

# Against a Radical Solution to the Race Problem

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## *Abstract*

In this paper I reconstruct Spencer (2014)'s argument supporting the conclusion that 'race', in its current U.S. meaning, is a rigidly designating proper name for a biologically real entity, specifically for the partition at the  $K = 5$  level of human population structure. Then, I object to the argument by contesting three distinct key assertions in it. First, I contest the assumption that if a term  $t$  has a logically inconsistent set of identifying conditions but a robust extension, then it is appropriate to identify the meaning of  $t$  as just its referent. Second, I contest the thesis that 'race', in its current U.S. meaning, is a rigidly designating proper name for a specific set of five race categories. Third, I contest the thesis that the partition at the  $K = 5$  level of human population structure that Spencer identifies with the human population continental distribution, or 'the Blumenbach partition' as Spencer calls it, is biologically real in the sense Spencer needs. If even only one of my objections is convincing, Spencer's "radical solution to the race problem" is seriously undermined.

*Keywords:* Race, Racial classification, Census races, Human population structure, Biologically real.

## 1. Spencer's Argument

In his 2014 paper entitled "A Radical Solution to the Race Problem", Quayshawn Spencer claims to debunk the common view that folk racial classification has no biological basis. His argument is intended to show that the following conclusion is true:

*The Radical Solution:* 'Race', in its current U.S. meaning, is a rigidly designating proper name for a biologically real entity, specifically for the partition at the  $K = 5$  level of human population structure.

What Spencer is referring to is the "geogenetic map" one can obtain by using a software like STRUCTURE, which investigates population structure by using multi-locus genotype data. The five unambiguous genetic clusters obtained for  $K = 5$  ( $K$  being the number of clusters individuals are divided into, which is arbitrarily chosen in advance to each run of the algorithm) do correspond largely to the

five major geographic regions of our planet (Rosenberg et al. 2002), or—as Spencer calls it—to “the Blumenbach partition”, that is, J.F. Blumenbach’s anthropological division of humankind. So, the core idea in *The Radical Solution* is that the term ‘race’, in its current U.S. meaning, refer to a biologically real and unambiguous genetic classification of human population.

We can reconstruct Spencer’s argument in favour of *The Radical Solution* as such:

- (1) *Definition*: The national meaning of a term is the widest used meaning of that term in a nation that is also used by a majority of its citizens.
- (2) The meaning of a term in a nation is the national meaning of that term in that nation.

From (2) we obtain:

- (3) The U.S. meaning of ‘race’ is the national meaning of ‘race’ in the U.S.

Now,

- (4) *Definition*: ‘Racial discourse’ (or ‘race talk’) is the discourse involving the use of ‘race’ to classify humans into subgroups.
- (5) No racial discourse in the U.S. is more widely used than Census racial discourse (“on college applications, scholarship and fellowship applications, job applications, mortgage loan applications, birth certificates, and so forth” (Spencer 2014: 1027)).

So, in virtue of (1) and (5):

- (6) The national meaning of ‘race’ in the U.S. is the meaning of ‘race’ in the U.S. Census racial discourse.

From (3) and (6) one can deduct that:

- (7) The U.S. meaning of ‘race’ is the meaning of ‘race’ in the U.S. Census racial discourse.

Which is, then, the meaning of ‘race’ in the U.S. Census racial discourse? According to Spencer, “there is no single, logically consistent set of identifying conditions that Americans associate with ‘race’ in Census racial discourse”. Still, he says, “there is a robust extension associated with Census racial discourse” (Spencer 2014: 1028), because the Office of Management and Budget (OMB) clearly states in its documents that race is not a kind or a category, and is rather a set: {Black, White, Asian, American Indian, Pacific Islander}.<sup>1</sup> This set has exactly five members and is “comprehensive”. Americans converge on the same extension of ‘race’ because they semantically defer to the OMB as linguistic experts about the referent of ‘race’, and they know very well how to pigeonhole not only themselves but also others into the five Census races. So,

- (8) The referent of ‘race’ in the U.S. Census racial discourse is {Black, White, Asian, American Indian, Pacific Islander}.

Now, according to Spencer we can assume:

- (9) *Meaning-as-just-the-referent Assumption*: If, by using appropriate evidential methods (e.g., controlled experiments), one finds that a term *t* has a

<sup>1</sup> See document 97-28653 of the federal register by the Office of Management and Budget (OMB).

logically inconsistent set of identifying conditions but a robust extension, then it is appropriate to identify the meaning of *t* as just its referent.

