

*Kant and the Skull Collectors:  
German Anthropology from Blumenbach to Kant*

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It is well known that in the *Critique of the Power of Judgment*, Kant included appreciative remarks regarding the work being done by his German contemporary Johann Friedrich Blumenbach (1752–1840). Blumenbach, a generation theorist who taught medicine and comparative anatomy in Göttingen, and one of the leading forerunners of German anthropology in the late eighteenth century, had been in the public eye since his 1776 publication of *De generis humani varietate nativa* (*On the Varieties of Mankind*). By the time Blumenbach came to publish a revised edition of this text in 1781, he had also fashioned a new theory of generation, one relying on a *Bildungstrieb*, or “formative force,” a force he described as the agency responsible not only for embryological development but, as he would later come to develop it, for understanding the degeneration of the human species into its distinct varieties or races of men. It was this force, or *Bildungstrieb*, that Kant referenced in his *Critique of the Power of Judgment*. Kant was appreciative of Blumenbach’s theory of generation and described his position as a case of “epigenesis” or “generic preformation,” a theory that “minimizes appeal to the supernatural, and after the first beginning leaves everything to nature” (CPJ, 5:424). It is for the most part on the basis of these remarks that Kant’s connection to Blumenbach has so far been taken up in the scholarly literature.<sup>1</sup>

This essay will lay out the historical case for a broader assessment of Kant’s relationship to Blumenbach by focusing first on Kant’s review of Herder in 1785 as the best lens through which to understand not only

<sup>1</sup> Two of the more helpful articles examining Blumenbach’s relationship to Kant from this angle are Richards’s “Kant and Blumenbach on the *Bildungstrieb*: A Historical Misunderstanding” and Zammito’s “The Lenoir Thesis Revisited: Blumenbach and Kant.” My essay is also indebted to Sloan’s “Buffon, German Biology, and the Historical Interpretation of Biological Species”; Bernasconi’s “Kant and Blumenbach’s Polyyps. A Neglected Chapter in the History of the Concept of Race”; and Mikkelsen’s editorial apparatus in *Kant and the Concept of Race. Late Eighteenth-Century Writings*.

their respective theories of generation, but indeed the specific motivation leading to Kant's support for Blumenbach at all. The results of this inquiry will suggest that, while Kant might have been interested in gaining the support of the rising star of the Göttingen medical faculty, Blumenbach's own theories did little to influence Kant's approach to either generation-theory or race.

Before turning to any specifics, we should contextualize Kant's relationship to Blumenbach, a task perhaps best accomplished by way of something like a timeline. The first evidence we have of Blumenbach's knowledge of Kant comes from the second edition of his *De generis humani varietate nativa* in 1781, where Kant is grouped alongside other theorists attempting to determine the precise number of races.<sup>2</sup> Whether Kant was reading Blumenbach's work before the mid-1780s is uncertain. The earliest evidence we have is Kant's reference to Blumenbach in a 1788 essay, *Concerning the Employment of Teleological Principles in philosophy* (ETP, 8:157–84), but before turning to that particular passage, it is important to put it in its immediate historical context, since, as we will see, the players involved here will be key to understanding Kant's subsequent relationship to the German anthropologist.

Between 1784 and 1785, Kant's former student J. G. Herder published Parts 1 and 2 of his monumental *Ideen zur Philosophie der Geschichte der Menschheit* (*Outlines of a Philosophy of the History of Man*). Kant responded in 1785 with a series of critical remarks, first while reviewing Part 1 in January, then by publishing a reply in March to K. L. Reinhold (who had referred to Kant's piece in his own review of the *Ideas*), and finally in November by providing another lengthy review, now of Part 2 (Kant would beg off reviewing Part 3 when it appeared in 1787, given his consuming work on a "critique of taste"). November was the same month that Kant's second essay on race was published as well, and if continued attention on Herder's own and much different approach to racial

<sup>2</sup> *De generis humani varietate nativa* was the inaugural dissertation delivered by Blumenbach in Göttingen in 1775 and published in 1776. It appeared in a second edition in 1781 with minor changes, apart from its new inclusion of a fifth, brown-skinned race, the "Malay." References to Kant in 1781 can be found on pp. 50, 62, and 97. Its third and final edition in 1795 contained major changes, including references to Kant's support for Blumenbach in his 1788 essay on teleology (ETP, 8:180) and in *Critique of the Power of Judgment* in 1790 (CPJ, 5:424). The 1776 and 1795 editions were translated into English by Thomas Bendyshe for the Anthropological Society of London as *The Anthropological Treatises of Johann Friedrich Blumenbach* (London: Longman, Green, and Roberts, 1865). All of Blumenbach's extant works and translations are available online at [www.blumenbach-online.de/fileadmin/wikiuser/Daten\\_Digitalisierung/Bibliographie/Bibliographie.html](http://www.blumenbach-online.de/fileadmin/wikiuser/Daten_Digitalisierung/Bibliographie/Bibliographie.html), and I am grateful to Wolfgang Böker in Göttingen for the additional support and resources he has provided me viz. the Blumenbach archive.

difference was not the immediate inspiration, then we can at least say with certainty that Kant had by then become entirely clear on the points in his own theory that would need to be emphasized in light of Herder's differing account.

