

*On the use of teleological principles
in philosophy*

EDITOR'S INTRODUCTION

After *Of the Different Races of Human Beings* (1775; 2nd edn 1777) and *Determination of the Concept of a Human Race* (1785), both of which are contained in the present volume, Kant published his third and final essay on the natural history of the human species, entitled *Über den Gebrauch teleologischer Principien in der Philosophie*, in January and February of 1788 in the *Teutscher Merkur* (German Mercury), issues nos. 1 and 2 (1st quartal, pp. 36–52 and pp. 107–36).¹ The immediate occasion was the publication of an essay in the same journal in two installments in the fall of the previous year (October 1786, pp. 57–86 and November 1786, pp. 150–66), entitled *Noch etwas über die Menschenracen. An Herrn Dr. Biester* (Something Further on the Human Races. To Dr. Biester²). The author of the critical essay was Georg Forster (1754–94), who had accompanied his father, Johann Reinhold Forster, on Captain James Cook's second voyage around the world in 1772–5, later assumed a professorship in natural history in Vilnius, Lithuania (at the time part of the Russian Empire) and who had moved to Mainz, Germany, in late 1788, where he was to turn into a fervent supporter of the French revolution.³ Forster's essay contained objections to Kant's concept of a human race, along with a mention of and two passing references to Kant's slightly earlier essay, *Conjectural Beginning of Human History* (1786), which had also appeared in the *Teutscher Merkur* and which is also contained in the present volume.

In addition to providing his response to Forster, the essay *On the Use of Teleological Principles in Philosophy* also served Kant to express publicly his appreciation of the work of another critic of his, Karl Leonhard Reinhold (1758–1823), who had approached Kant in October 1787 to identify himself as the author of the anonymously published *Briefe über die kantische Philosophie* (Letters on the Kantian Philosophy) that had been appearing in the *Teutscher Merkur* beginning in August 1786.⁴ Reinhold, who had assumed a professorship in philosophy at the University of Jena in the summer of 1787 that had been offered to him in part on the basis of his pioneering work in expositing and explaining Kant's critical

philosophy, had asked Kant for a public statement endorsing his reading of Kant and for a brief clarification about an apparent contradiction that he and others had discovered between two passages in works by Kant.⁵ Kant agreed to Reinhold's request and sent him his essay for publication in the very journal that had launched the wider recognition of the critical philosophy.

Virtually the entire essay, *On the Use of Teleological Principles in Philosophy*, is devoted to Kant's reply to Forster. Forster had objected to the precedence of theory over observation in Kant and to the exclusive focus on skin color as the criterion of racial differentiation among the human species. Against Kant, he had maintained the exclusive influence of climate on skin coloration, leaving out entirely the role of predisposition ("germs") in defining the possible range of skin coloration. Accordingly, Forster had disputed the applicability of Kant's definition of a race to actually existing human populations. Most importantly, unlike Kant, who had insisted on the unity of the species in terms of its natural history (a position now referred to as "monogeneticism"), Forster maintained that human beings, while belonging to one and the same species, did not have the same origin ("polygeneticism") and insisted in particular on the special status of the Negro.

Kant's reply, which is conciliatory in tone, addresses each of the methodological and substantial points of Forster's attack, clearing up linguistic and conceptual misunderstandings on Forster's part and restating his definition of a human race and his theory about the interaction of generic predispositions (to call them "genetic" would be an anachronism) and specific climatic conditions in the gradual differentiation of the human species. The conceptual innovation in Kant's third essay on the natural history of the human species is the explicit recourse to considerations of purposiveness in natural science. While stressing the inscrutability of the basic powers underlying nature, Kant defends the need as well as the justification for introducing and applying a heuristic principle of purposiveness in the investigation of nature in general and in that of living beings in particular.

The use of the plural, "teleological principles," in the title of Kant's essay refers to different areas in which recourse to the principle of purposiveness is indicated. More specifically, Kant distinguishes between natural teleology (natural science), teleology of freedom ("morals") and the teleology of nature in light of the final purpose of freedom ("transcendental philosophy"). The latter perspective foreshadows Kant's exhaustive exploration of the forms of purposiveness in the *Critique of the Power of Judgment* (1790), in particular in its second part, the "Critique of the Power of Teleological Judgment."⁶ A different direction was given to Kant's teleological account of the natural history of the human species in a work by the physician and writer, Christoph Girtanner (1760–1810),

entitled *Ueber das Kantische Princip für die Naturgeschichte* (On the Kantian Principle for Natural History), in which the author expanded Kant's developmental perspective to the animal and plant kingdom.