But if this is true, then:

- (10) The meaning of ‘race’ in the U.S. Census racial discourse is {Black, White, Asian, American Indian, Pacific Islander}.

In virtue of (7) and (10) we have:

- (11) The U.S. meaning of ‘race’ is {Black, White, Asian, American Indian, Pacific Islander}.

Now, if one partitions appropriate genetic data from a sample that is representative in terms of geographic distribution, genetic variation, genetic admixture and so on, the  $K = 5$  partition—that Spencer calls ‘the Blumenbach partition’—is a partition of human populations that matches {Black, White, Asian, American Indian, Pacific Islander}. According to Spencer, the explanation of this fact is quite simple:

- (12) {Black, White, Asian, American Indian, Pacific Islander} is the Blumenbach partition.

In favour of (12), Spencer offers three kinds of evidence. First, “the extensional overlap between current extensions of U.S. race terms and Blumenbachian population terms are statistically significant and high” (Spencer 2014: 1031). Second, “the definite descriptions Americans use to pick out U.S. races also pick out unique Blumenbachian populations; furthermore, *why* those descriptions work as well as they do to pick out U.S. races can be explained by the historical essences of Blumenbachian populations along with a few facts about human evolutionary history” (Spencer 2014: 1031). Third, “counterfactual evidence [...] supports the claim that U.S. race terms are just aliases for Blumenbachian populations” (Spencer 2014: 1032).

From (11) and (12) we obtain that:

- (13) The U.S. meaning of ‘race’ is the Blumenbach partition.

According to Spencer, “since the Blumenbach partition is useful for explaining a portion of human genetic variation, and since our evidence for this comes from well-executed human genetic clustering studies in population genetics” (Spencer 2014: 1036), it is true that:

- (14) The Blumenbach partition is biologically real.

From (13) and (14) it follows that:

- (15) *Spencer’s Thesis*: ‘Race’, in its U.S. meaning, picks out a biologically real entity. *Quod erat demonstrandum*. The argument, as a whole, supports *The Radical Solution*.

In the following sections of the paper, I try to reject the argument by rejecting some of its crucial steps. In section 2 I contest (9); in section 3 I contest (11); and in section 4 I contest (14). If even only one of my objections is convincing, we have reasons to reject Spencer’s argument in favour of *The Radical Solution*.

## 2. Contesting the *Meaning-as-Just-the-Referent Assumption*

No matter how commonsensical it may appear, it is possible to show that (9) is severely defective. To achieve this goal, I make appeal to an argument by analogy. Imagine that a new revolutionary biotechnology *B* becomes available, and that people start employing a new term, ‘*B* justice’, to mean the morally correct way

for human beings to relate to *B*. Suppose that there is an intense debate about what *B* justice amounts to, and that there is no single, logically consistent set of identifying conditions for *B* justice on which all the people converge. Imagine, however, that all the people happen to identify the same set of actions performed by the same kind of subjects as the extension of ‘*B* justice’. For example, suppose such unanimously identified extension to be this:

*Unanimous extension of ‘B justice’*: *B* is only used by individuals sharing property *S*. *S* individuals use *B* the way they prefer. Non-*S* individuals do not use *B*.

The fact that all the people agree about this extension of the term, however, is merely accidental, because the reasons why they do so vary greatly. Consider, for example, the following groups expressing their own reasons for converging on the *Unanimous extension*:

*Group 1*: When *B* is used by *S* individuals, no one is harmed. On the contrary, when *B* is used by non-*S* individuals, it is possible that someone is harmed.

*Group 2*: Using *B* has a collective cost. Just *S* individuals merit a particular treatment, therefore they only are entitled to use *B*.

*Group 3*: Using *B* is dangerous for those who use it. *S* individuals are abject, so we should not worry about their destiny.

*Group 4*: If *B* is used, *T* individuals will be harmed. But *S* individuals, who only are interested in using *B*, have the right to harm *T* individuals.

*Group 5*: *B* benefits *S* individuals while it is useless for all the others. Thus, only *S* individuals should be allowed to use *B*.

*Group 6*: All those who desire to use *B* should be free to do so. *De facto*, only *S* individuals desire to use *B*.

