

Race and Biology

Lecture for PHIL 3334:
Philosophy of Biology

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Three types of views about race

- 1) Race is a biological category. Human races are natural kinds.
- 2) Race is *meant* to be a biological category. But there aren't different natural kinds of people in the right way. So races do not exist.
- 3) Human races do exist and are objectively real. But they are social kinds - not biologically natural kinds.

Papers we read:

- 1) Appiah, (1990)
“Why there are no human races”
— Along with Bernier (1684) and the AAA statement on race (1998)
- 2) Mills, (2000)
“But what are you *really*: The metaphysics of race”
- 3) Cavalli-Sforza, (1991)
“Genes, languages and peoples”
- 4) Andreasen, (1998)
“A new perspective on the race debate”
- 5) Glasgow, (2015)
“On the new biology of race”

Appiah's conclusion

- 1) There are no biological races
- 2) The history of racial terms refers to essential biological divisions
- 3) There are no such divisions so there are no races

Mills conclusion

- 1) Race is real and is socially constructed
- 2) It is not *biologically* real (no natural divisions of people) but it is objectively real.
- 3) Race is “a *contingently* deep reality that structures our particular social universe, having a social objectivity and causal significance that arise out of *our* particular history”

Andreasen's framing

Andreasen frames her paper with the backdrop of looking for a biologically based concept of race.

- 1) She assumes that race is then synonymous with subspecies
- 2) Typological concepts (groups with essential traits) aren't well supported, but a population history based evolutionary concept can work
- 3) So IF human history has a tree structure, then there are human races

Andreasen's tree (after Cavalli-Sforza)

