

CRITIQUES AND CONTENTIONS

Blumenbach's Racial Geometry

By Thomas Junker*

RECENTLY A REVISED AND EXPANDED EDITION of Stephen Jay Gould's classic *The Mismeasure of Man* has been published.¹ I remember that I was very impressed when I read the first edition several years ago—especially by Gould's demonstration of how scientific "facts" about certain traits in humans were influenced by ideological pre-suppositions. A similar insight can be gained from the new edition—but in a way that Gould probably did not intend. He seems to have fallen into the very trap that he criticizes in *The Mismeasure of Man*.

Together with other additions, the new edition of the book contains a discussion of Johann Friedrich Blumenbach's anthropological classification under the heading "Racial Geometry." In this chapter Gould claims that Blumenbach's influence was crucial in the transition from a geographical to a hierarchical ordering of human diversity. This shift not only shaped the further development of anthropology, but—according to Gould—it had significant and disastrous social consequences: Blumenbach has changed "the mental geometry of human order to a scheme that has promoted conventional racism ever since" (p. 405). A rhetorical question at the end of the chapter, "Where would Hitler have been without racism?" (p. 412), makes abundantly clear that Gould envisions a causal connection between scientific anthropology, especially Blumenbach, and the most hideous crime of our century. It is certainly very important to point out that scientists should feel responsible for the social and political consequences of their ideas, as Gould does. But they also have an obligation to science itself—that is, to give a reliable account of their findings, without misrepresenting them for some "higher" social end.

It is certainly true that there are numerous connections between anthropology and racism, though I will not discuss them here. I will focus instead on how Gould tries to demonstrate this connection in the case of Blumenbach. His central claim is that Blumenbach "ended up with a system (see the accompanying illustration from his treatise) that placed a single race at the pinnacle of closest approach to the original creation, and then

* Lehrstuhl für Ethik in den Biowissenschaften, Universität Tübingen, Sigwartstr. 20, 72076 Tübingen, Germany.

¹ Stephen Jay Gould, *The Mismeasure of Man*, rev. and expanded ed. (New York/London: Norton, 1996). Page numbers for quotations from this work will appear in parentheses in the text.

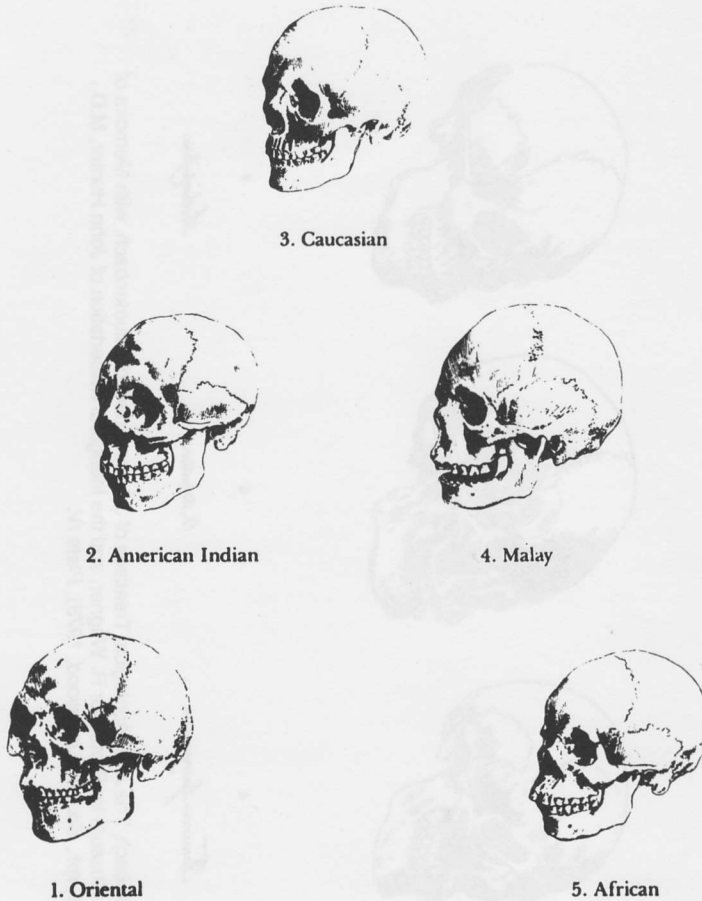


Figure 1. Blumenbach's racial geometry in Stephen Jay Gould, *The Mismeasure of Man*, rev. and expanded ed. (New York/London: Norton, 1996), page 409.