Kant raised a number of objections to Herder's *Ideas*, but we can focus for now on the special attention he paid to the number of instances in Herder's work where he had appealed to a set of unspecified organic forces. These were forces running through nature, and they were responsible for not only the formation of individuals and their species lines, but also their general affinity with all other lines such that there was "an eternal progression of organic creation" to behold between them (RHe, 8:48). For Herder, this affinity held between organic and material substances as well. As Kant summarized it in his review of Part I, "The more that the one organic principle of nature that we call now *formative* (in the rock), now *growing* (in the plant), now *sensitive*, now *artificially constructive*, and which is fundamentally only one and the same organic force" (RHe, 8:48), the more we will realize that there is in fact an "*invisible realm of forces*, standing in precisely the same connection and transition, and an ascending series of invisible forces, just as in the visible realm of creation," and that indeed "one can regard humankind as the great flowing together of lower organic forces, which are to germinate in him into the formation of humanity" (RHe, 8:50). In the end, as Kant rehearsed it, it was on the basis of this sort of "analogy of nature," for Herder, that one could even describe the formation of the human soul as occurring via "spiritual forces," and as marking the highest gradation to be attained by humanity.

For Kant, this was all simply too much. Had Herder not retained any of the lessons he had seemed to have absorbed so readily in the mid-1760s as Kant's student? These were, after all, precisely the years when Kant was formulating a critique of speculative approaches in the life sciences (e.g., *Only Possible Argument* in 1763; OPA, 2:63–163), chastising the irresponsible use of forces in both nature and metaphysics (in *Dreams of a Spirit-Seer* in 1766; DSS, 2:315–73), and diagnosing the central crisis facing philosophy to be the result of just such irresponsible use of these sorts of "subreptive axioms" (in the Inaugural Dissertation in 1770; ID, 2:385–419). And as for a continuous gradation or "scale of nature" between beings, Kant had just again reminded his readers of the special kind of illusions this idea could generate (in *Critique of Pure Reason* in 1781; A668/B696). It comes as no surprise, therefore, that Kant closed his review of Part I with a lecture to his former student regarding the dangers

of speculation and the futility of wanting “to explain *what one does not comprehend* from *what one comprehends even less*” (RHe, 8:54).<sup>3</sup>

Given Kant’s longstanding critique of hylozoism, he would have been particularly incensed by Herder’s appeal to organic forces running through all creation, but in his review, Kant was most concerned by what this would mean for species (and, by extension, racial) fixity. Without an account of the specific means by which form could be both instantiated at the level of the individual and maintained across the history of the species, the result, from Kant’s perspective, was a veritable chaos, a world “where either one species would have arisen from the other and all from a single original species or perhaps from a single procreative maternal womb,” a situation “so monstrous that reason recoils” before it (RHe, 8:54).<sup>4</sup>

The dramatic nature of Kant’s response on this point would catch the attention of Reinhold, who in turn scolded Kant in his own review of Herder’s *Ideas* with the comment, “Healthy reason left to its own freedom recoils from no idea.” In his March rejoinder, Kant repaid the remark, and while quoting Reinhold back to himself took the opportunity to further elaborate the point against Herder, exclaiming, “It is merely the *horror vacui* of universal human reason, namely, to *recoil* where one runs up against an idea in which *nothing at all can be thought*, and in this regard the ontological codex might well serve as a canon for the theological, and indeed precisely for the sake of tolerance” (RHe, 8:51). Kant was hardly immune to the attractions posed by this sort of mental adventure – indeed, he had documented its connection to physical-theology as early as 1763 – but he understood as well that without categories to stabilize our experience of the world, both science and metaphysics would be lost.

Between the riposte in March and the appearance of his review of Part 2 of Herder’s *Ideas*, Kant began work on his second essay on racial difference, the *Determination of the Concept of a Human Race* (HR, 8:89–106), which appeared in that November’s issue of the *Berlinische Monatsschrift*. On November 8, Kant sent off his *Conjectural Beginning of Human History* (CBHH, 8:125–30) for publication – a text that was widely understood to

<sup>3</sup> In *Dreams of a Spirit-Seer* (DSS, 2:315–73), Kant discusses the appeal of a “principle of life” for understanding organic processes: “I must confess that I am very much inclined to assert the existence of immaterial natures in the world, and to place my own soul in the class of these beings . . . The reason which inclines me to this view is very obscure even to myself, and it will probably remain so, as well. It is a reason which applies at the same time to the sentient being of animals. The principle of *life* is to be found in something in the world which seems to be of an immaterial nature. For all *life* is based upon the inner capacity to determine itself voluntarily [*nach Willkür*]” (ibid., 2:326–7).

<sup>4</sup> See also Helbig and Nassar on this point in “The Metaphor of Epigenesis: Kant, Blumenbach and Herder.”

be, in part, a satire of Book 10 of Herder's *Ideas*. But November 8 was also the day that Kant received Part 2 of the *Ideas*, and he seems to have put together his review of it almost upon receipt, since it appeared one week later, in the November 15 issue of the *Allgemeine Literaturzeitung*.<sup>5</sup>

Kant's review of Part 2 began with a quick rehearsal of the main topics covered by Herder in Books 6–10. This was followed by an unflattering set of remarks on Herder's "poetical spirit," with Kant wondering out loud "whether here and there synonyms have not been allowed to count as explanations and allegories for truths; whether instead of there being neighboring passages from the domain of philosophical language into the precinct of poetical language, the boundaries and proper dominions of both have not been completely displaced," and so on (RHe, 8:60). These were hardly words to mollify Herder, who had been deeply stung by Kant's January review, writing in its aftermath to tell his friend Johann Georg Hamann that he should henceforth refrain from mentioning any of Herder's doings to Kant, calling the review "malicious, distorting, metaphysical, and entirely removed from the spirit of the book from beginning to end," and describing Kant himself as "malicious and infantile" for taking the opening discussions of Herder's work for the whole.<sup>6</sup>