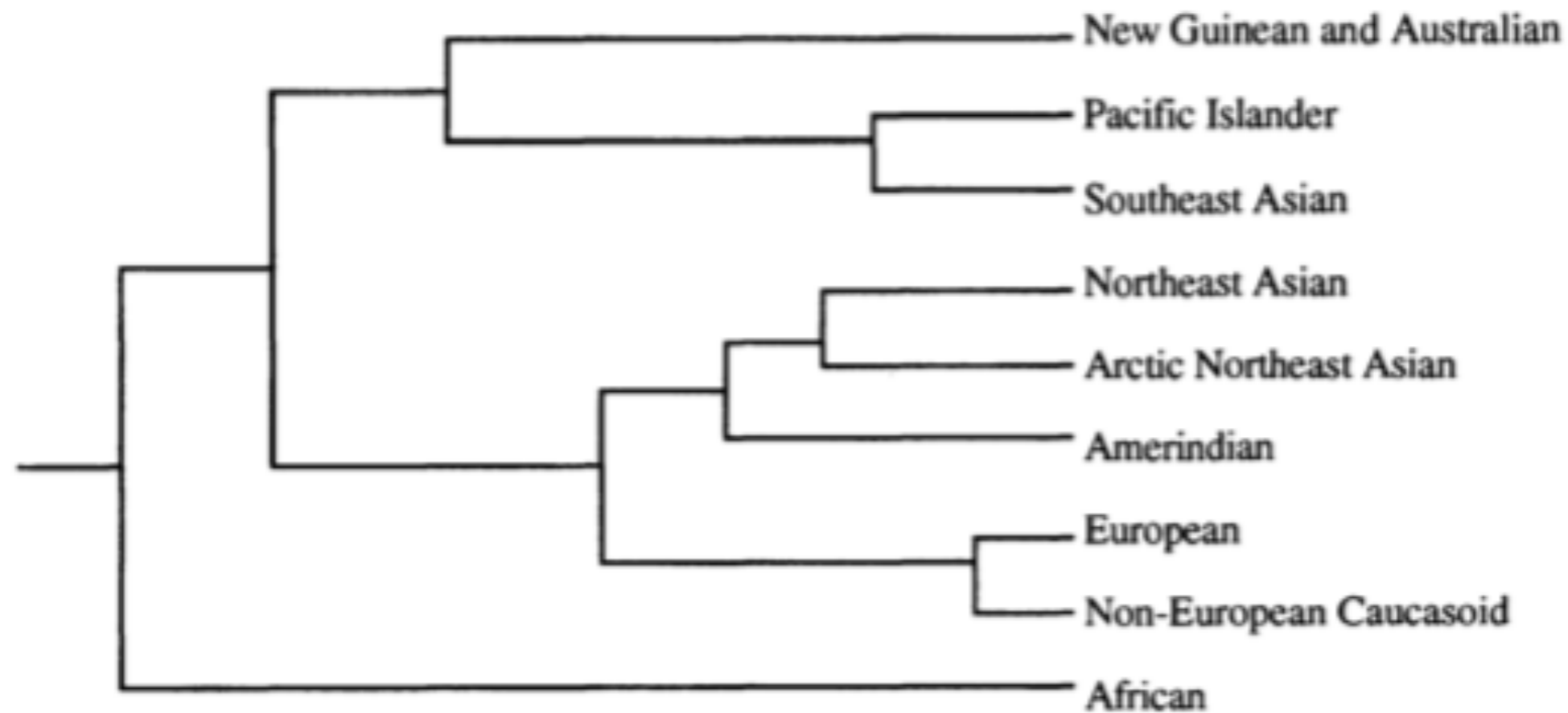


Fig 3.

The cladistic view of race

The cladistic view of taxonomy would say that only clades (monophyletic groups) can be taxa. You could in principle have other criteria in addition, but Andreasen doesn't.

So any clades of human populations are possible races. There could be:

2 races (African, non-African)

3 races (African, south pacific, Europe+north/central/south asia)

4 races (African, + choices...

Criticism? Or benefit?

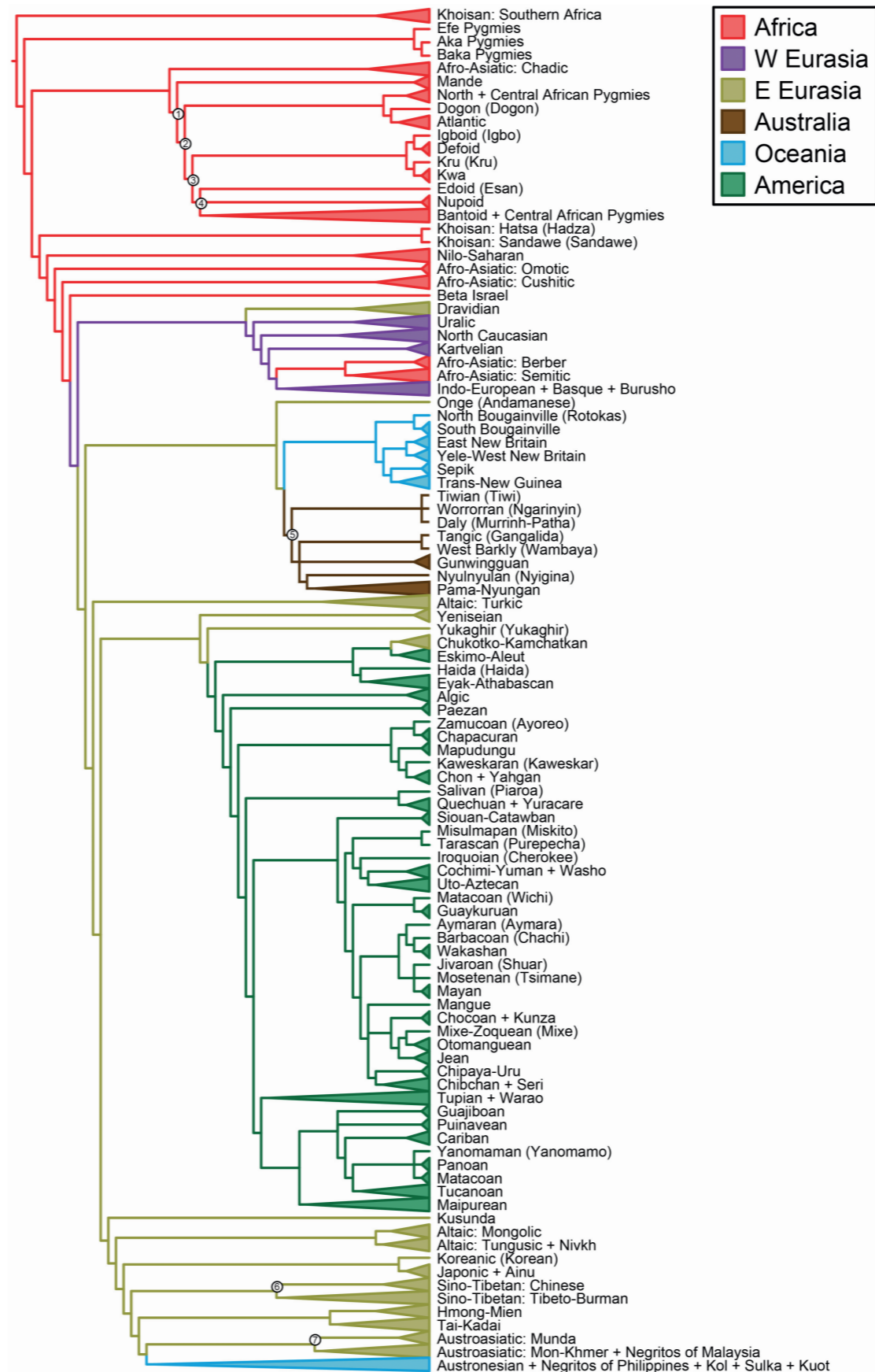
So on the cladistic view, there is no answer to the question - how many races are there?