envisioned two symmetrical lines of departure from this ideal toward greater and greater degeneration'' (p. 410; emphasis added). In the caption to the illustration, this statement and the assertion that the illustration is from Blumenbach's *Anthropological Treatises* are reiterated. (See Figure 1.)

The illustration, however, is *not* from Blumenbach's *Treatises*. In the *Treatises* (and in the original Latin and the German editions that were published during Blumenbach's lifetime) we find a completely different picture: a horizontal arrangement of the skulls. A closer look reveals that for Gould's illustration the original pictures of the skulls used by Blumenbach were rearranged in such a way as to seem to confirm the hierarchical interpretation. In addition, Blumenbach's captions under the skulls were changed. Blumenbach uses geographical labels to distinguish specimens, not names for typological races.² (See Figure 2.)

² Johann Friedrich Blumenbach, *The Anthropological Treatises of Johann Friedrich Blumenbach, with Memoirs of Him by Marx and Flourens, and an Account of His Anthropological Museum by Professor R. Wagner*,

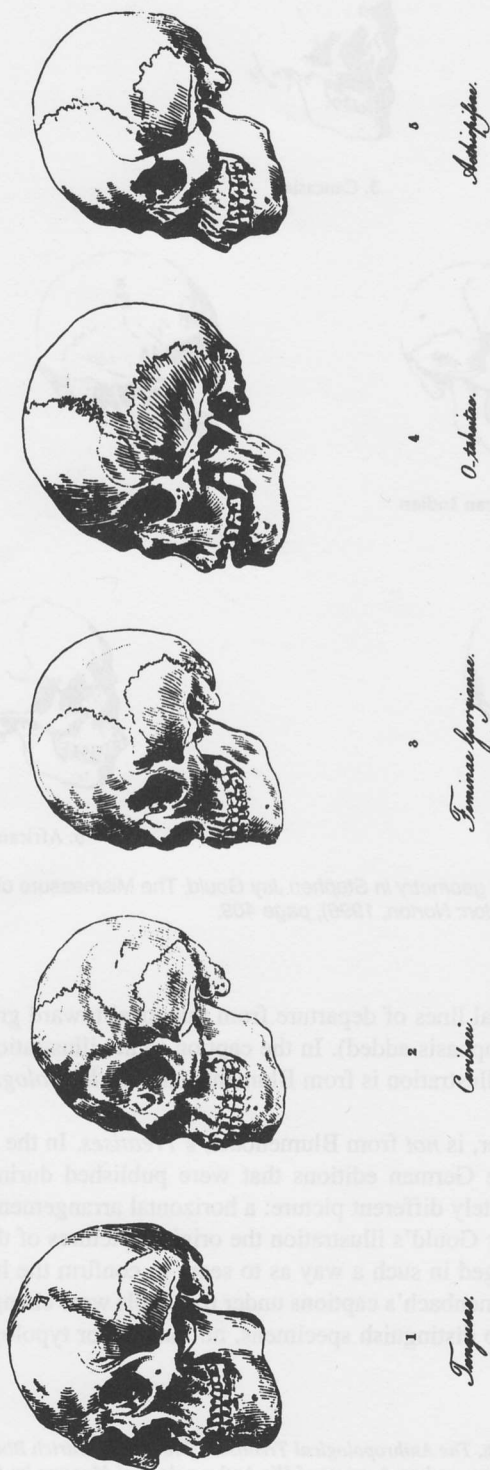


Figure 2. Blumenbach's racial geometry in Johann Friedrich Blumenbach, *The Anthropological Treatises of Johann Friedrich Blumenbach*, with Memoirs of Him by Marx and Flourens, and an Account of His Anthropological Museum by Professor R. Wagner, and the Inaugural Dissertation of John Hunter, M.D., on the Varieties of Man, ed. and trans. by Thomas Bendyshe (1865; rpt., Boston: Longwood, 1978), Plate IV.