It was in this letter that Herder also told Hamann that he had read Kant's 1784 *Idea for a Universal History with a Cosmopolitan Aim* (IUH, 8:15–31) just before discovering the identity of his reviewer. It might have been predicted, therefore, that Herder would single out this text for scrutiny, and indeed, Part 2 of the *Ideas* included not just a critique of efforts (e.g., Kant's) to describe the natural state of mankind as one of antagonism and hostility, but a lengthy defense of human happiness and tranquility, singling out the "happy islanders" as special examples of this.<sup>7</sup> It was to these remarks that Kant thus offered his most focused set of criticisms in his review of Part 2. For against Herder's promotion of the tranquil simplicity enjoyed by islanders, Kant insisted, just as he had in *Universal History*, that humans must strive to be worthy of happiness and that it was indeed in humanity's striving toward progressive improvement that mankind's worth ultimately lay: "what if the genuine end of providence were not this shadowy image of happiness," Kant asked, "but rather the always proceeding and growing activity and culture that is put in play by it, whose greatest possible degree is only the product of a state

<sup>5</sup> Biographical details are in Kuehn, *Kant*, pp. 297–301.      <sup>6</sup> Reprinted in *ibid.*, pp. 295–6.

<sup>7</sup> These themes run throughout Book 8; see Herder, *Outlines of a Philosophy of the History of Man*, trans. T. Churchill.

constitution ordered in accordance with concepts of human right, and consequently something that can be a work of humans themselves?” (RHe, 8:64). It was on the heels of this comment, moreover, that Kant went on to say that had the “happy inhabitants of Tahiti” been destined only to live lives of “tranquil indolence” so eloquently described by Herder, then there simply would be no explanation for their existence, given what Kant understood the aims of providence to be. As he put it, there would be no sense of “whether it would not have been just as good to have this island populated with happy sheep and cattle as with human beings who are happy merely enjoying themselves,” adding, enigmatically, “that principle is therefore not as *evil* as the author thinks – Even though it might have been an *evil man* who said it” (RHe, 8:65).<sup>8</sup>

Apart from this important exchange regarding Kant’s teleological approach in *Universal History*, Kant was concerned again to pick up on the theme of generation and, given that his second essay on race had just appeared in that month’s issue of the *Berlinische Monatsschrift*, unsurprisingly now also on the issue of race. Here Kant’s comments neatly brought together ideas that by 1785 had already been long in the making. In the review, Kant began by acknowledging, with Herder, the frustrations associated with the frequently conflicting accounts provided by travelers’ reports, reports in which, for example, one might learn “that Americans and Negroes are each a race, sunk beneath the remaining members of the human species in their mental predispositions, but on the other side and just as apparent records that as regards their natural predispositions, they are to be estimated equal to every other inhabitant of the world” (RHe, 8:62). Noting after this that Herder rejected a division of the human species into races, and particularly a division of such according to color (i.e., Kant’s method), “presumably because the concept of a race is for him not distinctly enough determined,” Kant offered a reformulation of Herder’s account of the “genetic force” by which climate had been able to produce such different appearances in the human species. “The reviewer has the following concept of the meaning of this expression in the author’s mind,” Kant began,

He wants to dismiss on the one side the system of evolution and yet also on the other side the mere mechanical influences of external causes as

<sup>8</sup> Note that Kant included “rusting talents” as one of the four iconic examples of failed duty in the *Groundwork of the Metaphysics of Morals* of 1785 (G, 4:422–3). The foundational years for the long and complicated relationship between Kant and Herder are detailed by Zammito in *Kant, Herder, and the Birth of Anthropology*. Sikka focuses on their later exchanges in *Herder on Humanity and Cultural Difference*.

providing unworkable grounds of elucidation, and he assumes as its cause a principle of life, which appropriately modifies *itself* internally in accordance with differences of the external circumstances; with this the reviewer fully concurs, only with this reservation, that if the cause organizing itself *from within* were limited by its nature only perhaps to a certain number and degree of differences in the formation of a creature (so that after the institution of which, it were not further free to form yet another type under altered circumstances), then one could call this natural determination of the forming nature [*diese Naturbestimmung der bildende Natur*] also “germs” or “original predispositions,” without thereby regarding the former as primordially implanted machines and buds that unfold themselves only when occasioned as in the system of evolution, but merely as limitations, not further explicable, of a self-forming faculty, which latter we can just as little explain or make comprehensible. (RHe, 8:62–3)

In order to make full sense of this, we will need to briefly turn to Kant’s pre-Critical writings, but we can see already that in his response, Kant is both highlighting established theories of generation – “evolution” theory versus a self-modifying genetic force or principle of life – and identifying a crucial need for the latter to account for the formal stability of both species lines and, in this case specifically, the races of mankind. Here Kant suggests the use of terms he employed in his 1775 essay on race (ODR, 2:427–43), though now combined as “germs or original predispositions” with the use of a disjunctive. In 1775, these had specified different biological tasks and their ontological status was left unclear; in 1785, Kant was explicit regarding the grounds for their new isomorphism so far as they were meant only to indicate “limitations, not further explicable, of a self-forming faculty, which latter we can just as little explain or make comprehensible.”

Kant had, in fact, long considered inquiries in the life sciences, particularly those regarding generation, to be essentially closed off from inquiry. Physics was easily reducible to a set of mechanical causes, but already in 1755 Kant had asked, “Can we claim such advantages about the most insignificant plant or insect? Are we in a position to say: *Give me matter and I will show you how a caterpillar can be created?* Do we not get stuck at the first step due to ignorance about the true inner nature of the object and the complexity of the diversity contained in it?” (UNH, 1:230). The problem of generation was simply too complex, and our ignorance regarding its processes too complete, to admit any kind of certainty akin to that achieved in the physical sciences.