In addition to a brief indirect reference to the *Letters on the Kantian Philosophy* at the beginning of the essay,⁷ the discussion of Reinhold is limited to a short paragraph toward the end of the essay, in which Kant expresses his gratitude and admiration for Reinhold's lucid and perceptive presentation of the critical philosophy in a popular vein.

The translation of *Über den Gebrauch teleologischer Principien in der Philosophie* is based on the presentation of the work in AA 8: 157–84 and was undertaken by Günter Zöllner. Special care has been taken in rendering Kant's highly differentiated terminology for the differentiation of biological species. Each such term is accompanied by a linguistic footnote placed at its first occurrence in Kant's text and is also listed in the glossary.

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If one understands by *nature* the sum-total of all that exists as determined by laws, taking together the world (as nature properly so called) and its supreme cause, then the investigation of nature (which in the first case is called physics, in the second metaphysics) can pursue two paths: either the merely *theoretical* path or the *teleological* path, and with respect to the latter either as *physics*, using only such ends for its intention that can be known to us through experience, or as *metaphysics* using for its intention, in accordance with its calling,^a only an end that is fixed through pure reason. Elsewhere I have shown that in metaphysics reason on the theoretical path of nature^b (with respect to the cognition of God) is not able to achieve its *entire* intention as wished, and that therefore only the teleological path remains for it – yet in such a way that it is not the natural ends, which rest only on arguments from experience,^c but an end that is given and determined a priori through pure practical reason (in the idea of the highest good) that may supplement the shortcoming of the deficient theory. In a small essay on the human races¹ I have attempted to prove a similar warrant, indeed a need to start from a teleological principle where theory abandons us. But both cases contain a demand to which the understanding submits only reluctantly, and which can give sufficient occasion for misunderstanding.

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In all examination of nature reason rightly calls first for theory and only later for the determination of ends.^d No teleology or practical purposiveness can compensate for the lack of the former. We always remain ignorant with respect to the efficient causes, no matter how evident we can make the suitability of our presupposition with final causes, be they of nature or of our will. This complaint seems to be most founded where (as in the case of metaphysics) practical laws even have to precede in order to first indicate the end for the sake of which I venture to determine

^a *Berufe.*

^b *auf dem theoretischen Naturwege.*

^c *Beweisgründen der Erfahrung.*

^d *Zweckbestimmung.*

8: 160 the concept of a cause – which concept thus seems not at all to concern the nature of the object but seems only to be an occupation with our own goals and needs.

It is always difficult to agree about principles in those cases where reason has a double, mutually limiting interest. But it is even difficult just to understand each other regarding the principles of this kind because they concern the very method of thinking, prior to the determination of the object and because conflicting claims of reason render ambiguous the viewpoint from which one has to consider one's object. In the present journal two of my essays about two subjects that are very different and of quite unequal importance have been subjected to an astute examination.² In one of them I have *not* been *understood*, although I expected to be understood, while in the other one I have been *understood well* beyond all expectation; both by men of excellent talent, youthful power, and blossoming fame. In the former I came under suspicion for wanting to answer a question of the *physical* investigation of nature through documents of religion; in the latter I was freed of the suspicion of wanting to encroach upon religion by proving the insufficiency of a *metaphysical* investigation of nature. In both cases the difficulty in being understood is grounded in the warrant, which has not yet been sufficiently elucidated, of being allowed to use the teleological principle where sources of theoretical cognition^a are not sufficient. Yet this use has to be restricted to the extent that the right of *precedence* of the theoretical-speculative investigation to first try out its entire faculty in the matter is secured, and furthermore that subsequently this freedom shall remain available to it at all times (where in the case of the metaphysical investigation it is rightfully demanded of pure reason that it antecedently justify this and its presumption in general to decide about anything, in order to be able to count on confidence, and in the process reveal completely the *state of its faculty*^b). A large part of the dissension here stems from the concern about the encroachment that supposedly threatens the freedom of the use of reason. Once this concern is alleviated, I believe I can easily clear away the obstacles to unanimity.