Also no answer to is X the same race as Y?

What we can say is that if X and Y are the same race, then Z must be too (so if American Indian and Arctic North Asian are the same race, then Northeast Asian is the same as well).

Lots of other reasonable trees have been published. Here is one with some African groups closer to some non-Africans than to some other Africans (so “African” is not a clade)

Towards a global phylogeny of human populations based on genetic and linguistic data
From Duda and Zrzavy (2019)



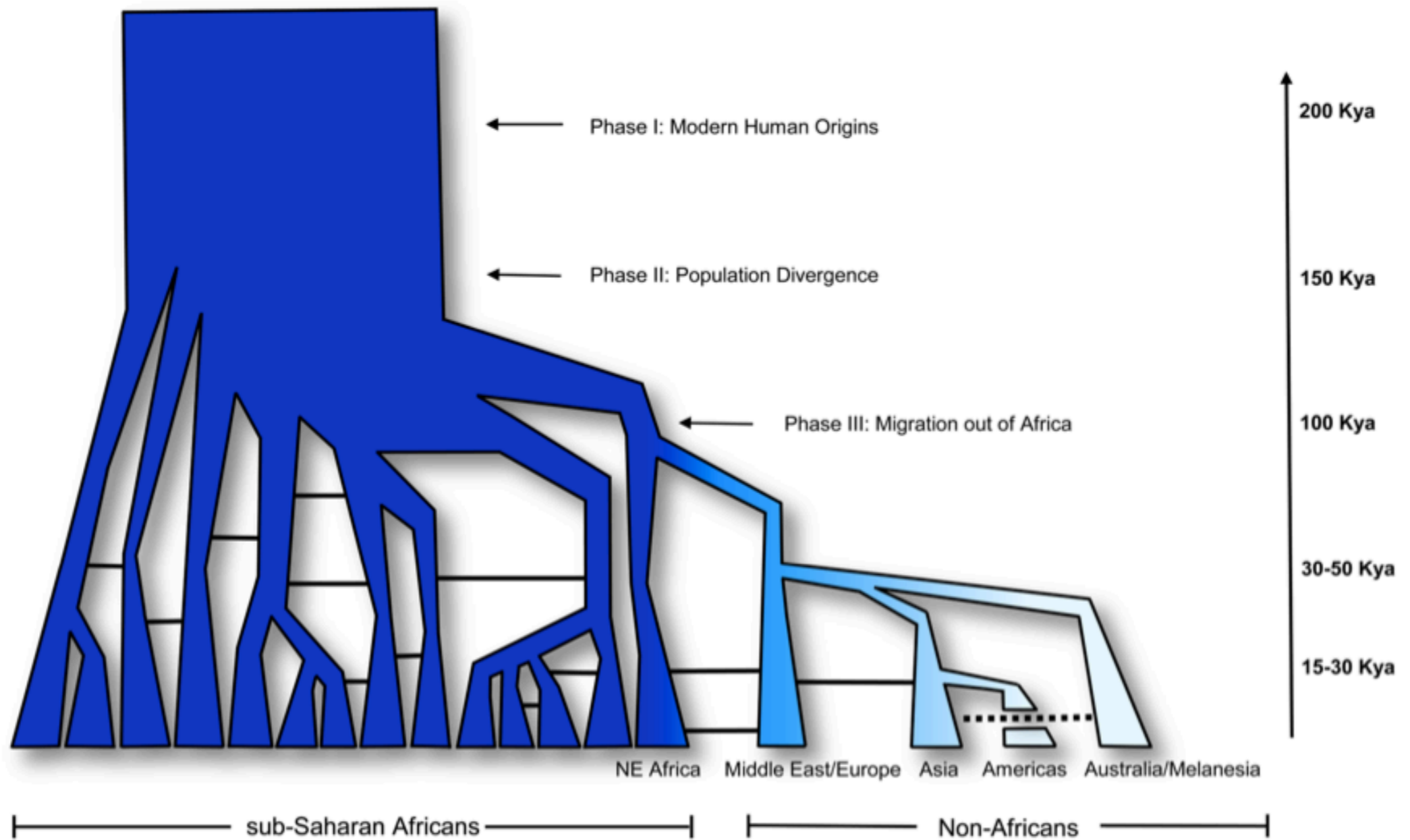


Figure 2. The ‘Recent African Origin’ model of modern humans and population substructure in Africa

A study of genome-wide polymorphic markers in 121 ethnically diverse African populations

from: The Evolution of Human Genetic and Phenotypic Variation in Africa
 Campbell and Tishkoff (2010)

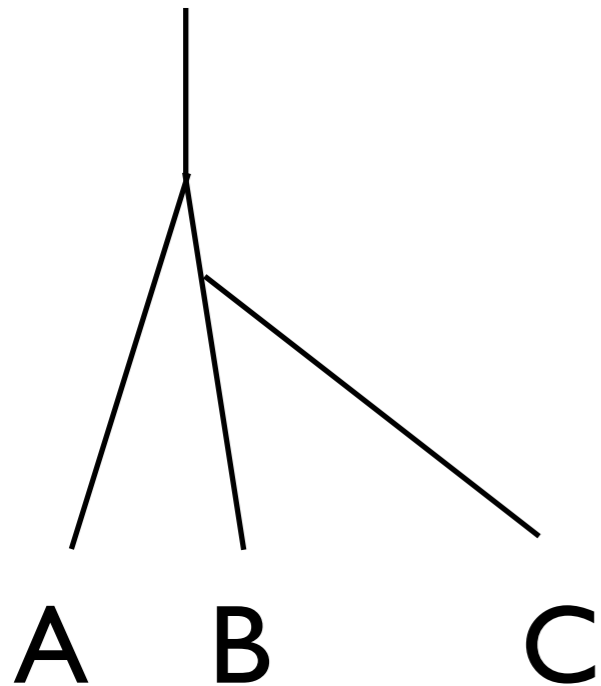
Glasgow's criticism

Glasgow's central criticism of Andriessen is that cladistic races are too far apart from common sense conventional groupings to be a concept of RACE

Perhaps these are interesting biological groups for some purposes, but they aren't a biological underpinning for race