It would be hard to argue that all the six groups attribute the same meaning to the term ‘*B* justice’. For one thing, while Group 1 believes that a necessary condition for *B* justice to be instantiated is that no one is harmed, Group 3 considers *B* justice to be consistent with certain categories of individuals harming themselves, and Group 4 even believes that it is admissible for some categories to consciously harm others. But if the meanings the six groups attribute to the term are different despite its extension being the same, then (9) is to be rejected. In particular, it must be rejected in the ‘race’ case either, because—as Spencer admits—Americans differ greatly on what are the relevant criteria for classifying people into races. For example, Glasgow, Shulman, and Covarrubias (2009: 28) found 45.7% rejection (and 54.3% acceptance) of ancestry, 52% rejection (and 48% acceptance) of visible phenotype, and 51.1% rejection (and 48.9% acceptance) of social relations as relevant for classifying people into white or black race.

One could object that, in the case of the term ‘race’ in the US, things are different, because the general agreement on the same extension is not accidental as in the ‘*B* justice’ case. According to Spencer, as we have seen, Americans agree on the extension of ‘race’ because they semantically defer to the OMB as linguistic experts about the referent of ‘race’.

But even if we concede that this is the case, this is not sufficient for asserting that Americans agree about the referent of ‘race’ not accidentally. For, even if they unanimously accepted ‘race’ to refer to {Black, White, Asian, American Indian, Pacific Islander}, they should probably be described as disagreeing about the referent of ‘race’ if they disagreed about the referent of ‘Black’, ‘White’, ‘Asian’, ‘American Indian’, and ‘Pacific Islander’, singularly taken. As a matter

of fact, however—Spencer argues—Americans do agree about the extensions of ‘Black’, ‘White’, ‘Asian’, ‘American Indian’, and ‘Pacific Islander’, too, because they agree about “how to pigeonhole not only themselves but also others into Census races” (Spencer 2014: 1027; but see next section for evidence to doubt about this):

For example, over the years, social scientists have been able to show that Americans can predict other Americans’ self-identified Census race at rates well above chance using phonetic cues alone (e.g. African American Vernacular English), surnames alone (e.g. ‘Chen’), first names alone (e.g. ‘Lakisha’), and visual cues alone (e.g. a person’s face) (Purnell et al. 1999; Fiscella and Fremont 2006; Bertrand and Mullainathan 2004; Hourihan et al. 2012) (Spencer 2014: 1027).

But how is it that Americans agree about what are the individuals to be classified under ‘Black’, ‘White’, ‘Asian’, ‘American Indian’, and ‘Pacific Islander’, respectively, if they disagree on what are the relevant criteria for classifying people into races? We may appeal to a special racial classificatory intuition; or we may think that all the “logically inconsistent set of identifying conditions” (Spencer 2014: 1026) miraculously happen to pick out the same individuals into each of the five racial classes. In any case, the fact that Americans agree about the extension of ‘Black’, ‘White’, ‘Asian’, ‘American Indian’, and ‘Pacific Islander’ is not explained at all by Spencer—and this means it is offered as accidental. True, one could object that agreement is not accidental, because those who use ancestry as a relevant criterion for how to racially classify people agree non-accidentally with those who use visible phenotype, if in fact ancestry and visible phenotype are well aligned for historical biological reasons. But here the point is that ancestry and visible phenotype—as any other couple of rival criteria—are not *de facto* so well aligned. For example, skin coloration—which has evolved independently of any other trait—is highly adaptive and prone to change, has been modified more than once in human evolution, and “is of no value in determining phylogenetic relationships among modern human groups” (Jablonski and Chaplin 2000: 57).

Thus, the grounds for rejecting the analogy with the ‘*B* justice’ case sketched above amount to this: while the agreement on the same extension is completely accidental in the ‘*B* justice’ case, it is just partly non-accidental in the ‘race’ case in that Americans agree about what are the determinates of ‘race’ by semantically deferring to a government agency. Is this enough for rejecting the analogy with the ‘*B* justice’ case sketched above and concluding that (9) is appropriate in the ‘race’ case?

I claim it is not. For imagine that in the ‘*B* justice’ case, too, the specification of the concepts in terms of which the extension of the original term is to be determined is fixed by a government agency to which people defer. That is, imagine that the fact that the six groups converge on the *Unanimous extension* is partly motivated by the fact that they all unanimously accept, say, the National Commission of Biotechnology’s opinion that the only relevant situations to be detected for determining whether *B* justice is instantiated or not are whether *S* individuals use *B* or not, and whether non-*S* individuals use *B* or not. Also in this case, it seems to me that we would say that the six groups attribute very different meanings to the term ‘*B* justice’, in spite of their agreeing (in part accidentally and in part non-accidentally) about its extension.

Thus, *The Meaning-as-just-the-referent Assumption* as employed by Spencer in his argument can be seriously questioned.