8: 161 In the *Teutscher Merkur*, October and November 1786, Privy Councillor Georg Forster advances objections against an explanation of my previously expressed opinion about the concept and the origin of the *human races* in the *Berlinische Monatsschrift*, November 1785 – objections which, I believe, derive only from the misunderstanding of the principle from which I start. To be sure, the famous man right away finds it awkward to establish a *principle* in advance which is supposed to guide the investigator of nature even *in searching* and observing, and especially

^a *theoretische Erkenntnisquellen.*

^b *Vermögenszustand.*

a principle that would orient observation toward a *natural history* to be furthered by this procedure, in contrast to a mere *description of nature*; moreover, he finds this distinction itself illicit. Yet this dissension is easily removed.

With regard to the first scruple, it is undoubtedly certain that nothing of a purposive nature could ever be found through mere empirical groping without a guiding principle of what to search for; for only *methodically* conducted experience can be called *observing*. I do not care for the mere empirical traveler and his narrative, especially if what is at issue is a coherent cognition which reason is supposed to turn into something for the purpose of a theory. Such a traveler will usually answer when asked about something: I would have been able to notice that if I had known that I was going to be asked about it. After all, Herr F. himself follows the lead of *Linné's* principle of the persistence of the character of the pollinating parts of plants,³ without which the systematic *description of nature* of the vegetable kingdom would not have been ordered and enlarged in so praiseworthy a manner. To be sure, it is unfortunately all too true that some are so careless as to import their ideas into the observation itself (and to take the similarity of those characters, in accordance with certain examples, for an indication of the similarity of the powers of the plants, as apparently even happened to the great authority on nature^a). And the lesson for *rash reasoners*^b (which presumably concerns neither of the two of us) is equally well founded. Yet this misuse cannot suspend the validity of the rule.

Now as far as the doubted, even outright rejected difference between description of nature and natural history is concerned: if one were to understand by the latter a *narrative* of events in nature^c not to be reached by any human reason, e.g., the first origin of the plants and animals, then indeed that would be, as Hr. F. puts it, a science for gods, who were present then or were even the authors, and not one for human beings. Yet *natural history* would only consist in tracing back, as far as the analogy permits, the connection between certain present-day conditions of the things in nature and their causes in earlier times according to laws of efficient causality, which we do not make up but derive from the powers of nature as it presents itself to us now. Such would be a natural history that is not only possible but that also has been attempted often enough, e.g., in the theories of the earth (among which that of the famous *Linné* also finds its place⁴). Moreover, even Hr. F.'s surmise about the first origin of the *Negro* certainly belongs not to the description of nature but to natural history. This difference is grounded in the

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^a *Naturkennner*.

^b *rasche Vernünftler*.

^c *Naturbegebenheiten*.

constitution of things, and I demand nothing new thereby but merely the careful separation of one business from the other, since they are entirely *heterogeneous*, and, while one (the description of nature) appears as a science with all the splendor of a great system, the other (natural history) can only point to fragments or shaky hypotheses. Through this separation and through the presentation of natural history as a science of its own, although one that for now (and maybe forever) is realizable more in silhouette than in deed (and in which for most questions a *vacat*^a is likely to be found), I hope to bring it about that one does not with putative insight give credit to one discipline for something that actually only belongs to the other one, and that one gets to know more closely the extent of actual cognitions in natural history (for one possesses some) as well as the latter's limits, which lie in reason itself, together with the principles according to which natural history could be enlarged in the best possible manner. One must pardon me for this scrupulousness, considering that in other cases I have encountered a fair amount of harm from the carelessness of letting the boundaries of the sciences run into each other and have pointed that out not exactly to everyone's liking. Moreover, I have become totally convinced that through the mere separation of what is heterogeneous^b and what previously had been left in a mixed state,^c often a completely new light is cast upon the sciences – which may reveal quite a great deal of paltriness that previously was able to hide behind heterogeneous cognitions,^d but which also opens up many authentic sources of cognition where one would not at all have expected them. The biggest difficulty in this putative innovation lies merely in the name. The word *history*,^e taken to mean the same as the Greek *historia* (narrative, description), has been in use too much and too long for us easily to tolerate that it be granted another meaning which can designate the investigation of origin in nature,^f especially given the fact that finding another suitable technical expression for the latter meaning is not without difficulty.* But the linguistic difficulty in the distinction cannot suspend the difference in the things.^g Presumably such a dissension over a quite unavoidable deviation from *classical* expressions has also been the cause for the disunion over the matter itself in the

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* I would propose the word *physiography* (*Physiographie*) for the description of nature and the word *physiogy* (*Physiogie*) for natural history.