It is obvious that, had he used the original illustration published by Blumenbach, Gould's argument would have collapsed to a large extent. Of course, Blumenbach might have "implied" a triangle that would have given a visual representation of his supposedly hierarchical model, and it was only Gould who has discovered this intention. Blumenbach, however, chose a horizontal arrangement, and it would require a completely different argument to show that he "ended up affirming racial hierarchy by way of geometry" (p. 49). In a way this misrepresentation seems to confirm the constructionist notion, mentioned by Gould, that "unconscious presupposition always influence[s] our analysis and organization of presumably objective data" (p. 49). But it cannot be taken as an excuse for an obvious distortion of historical facts based on modern projections.

and the Inaugural Dissertation of John Hunter, M.D., on the Varieties of Man, ed. and trans. by Thomas Bendyshe (1865; rpt., Boston: Longwood, 1978). The illustration is originally from the third edition of Blumenbach, *De generis humani varietate nativa* (Göttingen: Vandenhoeck & Ruprecht, 1795); it can also be found, with translated captions, in the German translation of this edition: *Über die natürlichen Verschiedenheiten im Menschengeschlechte* (Leipzig: Breitkopf & Härtel, 1798).

On Mental and Visual Geometry

By Stephen Jay Gould*

I THANK THOMAS JUNKER for his correction to the illustration of Blumenbach's skulls that accompanies the reprint of my essay, originally written for *Discover Magazine* (1994), in the revised version of *The Mismeasure of Man* (1996).¹ Blumenbach's original depicts these skulls on a line, with the Caucasian example in the center. The version prepared by the Norton book designers converted this line into a wedge, with the Caucasian skull at the apex. The caption should have read "modified from . . . Blumenbach" rather than "from . . . Blumenbach," and the mode of modification should have been fully and explicitly specified. I did not prepare the figure, and I doubt that I ever saw it before publication, for I only obtained galleys of the text for proofreading. Nonetheless, the fault is entirely mine, as authors must assume full responsibility for any editorial changes or alterations. That is, authors should be proactive in overseeing every detail of a published book—a difficult task given standard procedures of publishing, where authors always work under time pressure and with partial versions missing various apparatuses of figures, footnotes, bibliographies, and so forth. But again, no excuses. I should have been more insistent.

However, I am quite surprised by Junker's claim that my argument "would have collapsed to a large extent" if I had used Blumenbach's original figure—for a fundamental and conclusive reason that must be immediately apparent to any careful reader of my essay. My argument rests entirely upon Blumenbach's text. I never mention or cite his figure at all (except in a parenthetical remark, inserted by the editors to reference the added illustration). I don't think that I even knew about the figure when I wrote the article, for I worked from a photocopy of Blumenbach's text alone. The version that accompanies my essay, drawn and inserted by the editors, does epitomize my argument in a useful way (especially for the nonprofessional readers targeted by *Discover* and, later, by my book), but it remains superfluous and additional to my intent and analysis.

To summarize my argument: Blumenbach's original 1775 fourfold classification of human races follows his acknowledged master Linnaeus in recognizing four unranked divisions based on geography. His later 1795 version both adds a fifth (Malay) race and reorganizes the Linnaean geographic arrangement into a double hierarchy, moving outward in two directions from a Caucasian ideal to least desirable Oriental and African endpoints via American Indian and Malay intermediaries—hence the importance of his Malay ad-

* Museum of Comparative Zoology, Harvard University, 26 Oxford Street, Cambridge, Massachusetts 02138.