In 1763 Kant returned to the question, this time examining with greater attention both the nature of the problem and the suggested routes for



understanding it.<sup>9</sup> For our purposes, it is enough to identify the options as Kant reported on them. And to simplify matters, it is also enough to just say that at mid-century there were essentially two strategies for approaching the problem of generation, and that the key to finding any sympathy for either of these theories is to understand the difficulty of their task. First, a theory had to explain the source of form: what was the plan by which material turned into a recognizable member of a species, where did such a plan come from, and how was it specifically related to matter? Second, a theory had to describe the means by which the plan was enacted: was it by mechanical processes, by gravitational, magnetic, or organic forces, or even just via direct action by God? The task, in other words, was daunting, and it was easy to understand why Leibniz, for example, had called for the rehabilitation of the discredited notion of an entelechy when facing it.

In the 1760s, researchers were divided between a theory that resolved the problem of form and one that focused instead on the problem of understanding the forces responsible for the generation, growth, and repair of individuals according to their form. Without some kind of intelligent agency such as a soul or entelechy to guide formation, the dominant view took the best explanation to be that all forms had been set by God at the point of creation. In the earliest and most enduring instantiation of this view, theorists argued that God had in fact created each individual at the beginning of the world, leaving nature only the task of a mechanical expansion of these “preexistent” individuals over time. The main line of attack on this theory came from researchers pointing to cases of joint inheritance. If the preexistent individual had been formed at the beginning of time, they argued, then this individual must already be complete. How, then, they asked, could preexistence theory account for phenomena exhibiting joint inheritance, such as that displayed by mixed-race children? This was a potent line of attack, but those who emphasized instead the motion of forces – be they mechanical, organic, or just general “principles of life” – faced an equally important counterattack regarding their inability to explain the source of form.

When Kant rehearsed the options as he saw them in 1763, he was sensitive to the difficulties facing theorists on all sides. Remarking that

<sup>9</sup> The history of the various debates regarding organic generation is complicated, but has been dealt with extensively. I describe Kant’s relationship to the life sciences of his day in *Kant’s Organicism*, but for a general overview, three places to start are Roger, *The Life Sciences in Eighteenth-Century French Thought*; Gasking, *Investigations into Generation 1651–1828*; and Roe, *Matter, Life, and Generation*. Justin Smith’s edited collection on *The Problem of Animal Generation in Early Modern Philosophy* is also helpful.



“it would be absurd to regard the initial generation of a plant or an animal as a mechanical effect incidentally arising from the universal laws of nature,” Kant considered two theories of generation in turn. The first was preexistence theory, which, as Kant put it, demanded that “each individual member of the plant and animal kingdoms is directly formed by God, and thus of supernatural origin, with only the propagation [*Fortpflanzung*], that is, only the transition from time to time to the unfolding [*Auswicklung*] of individuals being entrusted to a natural law” (OPA, 2:114). The second theory represented an intermediate position, for it appealed to God’s original agency when producing species lines – a type of generic, as opposed to individual, preformation guaranteeing the reproduction of kinds – but it argued also for the subsequent generation of individuals according to nonsupernatural means. Is it possible, Kant asked when introducing this option, that “some individual members of the plant and animal kingdoms, whose origin is indeed directly divine, nonetheless possess the capacity, which we cannot understand, to actually generate [*erzeugen*] their own kind in accordance with a regular law of nature, and not merely to unfold [*auszuwickeln*] them?” (OPA, 2:114).

Kant went on to rehearse positions that would seem to be examples of this, all the while being critical of the specific attempts made in each case to provide a description of the means by which individuals would be subsequently generated (OPA, 2:115). But while Kant rejected such accounts as “utterly unintelligible” and “entirely arbitrary inventions,” he was equally resistant to the first hypothesis and its recourse to a supernatural origin for every individual member of a species. On this theory, human investigation was completely foreclosed, though it could be, as Kant remarked, “supposed that the natural philosophers have been left with something when they are permitted to toy with the problem of the manner of gradual reproduction [*Fortpflanzung*]” (OPA, 2:115).<sup>10</sup> What Kant wanted was a means of avoiding a supernatural solution even if all of the contrasting accounts of individual generation had so far failed. Indeed, as Kant wryly observed, an adequate mechanical explanation of fermenting yeast had yet to be found, but that had hardly led people to suggest supernatural grounds for its existence; the case of plants and animals should be no

<sup>10</sup> In Herder’s notes from Kant’s lectures on metaphysics during this period, it is clear that, without naming them, Kant could have understood the specific difficulty facing preexistence and epigenesis to be the lack of any decisive evidence in favor of one position over the other (MH, 28:889). As Herder reported it, the main conceptual difficulty facing the life sciences was twofold, at least so far as Kant understood their attempt to discern the processes of generation, namely the conception of freedom, on the one hand, and its generation in the world, on the other.

different. Unless one was willing to rely on a continuous divine agency, Kant concluded, “there must be granted to the initial divine organization of plants and animals a capacity, not merely to develop [*Auswickelung*] their kind thereafter in accordance with a natural law, but truly to generate [*erzeugen*] their kind” (OPA, 2:1115).

This two-step solution began with an “initial divine organization” of the species lines – a move that was meant by Kant to keep the “tincture of the supernatural” to a bare minimum – that was then followed by nature’s capacity to exhibit thereafter a set of law-like processes by which individuals could actively generate successive members of a species line according to their type. It was a solution that relied on much the same strategy that Kant would offer as a corrective to Herder’s account in 1785. For there, too, Kant suggested that he could agree with Herder’s attention to the organic force at work in natural productions so long as “the cause organizing itself *from within* were limited by its nature only perhaps to a certain number and degree of differences in the formation of a creature (so that after the institution of which, it were not further free to form yet another type under altered circumstances),” and also so long as the means by which these limitations of the “self-forming faculty” occurred remained outside the bounds of knowledge (RHe, 8: 62–3).