^a Latin for “remains empty,” designating a lack of answer.

^b *Scheidung des Ungleichartigen.*

^c *Gemenge.*

^d *fremdartige Kenntnisse.*

^e *Geschichte.*

^f *Naturforschung des Ursprungs.*

^g *Sachen.*

case of the concept of a *race*. What happened to us here is what *Sterne* says on the occasion of a physiognomic dispute, which, according to his whimsical ideas, caused a tumult among all the faculties of the University of Strasburg: The logicians would have decided the matter, *had they not come across a definition*.⁵ What is a *race*? The word does not figure in a system of the description of nature, therefore presumably the thing itself is nowhere in nature either. Yet the *concept* designated by this expression is well grounded in the reason of each observer of nature who infers from a hereditary particularity^a of different interbreeding animals^b that does not at all lie in the concept of their species^c a common cause,^d namely a cause that lies originally in the phylum of the species. The fact that this word does not occur in the description of nature (but instead of it that of variety), cannot prevent the observer of nature from finding it necessary with respect to natural history. To be sure, he will have to determine the word clearly for this purpose; and this we would like to attempt here.

The name *race*, as *radical* peculiarity indicating a common phyletic origination^e and at the same time permitting several such persistently hereditary characters^f not only of the same animal species but also of the same phylum, is quite suitably conceived. I would translate it through *subspecies*^g (*progenies classifica*^h), in order to distinguish a race from the *degeneration*ⁱ (*degeneratio s. progenies specifica*^j)*, which one cannot admit because it is contrary to the law of nature (in the preservation of its kind in unchangeable form^k). The word progenies indicates that races are not characters that are originally distributed through so many phyla

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* The appellations of the *classes* and *orders* express quite unambiguously a merely logical separation which *reason* makes among its concepts for the purpose of comparison only. However, *genera* and *species* can also refer to the *physical* separation which *nature* itself makes among its creatures with respect to their *generation* (*Erzeugung*). Thus the character of the race can be sufficient for classifying creatures in accordance with it, but not for making a special *kind* (*Species*) out of them, since the latter could also refer to a separate phyletic origination, which we do not want to be understood by the name of a race. It needs no explaining that we here take the word class not in the extended meaning in which it is taken in *Linne's* system; but we also use it for division with an entirely different intention.

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^a *sich vererbende Eigentümlichkeit.*

^b *vermischt zeugenden Tieren.*

^c *Gattung.*

^d *Gemeinschaft der Ursache.*

^e *Abstamm.*

^f *beharrlich forterbende Charaktere.*

^g *Abartung.*

^h Latin for "progeny that establishes a class."

ⁱ *Ausartung.*

^j Latin for "degeneration or progeny that establishes a species."

^k *Erhaltung ihrer Spezies in unveränderlicher Form.*

as kinds of the same species^a but rather characters that develop only over the course of generations,^b hence not different *kinds* but *subspecies*, yet so determinate and persistent that they justify a distinction in terms of classes.

Following these preliminary concepts, the *human species* (understood in accordance with its universal marks in the description of nature) could be divided in a system of natural history into *phylum* (or phyla), *races* or subspecies (*progenies classifica*) and different *human sorts* (*varietates nativae*^c), the last of which do not contain unailing marks that are hereditary according to a law to be specified and thus are not sufficient for a division into classes either. Yet all of that is so far merely an idea of the way in which the greatest degree of manifoldness in the generation^d can be united by reason with the greatest unity of phyletic origin.^e Whether there really is such an affinity in the human species must be decided through the observations that make known the unity of the phyletic origin. And here one sees clearly that one must be guided by a determinate principle merely in order to *observe*, i.e., to pay attention to that which could indicate the phyletic origin, not just the resemblance of characters, since in that case we are dealing with a problem^f of natural history, not of the description of nature and of mere methodical nomenclature.^g Someone who has not made his investigation according to that principle will have to search again; for what he needs in order to decide whether there is a real or merely a nominal affinity among the creatures will not present itself to him on its own.