### 3. Contesting the Thesis that the U.S. Meaning of ‘Race’ Is {Black, White, Asian, American Indian, Pacific Islander}

(11) is an important lemma in Spencer’s argument. I think, however, that embracing (11) is highly problematic. To see why, we must reflect on the perspective of changes in the way of collecting race data in the U.S.

It is a fact that the Census Bureau, the OMB and other agencies recently developed a proposal of changes to the current standard for collecting racial data. The proposal has been released for public comment in January 2023, and final decision is expected in 2024. The necessity to propose new standards is due primarily to concerns about the increasing number of people skipping the race question or choosing the ‘some other race’ option, which had been introduced in 2005 in the decennial census and the Census Bureau’s American Community Survey to offer an appropriate option to individuals who do not recognise themselves in any of the five proposed race categories. In the 2020 census, about 50 million U.S. citizens have chosen ‘some other race’ rather than any of the five proposed races. “When the residual category is the second-largest response group, changes need to be made”, commented Merarys Rios-Vargas, the chief of the ethnicity and ancestry branch of the Census Bureau’s population division (Agiesta 2023).

According to the proposal, people should be asked to racially self-identify on the basis of seven categories: White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, and Native Hawaiian or Pacific Islander. To understand the advantages of the change, we must consider that, for example:

Under the existing standard, respondents of Middle Eastern or North African, or MENA, descent were typically considered racially White. Census Bureau research conducted in 2015 (United States Census Bureau 2015) suggested that without a distinct MENA category, roughly 12% of people who otherwise had been identified as MENA chose “some other race,” but that dipped to just 3% with the addition of a separate MENA category (Agiesta 2023).

A first consideration is that (11) appears highly questionable, given that in the 2020 U.S. census ‘some other race’ was the second-largest racial group. Even if eight out of ten Americans spontaneously refer to {Black, White, Asian, American Indian, Pacific Islander} when asked to describe their race in their own words, about five out of ten think that the current census question does not reflect “very well” how they see their own race and origin (Cohn, Brown and Lopez 2021: 3). If about half of the citizens of the U.S. feel that their own racial classification is not appropriately reported when they try to fit within the five OMB race categories, then it is hard to claim that the U.S. meaning of ‘race’ is just the set of those five categories.<sup>2</sup>

<sup>2</sup> A similar point has been made by J. Glasgow as well as by S. Haslanger. According to Glasgow (2019: 253), the mere fact that the government agencies *consider* how to improve the census options means that “they defer to ordinary usage, not the other way around”. In the same vein, Haslanger (2019: 155) says that “because the OMB seeks input from and

But an interesting question arises: would Spencer's argument be threatened by a scenario in which the proposed changes are accepted? Of course, (8) would become false, and it would instead become true that:

- (16) The referent of 'race' in the U.S. Census racial discourse is {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander}.

This would cause (10) and (11) to become false, too. From (16) and (9) we would obtain:

- (17) The meaning of 'race' in the U.S. Census racial discourse is {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander}.

And, from (7) and (17) we would obtain:

- (18) The U.S. meaning of 'race' is {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander}.

(17) and (18) would substitute (10) and (11), respectively. So, the problem is whether one could go from (18) to (15).

For sure, {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander} is not the Blumenbach partition. So, one cannot go from (18) to (15) through (12)-(13)-(14).

But the (apparently) good news is that there are many ways to partition human population for each specific value of  $K$ , and each is no less 'biologically real' than the Blumenbach partition (see next section). With a little luck, Spencer could save his *Radical Solution* just by changing " $K = 5$ " to " $K = 7$ ", because some partition for  $K = 7$  might match the new referent of 'race' in the U.S. racial discourse.

So far so good. It may seem that there would be no further problem affecting Spencer's argument. But is this true? I believe it is not. For, if we think what the consequences of the *current* truth of (11) would be in the possible worlds in which the changes to the current standard for collecting racial data were accepted (and in which (11) would have become false, as said), we can easily see that they are so untenable that the current truth of (11), as long as Spencer's *Radical Solution*, are jeopardised. Let me explain why.

According to Spencer, (11) is currently true because 'race' currently rigidly designates {Black, White, Asian, American Indian, Pacific Islander} in the U.S. In Spencer's own words:

Even though 'race' looks like a kind term, its current use in U.S. racial discourse is that of a proper name. It is a term that rigidly designates a particular set of "population groups". This means that race is a particular, not a kind (Spencer 2014: 1028).