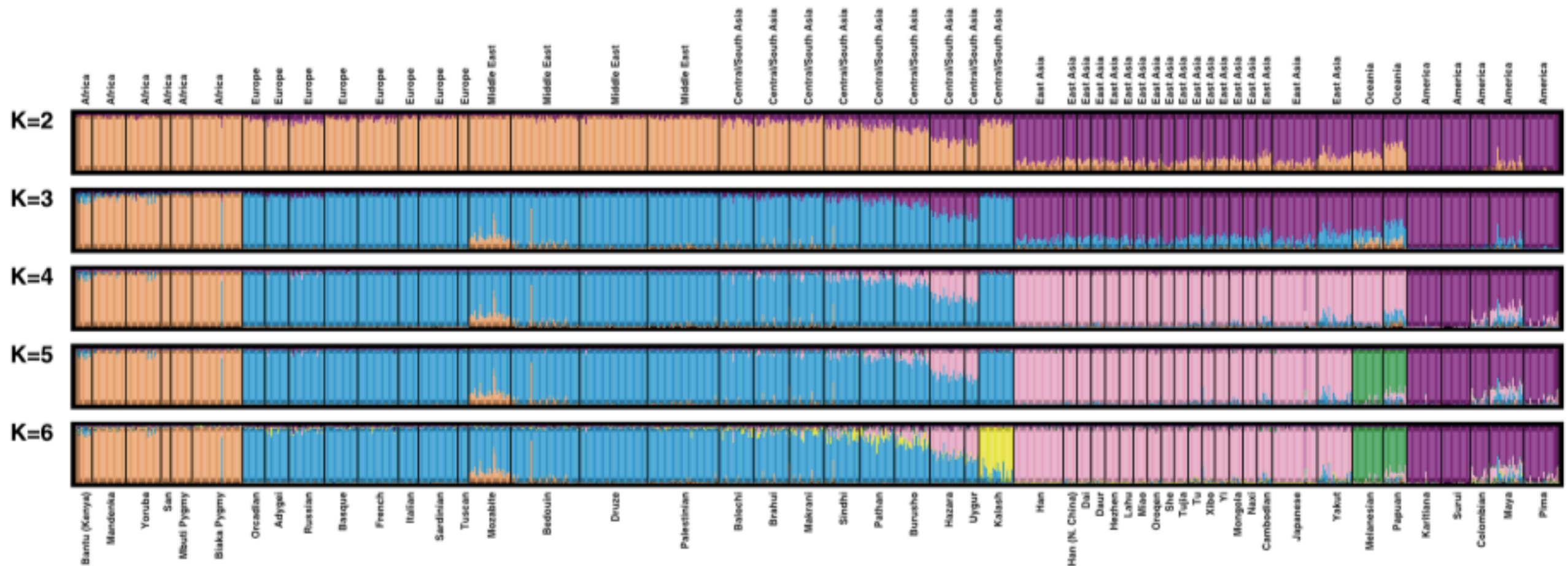
Genetic similarity vs. ancestry

There are lots of reasons that ancestry can come apart from similarity. For example, ancestral populations might remain similar while an emerging, smaller group undergoes rapid change



Here B is more closely related to C, but genetically, might still be more similar to A

Genetic clustering of humans



from: Genetic Structure of Human Populations
Rosenberg et. al (2002)

Genetic cluster races?

Some authors (like Spencer 2014) take the Rosenberg data to justify the ordinary American conception of race

He calls the $K=5$ partition “the Blumenbach partition” and points out that it is quite similar to the US census categories and even historical groupings like Blumenbach (1795)

Rosenberg: black Africans, Caucasians, East Asians, Amerindians, and Oceanians

Blumenbach: Ethiopian, Caucasian, Mongolian, American, Malayan

What does biological realism require?

Appiah assumes that “race” builds in that people of different races actually differ in important (essential) ways

Populations have trait frequencies, but fixed, unique traits. Clades above the species level are identified (defined?) by synapomorphies - shared, derived characteristics. That doesn't happen below the species level which is why cladism is not actually used there

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We know enough now to know that there are genetic differences between groups. Are they BIG differences? Are they IMPORTANT differences? What do you mean here? (And we don't know - for example, the genetic unpinnings of behavior is very controversial)

Genetic clusters and groups within groups

Two common criticisms of the clustering approach are:

- 1) There is no set number of natural groups. $K=5$ means you tell the computer there are five groups ahead of time and then it sorts people. But you can set $K=6$ or $K=9$ or $K=20$ and it will find 20 groups
- 2) Genetic differences are graded (clinal) varying more or less continuously over space and time

Possible conclusions

- 1) Race is biologically real and we should correct our misconceptions (no essential traits or fixed types, dynamic changes over time, and even who is which race)
- 2) Biology differs too much from what we assumed. So biological races don't exist (maybe no race, maybe social)
- 3) Some kind of pluralism? Maybe there is a scientific conception and also a social conception and they are related but not the same?