8: 165 There can be no more certain marks of the diversity^b of the original phylum than the impossibility of gaining fertile progeny through the mixing of two divisions of human beings that are different in hereditary terms. However, if such a mixing succeeds, then even the greatest difference of shape is no obstacle to finding that their common phyletic origin for them is at least possible. For just as they can still *unite* through generationⁱ into a product that contains characters of both, despite their diversity, so they were able to *divide* through generation^j out of one *phylum*, which had the predispositions for the development of both characters originally hidden in it, into that many races. And reason will not

^a als Spezies derselben Gattung.

^b in der Folge der Zeugungen.

^c Latin for “innate varieties.”

^d Zeugung.

^e Abstammung.

^f Aufgabe.

^g methodischen Benennung.

^h Verschiedenheit.

ⁱ Zeugung.

^j Zeugung.

without need start from two principles if it can make do with one. But the certain sign of hereditary peculiarities, as the marks of just so many races, has already been named. Now we still need to note something about the hereditary *varieties* that give rise to the denomination of one or the other sort of human beings (family or ethnic sort).^a

A variety is the hereditary peculiarity that is not classificatory,^b since it is not propagated unfaillingly; for such a persistence of the hereditary character is required to justify the division into classes even in the description of nature. A shape that in propagation reproduces the character of the closest parents only *sometimes*, and for the most part only unilaterally at that (by taking after the father or the mother), is no mark for recognizing the phyletic origination of both parents – e.g., the difference between blondes and brunettes. Likewise, the race or subspecies is an unfailling *hereditary* peculiarity which justifies the division into classes but yet does not warrant the division into kinds,^c since the unfailling half-breed regeneration^d (hence the *melting together* of the differential characters) does not yet preclude to view their inherited difference as originally *unified* in their phylum in mere predispositions and as developed and *separated* only gradually in procreation. For one cannot turn a family of animals^e into a special kind^f if it belongs with another one to one and the same system of generation of nature.^g Thus in natural history species and kind^b would mean one and the same thing, namely the hereditary peculiarity that is not consistent with a common phyletic origination. By contrast, the hereditary peculiarity that is so compatible is either necessarily hereditary or not. In the first case it constitutes the character of the *race*, in the second that of the *variety*.

With respect to what can be called *variety* in the human species, I only note here that also in this case nature has to be viewed not as forming in complete freedom but as only developing and as predetermined with respect to those varieties through original dispositions, just as is the case with the racial characters. For in the variety, too, there is to be found purposiveness and corresponding suitability, which cannot be the work of chance. Every portrait painter who reflects about his art can confirm what Lord *Shaftesbury* already noted,⁶ namely, that there is a certain originality in every human face (its design, as it were), which marks the individual

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^a *Menschenschlags . . . Familien- und Völkerschlags.*

^b *klassifisch.*

^c *ist nicht spezifisch.*

^d *unausbleiblich halb-schlüchtige Nachartung.*

^e *Tiergeschlecht.*

^f *besonderen Spezies.*

^g *Zeugungssystem der Natur.*

^b *Gattung und Spezies.*

as destined^a for particular ends which it does not have in common with others, although deciphering these signs exceeds our faculty. One can tell that an image painted from life and well rendered is true, i.e., that it is not derived from the imagination. But in what does this truth consist? Without doubt in a determinate proportion of one of the many parts of the face to all the others, in order to express an individual character, which contains an obscurely represented end. No part of the face, even if the latter might seem disproportionate to us, can be altered in the depiction, while preserving the others, without it being immediately noticeable to the eye of the expert, even though he has not seen the original, when comparing it with the portrait copied from nature, which of the two contains nature unaltered and which fiction. The variety among human beings of the same race is in all likelihood just as purposively supplied in the original phylum in order to ground and subsequently develop the greatest degree of manifoldness for the sake of infinitely different ends, as is the difference of the races, in order to ground and subsequently develop the fitness to fewer but more essential ends – yet with the difference that the latter predispositions, once developed (which must have occurred already in most ancient times), do not let new forms of this kind^b come about any more and do not let the old ones become extinct either, whereas the former, at least to our knowledge, seem to indicate a nature that is inexhaustible in new characters (outer as well as inner ones).