¹ Stephen Jay Gould, "The Geometer of Race," *Discover*, Nov. 1994, 15:64–69; and Gould, *The Mismeasure of Man*, rev. and expanded ed. (New York/London: Norton, 1996). Page numbers for quotations from the book will appear in parentheses in the text.

dition to give the system full symmetry. One can draw such a system as Blumenbach's line (with a Caucasian center), as Norton's modified wedge, as separate figures on five different pages, or not at all—and Blumenbach's point remains unchanged. Blumenbach presents his geometric argument textually, not pictorially (although Norton's wedge illustrates his textual claim accurately, for the line and the wedge share the same topology). I quoted Blumenbach's text fully and prominently on the last page (412) of my article, and I both base and rest my case upon his words:

I have allotted the first place to the Caucasian . . . which makes me esteem it the primeval one. This diverges in both directions in two, most remote and very different from each other; on the one side, namely, into the Ethiopian, and on the other into the Mongolian. The remaining two occupy the intermediate positions between the primeval one and these two extreme varieties; that is, the American between the Caucasian and Mongolian; the Malay between the same Caucasian and Ethiopian.

So, in what way would my argument "have collapsed to a large extent" if my article had reproduced Blumenbach's own and entirely adequate illustration of these words?

Academic professionals should understand the different traditions of general writing, while properly insisting upon certain universal standards. I submitted the original article to *Discover Magazine* without any illustrations. They drew a wedge illustrated with fanciful skulls of their own construction. Evidently, Norton retained the wedge from this original but substituted Blumenbach's own drawings of skulls for *Discover's* confections. In the perennial battle between author and editor in popular magazines, authors generally cede control over pictures and titles in exchange for authority (what else, after all, can an author claim, if only etymologically) over the text. But I am only offering an explanation of common practice, not an excuse. Again: authors must be fully responsible for any product appearing under their names.

Finally, Junker has misstated the central thesis of my article—a misinterpretation that cannot, I think, be attributed to any lack of clarity on my part. He apparently assumes that I wrote to castigate Blumenbach and to place him among the overt and conscious scientific racists whom history must hold to account for their contributions to many tragedies of our time. But I wrote this essay with an entirely opposite intention. Perhaps it should not matter to a true historian, and perhaps we must always strive to eliminate such partisanship from our writing, but Blumenbach ranks as a hero in my pantheon—and the scientific essay, as a literary form, has always encouraged the expression of such personal authorial views.

I decided to write this essay because I had been moved by a central irony inherent in Blumenbach's switch from an unranked geographical taxonomy to a doubly graded ordering of merit—and I felt that this emotional jolt might provide the "hook" that writers of such general essays must always seek: a way to bring noncommitted, nonprofessional readers into sympathy with a subject and therefore lead them to consider some scientific or philosophical themes of wider import.

If Blumenbach had been just one more self-conscious scientific racist, peddling his ranked scheme to promote, or just to reflect, his obvious and conventional prejudices, then where could such sympathy or interest lie? In such a circumstance, I almost surely would not have been inspired to write an essay at all. But—and now the irony—Blumenbach was the most genial and nonracist of eighteenth-century thinkers. I wrote: "Blumenbach stoutly defended the mental and moral unity of all peoples. He held particularly strong opinions

on the equal status of black Africans and white Europeans—perhaps because Africans had been most stigmatized by conventional racist beliefs” (p. 408).

But Blumenbach remained caught in his culture’s surrounding preferences for linear taxonomies. He therefore decided to rank people by physical beauty alone, explicitly disavowing any imputation of moral or intellectual worth. We may, with hindsight, recognize the absurdity of a scheme that so easily places one’s own group on an aesthetic pinnacle while viewing those most distant as maximally degenerated from a primeval ideal. But I think that we must also honor Blumenbach’s geniality, and his intellectual struggle, while recognizing one of the most wrenchingly complex of all historical principles: that motives and consequences do not always, or even usually, correlate very well. Hence, as I wrote to state the central theme of my essay:

Ironically, J. F. Blumenbach is the focus of this shift—for his five-race scheme became canonical, and he changed the geometry of human order from Linnaean cartography to linear ranking by putative worth.

I say ironic because Blumenbach was the least racist, most egalitarian, and most genial of all Enlightenment writers on the subject of human diversity. How peculiar that the man most committed to human unity, and to inconsequential moral and intellectual differences among human groups, should have changed the mental geometry of human order to a scheme that has promoted conventional racism ever since. Yet, on second thought, this situation is really not so peculiar or unusual—for most scientists have always been unaware of the mental machinery, and particularly of the visual or geometric implications, behind all theorizing. (Pp. 405–406)