Now, according to a shared view of rigid designation, a rigid designator designates the thing it actually designates in all possible worlds in which that thing exists and designates nothing in all possible worlds in which that thing does not

defer to the general population about what race is in setting up its categories, it is hard to claim also that it is functioning as the expert".

exist (Kripke 1980). Now, if (11) is true, what ‘race’ does ultimately designate is the Blumenbach partition, as acknowledged by (13). But, even after that the proposed changes were introduced, the Blumenbach partition would continue to exist as ‘biologically real’ and (14) would remain true. Thus, ‘race’ should be deemed as continuing to rigidly designate the Blumenbach partition independently of the changes.

If we are asked to accept that, if the changes were introduced, ‘race’ would stop designating the Blumenbach partition and would start to designate another partition instead, we are asked to accept that ‘race’ is not a rigid designator. But if ‘race’ is not a rigid designator nor a proper name, (11) is currently false. So, either Spencer’s argument cannot properly account for the changes, or (11) is currently false.

This conclusion can be reinforced if one evaluates how unsound are attempts to reconcile the current truth of (11) with a coherent treatment of the scenario in which the changes are introduced.

One possibility is trying to save the thesis that ‘race’ is a rigid designator of {Black, White, Asian, American Indian, Pacific Islander} by saying that it would continue to designate {Black, White, Asian, American Indian, Pacific Islander} even after the changes. Yet another ‘race’ term—which would be homographic to the former, and which we will label ‘NEW ‘race’ here for the safe of clarity—would be introduced that would have a different referent by rigid designation and therefore a different meaning, and whose meaning would become the new U.S. meaning of ‘race’. In consequence, (11) would become false and, nonetheless, (18) would not become true. Because what instead would become true is rather:

- (19) The U.S. meaning of NEW ‘race’ is {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander}.

Note that (19) is not incompatible with (OLD) ‘race’ continuing to mean what it meant when (11) was true, that is, {Black, White, Asian, American Indian, Pacific Islander}.

A different possibility is assuming that the introduction of the changes would be the official stipulation made by the OMB experts that the referent of ‘race’ ceases to be one set and starts to be another set—just like if some other recognised experts said that ‘Fabio Bacchini’ ceases to be the proper name of the person who has written the present line and starts to be the proper name of the person who has sold him three pears ten minutes before.

In any case, however, efforts to develop any discourse about race more comprehensive than (i) those presupposing that the meaning of ‘race’ is {Black, White, Asian, American Indian, Pacific Islander}, and (ii) those presupposing that the meaning of ‘race’ (or, of NEW ‘race’) is {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander}, would be foolish.

So, for example, it would be nonsensical to arise the question whether the new census standard capture better the racial makeup of the country. For, there is no meaning of ‘race’ beyond the set it meant before the changes (and that according to the first explanation (OLD) ‘race’ continues to have) and the set it means afterwards. Thus, all we can say is that, by definition, the old standards perfectly fit the old meaning, and the new standards perfectly fit the new meaning. There is no room for assigning sense to any of the sentences expressing the



concerns that have brought the Census Bureau, the OMB and the other agencies to the changes proposal.

In like manner, although a person self-classifying as Black before the changes might believe to self-classify *the same way* when self-classifying as Black after the changes, this would be doubly illusory.

First, the ‘Black’ category within the old set would not be the same as the ‘Black’ category within the new set. The extension of each category is determined by its differential relations to the others, and the categories surrounding ‘Black’ are different in the two sets.

Second, and more radically, ‘Black’ before the changes and ‘Black’ after the changes would not be the same category of categories, that is, categories of the *racial* kind. For, there would be no way of acknowledging that they share the common property of being *racial* categories other than by saying that they are categories of two homonymous different sets. If you say, with Spencer, that ‘race’ just looks like a kind term, but is actually a proper name, then comparing sentences in which the term ‘race’ appears and is used as the name of a specific set with sentences in which the term ‘race’ appears and is used as the name of another different set is just getting confused with homonymy. Classification before and after the changes are two completely different classifications, and there is nothing “racial” they have in common but the name—just like me and the fruit seller would have nothing “Fabio-Bacchinia!” in common but the name ‘Fabio Bacchini’ in case the relevant authorities decided that my proper name ceases to be my proper name and becomes the proper name of my fruit seller. So, even a category that by hypothesis would not have changed anything in its extension—as perhaps the category of ‘Pacific Islander’ alias ‘Native Hawaiian or Pacific Islander’—would not actually survive the changes; consequently, no individual self-identifying Pacific Islander before as well as after the changes could truly assert that they continue to racially self-identify the same way.

These troubles with accounting for a scenario in which changes to the current standard for collecting racial data are introduced are all unsustainable consequences of considering ‘race’ as a rigid designator. If the view that ‘race’ is a rigid designator is put in jeopardy, (11) and *The Radical Solution* are consequently undermined.