This was also on display when Kant put together his first essay on race as part of an announcement for his physical geography course in 1775 (later revising it for publication in 1777).<sup>11</sup> In the account of *Of the Different Races of Human Beings* (ODR, 2:427–43), Kant appealed to “germs

<sup>11</sup> Kant’s announcement: “Of the Different Races of Human Beings to Announce the Lectures on Physical Geography of Immanuel Kant, Professor Ordinarius of Logic and Metaphysics.” The Academy edition of Kant’s course announcement offers an amalgamation of two editions. The opening and closing paragraphs directly concern details of the course and are from 1775; the body of Kant’s piece, however, comes from the 1777 edition, which is the version published by Cambridge in *Anthropology, History, and Education* (ODR, 2:427–43). Kant had prepared the separate, expanded version of the essay for J. J. Engel, *Der Philosoph für die Welt* (1777), part 2, pp. 125–64. Although Kant was invited by the publisher and book merchant Johann Breitkopf to prepare an extended treatment for inclusion in an anthology, he declined in 1778, explaining that his “views would have to be expanded and the play of races among animals and plant species considered explicitly, which would require too much attention from me and necessitate new and extensive reading rather outside my field, since natural history is not my specialty but only a hobby and my principle aim with respect to it is to use it to extend and correct our knowledge of mankind” (Corr, 10:230). When Engel wrote to Kant the following year to see if Kant might have changed his mind (Corr, 10:254–5), he replied that he had since read Zimmermann’s *Geographische Geschichte des Menschen* (1778) and would have to engage in further reflection on the issue (Corr, 10:256). Zimmermann had explicitly discussed both Kant’s 1777 essay on race and Blumenbach’s 1776 *De generis*, so we might see this as our first evidence of Kant’s awareness of Blumenbach’s work. A translation of selections from Zimmermann’s text with extensive explanatory information is in Mikkelsen, *Kant and the Concept of Race*.

[*Keime*]” and “dispositions [*Anlagen*]” as the specific means by which organisms were able to adapt in the face of environmental pressures or “occasioning causes.” As mentioned earlier, in Kant’s initial presentation of this, the terms represented discrete biological functions: germs were responsible for the generation of new parts (more hair or feathers in winter), whereas dispositions modified existing parts (the thicker protective chaff of wheat in winter). Despite such specificity, however, the ontological status of these germs and dispositions went unstated in the text, given that Kant had positioned the inquiry as a whole in terms of the need to secure an explanation of natural phenomena that seemed to be otherwise inexplicable on the basis of either physics or chance alone. This seemed especially true in the case of the human species, given that, unlike any other species, it appeared to have the adaptive capacity to inhabit each and every reach and extreme offered up by the planet. For Kant, it was impossible to imagine that chance alone could have prepared the species for such geographic distribution in the first place, let alone allowed for the unity of the species across such a diversity of its appearance. Indeed, it was precisely on the basis of this diversity that polygenists had in part waged their argument for there having been different points of origin for the species of mankind. Given his support for Buffon’s interfertility criterion for species membership, Kant was committed to the monogenesis of the species. His task was thus to explain such phenomena without recourse to the polygenesis solution. And he did so by appealing to germs and dispositions not as actual biological entities, but rather in light of the need to explain human distribution and its adaptive results in a manner that was non-haphazard; in a manner, in other words, that was purposive so far as we could understand our capacity to adapt as Nature’s special “provision” on behalf of humanity (ODR, 2:435–6).

In Kant’s review of Herder, his point regarding the need to explain form and the stability of the species lines in nature was similar to that regarding the need to explain both the fact of human diversity and the stability of this diversity in the races of humankind. When Kant returned to the question in his 1785 essay on the *Determination of the Concept of Human Race* (HR, 8:89–106), he was at pains to explain the stability of the race concept in the face of contrasting accounts. In 1775, Kant had been ready to name the four main races as he understood them to be products of environmental forces – climate, nutrition, geography (e.g., the specific mineral or chemical content of water, soil, and air) – and his choices followed Linnaeus in identifying the races in the older terms set by humoral theory. Adaptation was explained by the existence of germs and

dispositions, but racial stability was maintained so far as these germs, once realized, were then both set and passed on from parent to child. It was Kant's identification of color as the main racial biomarker that opened him up to challenges. As Linnaeus had by then taught generations of natural theorists, the main question for determining the difference between a species and a variety turned on the constancy of traits. And color, as many pointed out, seemed to be especially variable when looking at the spectrum of human appearance as a whole. As Herder would express it in Part 2 of the *Ideas*:

In short, there are neither four or five races, nor exclusive varieties, on this earth. Complexions run into each other: forms follow the genetic character, and upon the whole, all are at last but shades of the same great picture, extending through all ages, and over all parts of the Earth. They belong not, therefore, to properly systematic natural history, as to the physico-geographical history of the map.<sup>12</sup>

But Kant not only remained undeterred in his effort to provide a stable taxonomy for the races, he in fact adopted Linnaeus's requirement so far as to spend his time in the 1785 essay emphasizing the constancy of racial traits and describing an empirical test for race in terms of the "unfailing heredity" of racial color (HR, 8:100). Such strategy aside, Kant had still moved well past Linnaeus's own classification system regarding the varieties of men (not to mention Herder's dismissal of these), for by embracing the interfertility criterion, Kant had moved from the "school system of the description of nature," which concerned itself only with the external "marks" of a creature, to a genuine natural history of species by paying attention instead to the unfailing inheritance of traits within a phyletic line or a given race from its point of origin (ODR, 2:434; HR, 8:100).

