solve other problems for racial naturalism from a naturalistic perspective, but he helps himself to the folk solution that there are five races, without giving any biological reason for this being the 'racial' level of analysis. He asks us to suppose that the five clusters at $K = 5$ in the Rosenberg study represent actual population partitions. Here we have a disagreement about the science, as I think that those clusters were a product of a far from perfect sampling scheme. However, it would be a mistake to focus too much on this kind disagreement. It draws us away from our much more fundamental disagreements, which are semantic. For the main part, Spencer counters my arguments against the reality of race by endorsing a weakened definition of racial naturalism.

According to Spencer race "is a valid biological entity that is useful for explaining cryptic genetic structure in the human species" (Spencer, 2014, p. 42). I would have put it the other way around: that cryptic genetic structure is supposed to explain why we have races. Anyway, the problem here is that Spencer presents us with what seems like an ad hoc solution to the race debate. Spencer writes that "it is unnecessary for clusters of populations to be useful for representing genetic variation in a species in order to be meaningful biological units, for they could be useful for understanding population structure" (Spencer, 2014, p. 42). But how does Spencer get from population structure to race? Sometimes a population partition is just a population partition.

Let me clarify where I think this debate needs to be heading. We need to try to settle the few remaining disputes about the science, to work out what role is given to 'ordinary folk' in the debate, and, most importantly, we need to try to come to some agreement about what we mean by 'race'. Race naturalists are acknowledging that strong racial naturalism is not supported by the relevant science, and they are falling back on weak definitions of race that need to be defended on semantic grounds. For instance Sesardic writes, "In principle we might introduce names for hundreds or even thousands of human groups that we could call races on the grounds of their genetic differentiation" (Sesardic, 2013, p. 290). This is a very weak form of racial naturalism, of the race-as-population variety.

To an extent, Spencer is part of this movement away from substantive racial naturalism. But he is sensitive to the risk of trivialising race, and so endorses an intermediate view. If Spencer wants to retain his membership as a race naturalist, he will need to defend his intermediate view using a methodology that is consistent with the natural sciences. Alternatively, he could defend folk realism about race, although I find the motivation of this position unclear. Another option remains. Spencer could endorse anti-realism about biological race. I hope to have gone some way in convincing him of its virtues.

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