#### 4. Contesting the Thesis that the Blumenbach Partition Is Biologically Real

Spencer’s argument relies on the truth of (14). However, (14) can be importantly questioned. The main point here is that different computer programs produce unmatching sets of human clusters, and even the same software leads to different outcomes if we vary the modelling assumptions, the values assigned to the parameters, the genomic data and sampling used, and so on. For example, if one samples more heavily than Rosenberg et al. (2002) from Sub-Saharan African populations, which display more genetic variability than all other populations in the world combined, the clusters obtained for  $K = 5$  are completely different (Tishkoff et al. 2009; Nielsen 2022). There are better and worse sampling regimes for different purposes, but none can be said to be the best one to capture divisions in

general. Asking which is the best sampling regime *in general* is simply not a legitimate question. The same holds for any other choice about the settings.<sup>3</sup>

Since all these choices are completely arbitrary, we should suspect that we are unwittingly selecting the settings which best confirm our cultural expectations concerning which are the “real” human biological groups. Consider, in particular, the setting corresponding to  $K = 5$ . Running the algorithm for  $K = 5$  rather than for any other value is totally up to us. It is true that there is an apparently objective way to establish which value of  $K$  is the best for a specific data set, that is, to choose the value of  $K$  that maximises the posterior distribution  $\Pr(K|X)$ . But Deborah A. Bolnick (2008) has shown that determining which value of  $K$  maximises  $\Pr(K|X)$  is extremely problematic for a number of independent reasons: to tell one, different runs of the software may easily produce very different outputs, and this can be explained by there being different optimal clustering schemes, each possibly yielding contrasting values for  $\Pr(K|X)$ .

So, we have no ground for concluding that the genetic clusters obtained for  $K = 5$  are “more objective”, or “more real”, than any of the unmatching genetic clusters belonging to sets obtained for  $K = 2$ ,  $K = 7$ ,  $K = 20$ , or any other value. Indeed, Rosenberg and colleagues did obtain on various occasions very high and very low  $\Pr(K|X)$  for different replicates of the same value of  $K$ , and even the highest  $\Pr(K|X)$  for a replicate of a value of  $K$  (16) whose other replicates were associated to quite low  $\Pr(K|X)$  (Bolnick 2008).

In light of this, we cannot say that any set of clusters is to be preferred to any other. Sure, the set obtained for  $K = 5$  seems to correspond to the set of continental populations we mostly have in mind when we talk of races. But we should resist the temptation of reification—just as we should resist the temptation to consider as “the real spot” the spot looking from which the tangle of branches of the tree growing on my mother’s grave visually appears as my mother’s face.

At this point, we have just two possibilities. Either any alternative set obtained using any possible statistical method is biologically real, or none is. In the latter case, (14) is evidently false. Even in the former case, however, (14) can be interpreted as seriously jeopardised. For, as Spencer admits at the beginning of his paper, the sense in which he wants to prove (15) is one on the basis of which statements such as the following are false:

(20) “There are no biological races, only man-made races” (Root 2000: 32);

(21) “We know enough about race to be quite confident that races will not turn out to be significant biological kinds” (Dupré 2008: 52).

But if the sense in which ‘race’, in its U.S. meaning, picks out a ‘biologically real’ entity is the sense in which the Blumenbach partition is ‘biologically real’, and if the latter is the very minimal sense according to which all the countless and reciprocally inconsistent partitions of human populations are ‘biologically real’, then concluding (15) may be not sufficient to dismiss (20) and (21). For, these countless and reciprocally inconsistent partitions of human populations—which, ontologically speaking, must all be considered as standing on the same ground—can hardly all be considered as “significant biological kinds”; and, since almost any possible partition can be obtained by opportunely varying the different settings of the software, they may seem even more “man-made” than “biologically real”.

<sup>3</sup> I thank the anonymous reviewer for useful suggestions on this point.

In other terms, even if (14) is taken as true, the sense in which it is true seems too weak to serve the role required for (14) in Spencer's argument. Spencer would need (14) to be true in the sense that the Blumenbach partition is more biologically real than any alternative partition. However, under this interpretation, (14) is false.