If Kant's second account of race had not been enough to inspire a response, then the appearance of his *Conjectural Beginning of Human History* (CBHH, 8:125–30) in the following January's issue of the *Teutscher Merkur* seems to have been the last straw for Georg Forster, who cited them both together when attacking Kant later that year in the same journal. Though still quite young, in 1786 Forster was easily one of the more famous German naturalists of the era, and the ensuing dispute between him and Kant quickly brought Kant's theories of generation and race to the attention of a wide audience of medical faculty and other life science theorists engaged in the issues. Forster's fame had come with the

<sup>12</sup> Herder, *Outlines of a Philosophy of a History of Man*, p. 166.

highly successful publication of his two-volume account of the *Voyage Round the World* (1777) that he and his father had taken with Captain James Cook, on Cook's second voyage to the South Pacific from 1772–5. Johann Forster, Georg's father, had been the ship's naturalist, and the two had worked together collecting samples and annotating their catalog with careful observations of the lands, creatures, and people they came across during the expedition. Forster published a German translation of his travel narrative in 1778, and it was due to these volumes that he quickly came into contact with the leading naturalists at work in Germany and then secured his successive academic positions as a professor of natural history, first in Kassel (1779–84) and then at the University of Vilnius (1784–7). Forster's closest friend during these years was the Mainz anatomist Samuel Soemmerring, and once Forster realized that Vilnius would never become the center for natural history that he had hoped it would be when he moved there, he relocated to Mainz and worked there as the university librarian (1788–92) until his political activities in support of the Jacobins took his energies to Paris, where he died at the age of thirty-nine in 1794.<sup>13</sup>

Forster's connection to Soemmerring is important, for it reminds us of the ways in which the "Negro" body – the skin, the morphological shape of the skeleton, and especially the skull in terms of its cranial capacity and the shape of its jawline and brow – performed a number of roles in German science at this time. The relative indifference with which Blumenbach catalogued the results of Soemmerring's work in his 1785 review of Soemmerring's *Über die körperliche Verschiedenheit des Mohren vom Europäer* (*On the Bodily Difference between Moors and Europeans*) might have irritated Forster in defense of his friend, but its bland catalog remains nonetheless instructive regarding a broader effort on the part of anthropologists to generate a reliable biometric science for analyzing racial differences.<sup>14</sup> While each investigator had his preferred barometer for racial difference – skin color (Kant), facial angle (Camper), cranial capacity (Soemmerring), skull dimensions (Zimmermann,

<sup>13</sup> Soemmerring's inaugural dissertation at Mainz was an anatomical work entitled *Über die körperliche Verschiedenheit des Mohren vom Europäer* (1784), which he dedicated to Forster. This was republished in 1785 with "Negroes" replacing "Moors" in the title and came to be regarded as a definitive text on the subject.

<sup>14</sup> Blumenbach's review for the *Göttingische Anzeigen von gelehrten Sachen* appeared in the year's first volume, January 22, 1785, pp. 108–11. In June 1786, Forster wrote to Soemmerring regarding both his dislike of Kant's essay on race and the tone taken in Blumenbach's review of Soemmerring's dissertation (see Mikkelsen, *Kant and the Concept of Race*, p. 261). Noting this, Norbert Klatt, the editor of Blumenbach's correspondence, sees Forster's response to Kant's piece as also containing a veiled critique of Blumenbach. See Klatt, "Johann Friedrich Blumenbach als ungenannter Gegner."

Blumenbach), brain tissue (Meiners) – the goals were various. Some researchers believed in the monogenesis of the human species (Kant, Soemmerring, Camper, Blumenbach), and some turned to morphological features (Zimmermann, Soemmerring, Camper, Blumenbach) or interfertility (Kant, Girtanner) to establish racial boundaries, even while arguing for the unity of the species across racial lines. This argument could be established on the back of an empirical search for a uniquely human trait – the compactness of the mucous membrane, to use Blumenbach’s example – that would distinguish species members from the apes. Or it could be led by a theoretical notion, as in the case of Camper’s efforts to find evidence for a transcendental morphology or archetype revealed by each member of a given species. At the same time, there were researchers who remained unconvinced regarding the empirical evidence for the monogenesis of the species, and proposed either the likelihood of polygenesis (Forster) or its fact (Voltaire, Kames, Meiners). And all of this was complicated by respective beliefs in a hierarchy of the races, whether that was in terms of beauty (Forster, Blumenbach) or mental disposition (Soemmerring, Camper, Kant), and by respective attitudes toward the abolition of the slave trade, whether on grounds that were egalitarian (Blumenbach), commercial (Kant), humane (Herder), or due to a sense of moral duties regarding stewardship over one’s inferiors (Forster).

In 1786, Forster published his response to Kant in two parts under the title “Noch etwas über den Menschenrasse” (“Something more about the human races”).<sup>15</sup> Although this review has typically been glossed as an empiricist’s rejection of Kant’s transcendental approach, such a view is in fact incorrect, for it was Kant’s empirical test for species membership that drew Forster’s attention. This is not to say that Forster was not also critical of Kant’s armchair reliance on secondhand accounts for developing his anthropological views, but apart from those researchers actually engaged in the messy business of comparative anatomy, few naturalists at the time could compare to Forster in terms of the breadth of his own empirical experience with foreign peoples. Even Blumenbach had adjusted his initial theory of the varieties of man in light of Forster’s report on Cook’s voyage to the South Pacific.