Spencer (2019a: 94-103) has argued that the Blumenbach partition is biologically real in a sense that possibly entails that the Blumenbach partition is more biologically real than any alternative partition. His idea is that an entity is biologically real if it is useful for generating a specific theory that explains or predicts an observational law in an empirically successful biological research program; and, the Blumenbach partition is actually useful for generating a specific theory that explains or predicts an observational law in population genetics, which is an empirically successful research program in biology. What is the theory, and what is the observational law? The theory that the Blumenbach partition is useful for generating is the theory that the set of the Blumenbach partition is the partition at the  $K = 5$  level of human population structure, and the explained observational law is that the partition at the  $K = 5$  level of human population structure largely correspond to a geographical distribution. But again, if this is all we have for releasing the title of 'biologically real' to the Blumenbach partition, then it seems we will have no problems with releasing the same title to any human population subdivision we may want to trace that matches one of the countless partitions of human population structure for some value of  $K$ , for any such subdivision can be used for generating a theory predicting or confirming the observational law that that partition corresponds to the subdivision. For instance, the subdivision {White, Hispanic or Latino, Black or African American, Asian, American Indian or Alaska Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander} resulting from the proposal of changes to the current standard for collecting racial data advanced by the Census Bureau, the OMB and other agencies, provided that it matches at least one of the many partitions that one can obtain at the  $K = 7$  level of human population structure, can be used to generate a theory that explains or predicts the observational law that that partition at the  $K = 7$  level largely correspond to the distribution proposed by OMB on the basis of a number of criteria. Again, this sense of 'biologically real' seems too weak to serve the role needed to fully support *The Radical Solution*.

## 5. Conclusions

I have shown that Spencer's argument supporting *The Radical Solution* has some important weak spots. I have objected to the *Meaning-as-just-the-referent Assumption* by recurring to an argument by analogy. Then, I have objected to the thesis that the current U.S. meaning of 'race' is {Black, White, Asian, American Indian, Pacific Islander} by showing how unsatisfactory are the consequences of that thesis if we must account for a scenario in which OMB introduces some changes in the census race categories. Finally, I have objected to the claim that the Blumenbach partition is 'biologically real' in a sense strong enough to support *The Radical Solution*. What I have shown, then, is that Spencer's argument is highly questionable, and we should reject *The Radical Solution*.

We may just add that (11) seems to entail that a non-American competent English speaker ignoring the nature of the U.S. census racial discourse cannot have a genuine conversation about race with an American, since the meaning of 'race' in the utterances of the former cannot be the U.S. meaning of 'race'

expressed by (11). After all, (4), (7), and (10) seem to imply that a racial discourse in the U.S. necessarily involves the use of a term, ‘race’, whose meaning is the meaning it has in the U.S. Census racial discourse, that is, {Black, White, Asian, American Indian, Pacific Islander}; therefore, those who do not assign that meaning to the term, and ignore their American interlocutors do so, can hardly develop any piece of an authentic and meaningful racial discourse with them. I take this to be a further untenable consequence of the lemmas contained in Spencer’s argument. It must be said that Spencer (2019a; 2019b), which is an alternative formulation of the argument, seems to have abandoned (6), (7), and (11), and less ambitiously claim that ‘race’ in its meaning in OMB race talk, which is just one of the ordinary race talks in the U.S., picks out a biologically real entity. In Spencer’s (2019b: 213) own terms, “the OMB’s meaning of ‘race’ is *one* dominant meaning of ‘race’ among American English speakers, but not the only one, because there is no such thing as the only one”.

By acknowledging that there are other ordinary race discourses in the U.S. other than the OMB race discourse, Spencer seems to drop the idea that the national meaning of ‘race’ in the U.S. is the meaning of ‘race’ in the U.S. Census racial discourse and its implications. Therefore, some of the objections to the argument that are objections to (11) can be put aside.<sup>4</sup> But, of course, it becomes more disputable whether the new version of the argument supports any “radical solution to the race problem”, since it presupposes that we do not cease to be uncertain about whether ‘race’, in the meanings it has in many other ordinary race discourses in the U.S., picks out any biologically real entity. And a conclusion that leave you so uncertain can be said no longer a “radical solution to the race problem”. In any case, my objections to the *Meaning-as-just-the-referent Assumption* and to the thesis that the Blumenbach partition is biologically real continue to hit the new version of the argument as well.

#### References

- Agiesta, J. 2023, “The Government Wants to Change How It Collects Race and Ethnicity Data: Here’s What You Need to Know”, CNN Politics, 16 April 2023, Taken From the Web, <https://edition.cnn.com/2023/04/16/politics/race-ethnicity-standards-change-census/index.html> (accessed 7 August 2023).
- Bertrand, M. and Mullainathan, S. 2004, “Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination”, *American Economic Review*, 94, 991-1013.
- Bolnick, D.A. 2008, “Individual Ancestry Inference and the Reification of Race as a Biological Phenomenon”, in Konig, Soo-Jin Lee, and Richardson 2008, 70-85.

<sup>4</sup> I can understand Glasgow (2019) when he objects to Spencer that one of the consequences of his view is that Americans cannot genuinely dialogue with people that use other sets of categories, nor can they evaluate opinions about race developed before OMB recognised the five races set in 1997, not even if these opinions have been developed by their earlier selves. However, Glasgow does not consider that if one party knows that the other one is attributing to a key term a different meaning, and knows what that meaning is, it is not necessary that the two parties turn out talking past each other. More importantly, since the target of Glasgow’s critical observations is exclusively Spencer (2019a), it seems to me that he fails to acknowledge that Spencer (2019a) concedes that there are other ordinary race discourses in the U.S. other than the OMB race discourse.

- Cohn, D., A. Brown and M.H. Lopez 2021, "Black and Hispanic Americans See Their Origins as Central to Who They Are, Less So for White Adults", Pew Research Center Report, <https://www.pewresearch.org/social-trends/2021/05/14/only-about-half-of-americans-say-census-questions-reflect-their-identity-very-well/> (accessed 7 August 2023).
- Dupré, J. 2008, "What Genes Are, and Why There Are No Genes for Race", in Konig, Soo-Jin Lee, and Richardson 2008, 39-55.
- Fiscella, K. and Fremont, A. 2006, "Use of Geocoding and Surname Analysis to Estimate Race and Ethnicity", *Health Services Research*, 41, 1482-1500.
- Glasgow, J. 2019, "Glasgow's Reply to Haslanger, Jeffers, and Spencer", in Glasgow, Haslanger, Jeffers, and Spencer 2019, 245-73.
- Glasgow, J., Haslanger, S., Jeffers, C., and Spencer, Q. 2019, *What Is Race? Four Philosophical Views*, New York: Oxford University Press.
- Glasgow, J., Shulman, J., and Covarrubias, E. 2009, "The Ordinary Conception of Race in the United States and Its Relation to Racial Attitudes: A New Approach", *Journal of Cognition and Culture*, 9, 15-38.
- Haslanger, S. 2019, "Haslanger's Reply to Glasgow, Jeffers, and Spencer", in Glasgow, Haslanger, Jeffers, and Spencer 2019, 150-75.
- Hourihaan, K., Benjamin, A., and Liu, X. 2012, "A Cross-Race Effect in Metamemory: Predictions of Face Recognition Are More Accurate for Members of Our Own Race", *Journal of Applied Research in Memory and Cognition*, 1, 158-62.
- Jablonski, N.G. and Chaplin, G. 2000, "The Evolution of Human Skin Coloration", *Journal of Human Evolution*, 39, 1, 57-106.
- Konig, B.A., Soo-Jin Lee, S., and Richardson, S.S. 2008 (eds.), *Revisiting Race in a Genomic Age*, Piscataway: Rutgers University Press.
- Kripke, S. 1980, *Naming and Necessity*, Cambridge, MA: Harvard University Press.
- Nielsen, R. 2022, "Modern Population Genetics and Race", in Lorusso, L. and Winther, R.G. (eds.), *Remapping Race in a Global Context*, New York, Routledge, 157-63.
- Purnell, T., Idsari, W., and Baugh, J. 1999, "Perceptual and Phonetic Experiments on American English Dialect Identification", *Journal of Language and Social Psychology*, 18, 10-30.
- Root, M. 2000, "How We Divide the World", *Philosophy of Science*, 67, S628-S639.
- Rosenberg, N. et al. 2002, "Genetic Structure of Human Populations", *Science*, 298, 2381-85.
- Spencer, Q. 2014, "A Radical Solution to the Race Problem", *Philosophy of Science*, 81, 5, 1025-88.
- Spencer, Q. 2019a, "How to Be a Biological Racial Realist", in Glasgow, Haslanger, Jeffers, and Spencer 2019, 73-110.
- Spencer Q. 2019b, "Spencer's Reply to Glasgow, Haslanger, and Jeffers", in Glasgow, Haslanger, Jeffers, and Spencer 2019, 203-44.
- Tishkoff, S. et al. 2009, "The Genetic Structure and History of Africans and African Americans", *Science*, 324, 5930, 1035-44.
- United States Census Bureau 2015, 2015 National Content Test: Race and Ethnicity Analysis Report, Taken From the Web, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/plan/final-analysis/2015nct-race-ethnicity-analysis.html> (accessed 7 August 2023).