For our purposes, it is enough to note Forster’s central complaint regarding Kant’s commitment to the unfailing inheritance of color as a test for racial makeup. In Forster’s experience, human color variation proceeded along a spectrum that seemed to be wholly determined by climactic forces and geographic location. How could Kant know whether nature had indeed

<sup>15</sup> This piece is translated by Mikkelsen in *Kant and the Concept of Race*, pp. 143–67.

given humans the capacity to adapt only once? Why not assume instead that humans were capable of a “second transplanting,” or a third, etc.? The time frames for such investigations were too compressed, Forster argued, to say for certain that black Africans would not in fact turn white when transplanted to European soil. Kant’s attention to mixed-race children as an empirical test case for the inheritance of race was equally problematic. If we were to take members at the nearest extremes of any given race and have them reproduce, Forster argued, the “brown” color of the children would not signify in any meaningful way what their racial makeup might be. “My friend,” Forster suggested at this point, “[if you] want to survey in a compressed summation how it is we actually arrive at a determination of the distinguishing differences within human kind, then you should read Soemmerring’s ‘On the Bodily Difference of Negroes from Europeans.’”<sup>16</sup>

These comments shed light on how Kant chose to enlist Blumenbach’s expertise when writing a response to Forster in *Concerning the Employment of Teleological Principles in Philosophy* in 1788 (ETP, 8:157–84). While Kant took time to parse Forster’s criticisms as a demonstration of the difficulty, but not the impossibility, of using skin color as a test for racial inheritance (ETP, 8:171–2), on the whole, his piece was oriented by his long-held insistence regarding the need for natural historical investigations to be mindful of the limits of human understanding, limits which, when unheeded, led investigators always “from the fertile soil of the investigation of nature to the desert of metaphysics” (ETP, 8:180). The key to epistemic safety in such matters relied on an acknowledgment of the different kinds of appeals made by investigators in their research. Empirically verifiable claims were of one kind; as to appeals to final causes or purposes more generally, these either were offered as a deliberately chosen “teleological mode of explanation” or were guilty of enlisting precisely the kind of subreptive axioms that had so far littered the history of dogmatic metaphysics. Thus Soemmerring, as Kant read him, had misinterpreted his own results. For while there simply could be no empirical basis to the claim that the anatomy of the Negroes had suited them, in contrast to other races, to their land, one could on *teleological* grounds suggest that their skin had been a necessary adaptation for dealing with both the sun and the “noxious” chemicals in the African water and air (ETP, 8:170).

<sup>16</sup> Forster, “Something more about the human races,” translated in Mikkelsen, p. 154. Forster urged Kant to consult also Camper and Herder (!) for edification. He later apologized for the tone taken in this piece, however, blaming it on a physical indisposition affecting everything he had produced that year (Corr, 11:220).



As for Forster, he was guilty of a mistake along the same lines as Herder not only in emphasizing a gradation of forms in nature, but in proposing a creation story without any attention to the clear demarcations necessary for ensuring the reproductive stability of the species lines. And so, after quoting Forster's account, whereby "[t]he earth in labour, which let originate animals and plants, without being generated by beings of their own kind, from the soft mother's womb fructified by sea mud, the local generations based thereupon, when *Africa* produced its human beings (the Negroes), *Asia* its human beings (all others)" (ETP, 8:179), Kant referred readers to an "insightful man" who agreed with him in rejecting precisely these points. This reference to Blumenbach was clearly a tactical maneuver on Kant's part, since by pointing to the *other* star associated with Göttingen, he was not only bolstering his own position but informing Blumenbach that on this issue he, in fact, belonged on Kant's side. For as Kant pointed out in a footnoted remark, Blumenbach had already issued a stinging critique of Bonnet's notion of a chain of being and, like Kant, had rejected hylozism by specifying "the *formative drive*, through which he brought so much light into the doctrine of generations" as belonging "not to inorganic matter but only to the members of organized beings" (ETP, 8:180).

Kant's footnote had its effect, for Blumenbach repaid the favor by sending the second edition of his *Bildungstrieb* essay to Kant as a gift.<sup>17</sup> And Kant, in turn, had his publisher send Blumenbach a copy of the *Critique of the Power of Judgment*, followed by a personal letter thanking him for his essay, and telling him, "I have found much instruction in your writings, but the latest of them has a close relationship to the ideas that preoccupy me: the union of two principles that people have believed to be irreconcilable, namely the physical-mechanistic and the merely teleological way of explaining organized nature. Factual confirmation is exactly what this union of the two principles needs" (Corr, 11:185). What is particularly interesting here is not Kant's compliment, but rather his *corrective* regarding Blumenbach's notion. For Blumenbach, at this point certainly, but probably later as well, was not advancing a "teleological" way of explaining organized nature. On the contrary, he explicitly understood the *Bildungstrieb* to be working constitutively in the case of organic life.<sup>18</sup> As with

<sup>17</sup> Blumenbach, *Über den Bildungstrieb*, 2nd edn., 1789.

<sup>18</sup> Richards describes this in "Kant and Blumenbach on the *Bildungstrieb*." A careful reconstruction of Blumenbach's evolving approach to the *Bildungstrieb* is in McLaughlin, "Blumenbach und der Bildungstrieb: Zum Verhältnis von epigenetischer Embryologie und typologischen Artbegriff."

Kant's response to Herder, therefore, we must recognize Kant's coaching here regarding the proper approach to notions of a "formative drive."

Kant was even more explicit in the third *Critique*. For after surveying the field of contemporary anthropology – with implicit nods to the discoveries yielded by comparative anatomists like Zimmermann and Soemmerring, to Camper's archetype, and even to the notion of a primordial womb of the kind described by Herder and Forster – Kant reminded readers that all of this presupposed an "original organization that itself uses mechanism" for the subsequent conveyance of an initially organized form (CPJ, 5:418–19). And not only this; once the forms or original organizations had been established and local adaptations made, investigators had to assume that the species lines had been set if there was to be any hope for establishing natural history as a taxonomical and, also important, a *genealogical* science founded on the stable inheritance of traits. Thus, even the chaotic womb of mother earth was understood to have eventually "rigidified, ossified, and confined itself to bearing definite species that would no longer degenerate, so that diversity remained as it had turned out when that fertile formative force ceased to operate" (CPJ, 5:419). Kant could not have been clearer regarding the need to maintain form within species lines, but he was just as clear when it came to the epistemic status of this investigation.

It was thus in the next section, fittingly entitled "On the association of mechanism with the teleological principle in the explanation of a natural end as a product of nature," that Kant discussed Blumenbach's *Bildungstrieb*. Here, as in the 1788 essay, Kant offered praise for Blumenbach's rejection of hylozoism, but now also for the epistemic modesty with which Blumenbach had left the precise workings of the informing of nature "inscrutable," even as he had nonetheless rejected the preexistence theory of generation for its failure to account for joint inheritance. Kant was careful, however, in how he positioned his support for the *Bildungstrieb*, offering once more a corrected version of it. For while Blumenbach had not (or not yet) considered the notion to be *also* teleological in its effort to describe organic generation, he had also effectively sidestepped the conceptual problem of linking form and force. In Blumenbach's presentation of the matter, form was a given, not a problem to be resolved.<sup>19</sup> Kant offered, therefore, a significant emendation when aligning Blumenbach's force with his preferred theory of "epigenesis" or "generic preformation,"

<sup>19</sup> This was, of course, Caspar Wolff's great complaint against Blumenbach. See Roe, *Matter, Life, and Generation*, especially pp. 122 and 151.

according to which “the productive power of the generating beings, and therefore the form of the species, was preformed *virtualiter* in the intrinsic purposive predispositions imparted to the stock” (CPJ, 5:423).

Kant’s support for Blumenbach must be recognized for what it was: a published endorsement that not only was extremely rare in Kant’s works, particularly for a living contemporary, but, moreover, was not relegated to a passing footnote, but whose significance meant its inclusion in the main body of the text. It comes as no surprise, therefore, to learn of Blumenbach’s ecstatic response (Corr, 11:211). This was sent along with Blumenbach’s return gift, a copy of his newly published *Beiträge zur Naturgeschichte* (*Contributions to Natural History*).<sup>20</sup> The copy was carried by Kant’s one-time amanuensis, Johann Jachmann, a medical student who was traveling back to Königsberg from the university in Edinburgh with his roommate, Christoph Girtanner. It was 1790, and the pair had traveled through revolutionary France, stopping at Mainz, where they met Soemmerring and Forster, before staying in Göttingen for some weeks. Kant’s letter of introduction opened doors for Jachmann, as he visited with Blumenbach and attended Lichtenburg’s lectures. But here the person to notice was the roommate, Girtanner. It was Girtanner who later received endorsements from Kant (Anth, 7:320) and Blumenbach,<sup>21</sup> for his effort to marry Kant’s account of the germs and dispositions responsible for maintaining the species lines to Blumenbach’s *Bildungstrieb* as the means by which these forms could be instantiated in individual members.<sup>22</sup> As for Blumenbach, Kant’s corrective to the *Bildungstrieb* appeared to have worked. For in subsequent discussions, Blumenbach never failed to include references to Kant’s endorsements in 1788 and 1790, and Blumenbach even began to describe his own position in terms of its joining together the “physic-mechanical with the purely teleological.”<sup>23</sup>

<sup>20</sup> Blumenbach, *Beiträge zur Naturgeschichte* (vol. 1, Göttingen, 1790; 2nd edn., 1806; vol. 2, Göttingen, 1811). The 1806 edition is translated by Thomas Bendyshe in *The Anthropological Treatises of Johann Friedrich Blumenbach*; however, the 1790 edition sent to Kant contains significant differences, particularly regarding the amount of supporting empirical evidence amassed by Blumenbach to demonstrate the manner in which Negroes are equal to the other races in their capacity for feeling, intelligence, business acumen, music, and even philosophy. We cannot be certain that Kant received this piece, however, since it was sent to him via Johann Jachmann, who explained in a letter to Kant that he would give it to him later, since Kant probably already had a copy (Corr, 11:222). There is no indication in Warda’s inventory of Kant’s books that Kant did own a copy, though this is neither singular nor definitive regarding such matters.

<sup>21</sup> Blumenbach, *Handbuch der Naturgeschichte* (1807), p. 25.

<sup>22</sup> See Girtanner, *Über das Kantische Prinzip für die Naturgeschichte* (1796). Further discussion of this is in Sloan, “Buffon, German biology, and the historical interpretation of biological species.”

<sup>23</sup> For example, *Institutions of Physiology* (1810), trans. Elliotson, p. 336.

And while Blumenbach never adopted Kant's empirical test for racial difference, he softened his earlier stance against a reliance on color in line with Kant's 1788 response to Forster.<sup>24</sup> And Kant? Kant mentioned Blumenbach only a few times again, and these in passing, grouping Blumenbach's discussion of the early revolutions undergone by the earth with similar observations made by Camper.<sup>25</sup> We must conclude, therefore, that when all was said and done, this was not a case of "historical misunderstanding," at least not on Kant's part. Kant was clear regarding the value of Blumenbach's support, and indeed the role he played in German anthropology. Blumenbach was a scientist Kant had hoped to shape in line with his own views on generation and race, and the history shows that, to a real extent, Kant was successful in achieving this goal.

<sup>24</sup> See, for example, his 1795 essay on the varieties of men; *The Anthropological Treatises of Johann Friedrich Blumenbach*, p. 207.

<sup>25</sup> See Anth, 7:299; CF, 7:89; R 102, 14:619. By comparison, see a 1799 letter to Kant from a former student, Lehmann, who tells him of Blumenbach's urging regarding the publication of his lectures on physical geography so that others might benefit from them as Blumenbach had, particularly with respect to Kant's account of race (Corr, 12:274–5).