8: 167 With respect to the varieties, nature seems to prevent the *melting together*^c because it is contrary to its end, namely the manifoldness of the characters; by contrast, as regards the differences of the races, nature seems at least to permit the melting together, although not to favor it, since thereby the creature becomes fit for several climates but not suited to any one of them to the degree achieved by the first adaptation^d to it. For after paying careful attention to the family sort, I cannot concur with the common opinion according to which children (of our class of whites) are supposed to inherit those marks that belong to the variety (namely stature, facial formation, skin color, even some inner as well as outer ailments) from their parents half each^e (as one says: this the child has from the father, that from the mother). They take after, if not the father or mother, then at least the family of one or the other in an unmixed manner. And while the abhorrence against the mixings of people that are too closely related for the most part may have moral reasons,^f and while their infertility may not be sufficiently proven, still the wide spread of

^a *bestimmt.*

^b *Art.*

^c *Zusammenschmelzung.*

^d *erste Anartung.*

^e *auf die Halbscheid.*

^f *Ursachen.*

this abhorrence even to primitive peoples^a gives rise to the conjecture that its reason^b may lie remotely in nature itself, which does not want the old forms to always be reproduced all over, but rather that all the manifoldness be brought out which she had placed into the original germs of the human phylum. Also, a certain degree of uniformity that can be found in a family sort or even in an ethnic sort may not be ascribed to half-breed adaptation^c of its characters (which, in my view, does not take place at all with respect to varieties). For the preponderance of the generative power of one or the other half of married people, where at times almost all children take after the father's line or all take after the mother's,^d can reduce the initially large difference of the characters and produce a certain uniformity (visible only to foreign eyes) through effect and counter-effect, which brings it about that the regenerations^e become ever more rare on one of the sides. But this is only a casual opinion, which I present to the reader to judge as he pleases. It is more important that in other animals almost everything which one would want to call variety in them (such as the size, the constitution of the skin, etc.) is subject to half-breed adaptation; and this would seem to contain an objection against my distinction between races and varieties if one considers the human being, according to the analogy with animals (with respect to procreation), as is only fair. In order to judge this matter, one already needs to assume a higher standpoint for the explanation of this arrangement of nature, namely the standpoint that non-rational animals, whose existence can have a value only as a means, already had to be equipped in the predisposition in different ways for different uses (as the different races of dogs, which, according to *Buffon*,⁷ are to be derived from the common phylum of the German shepherd). By contrast, the greater uniformity^f of the end in the human species did not demand such great difference of adapting natural forms;^g and thus the necessarily adapting natural form needed only to be predisposed toward the preservation of the kind^b in a few climates that are markedly different from each other. But since I only intended to defend the concept of *races*, I do not need to vouch for the explanatory ground of the varieties.

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After removing this verbal disagreement, which is often more responsible for a dissension than the one over principles, I now hope to encounter less of an obstacle to maintaining my mode of explanation.

^a *roben Völkern.*

^b *Grund.*

^c *halbschlächtigen Anartung.*

^d *väterlichen oder . . . mütterlichen Stamm.*

^e *Nachartungen.*

^f *Einbelligkeit.*

^g *anartender Naturformen.*

^b *Erhaltung der Spezies.*

Herr F. agrees with me in that he finds at least one hereditary peculiarity among the different shapes of human beings, namely that of the Negro as opposed to the other human beings, large enough for not holding it to be a mere play of nature and the effect of contingent impressions but rather demanding for it predispositions that were originally incorporated into the phylum and a specific arrangement of nature.^a This unanimity among our concepts is already important and also makes it possible to bring the explanatory principles on each side closer together. By contrast, the common, shallow mode of representation, which places all differences in our species on the same footing, namely that of chance, and as such differences still now come about and vanish, just as external circumstances make it happen, declares all investigations of this kind superfluous and thereby declares invalid even the persistence of the kind^b in the same purposive form. Only two differences in our concepts remain, which, however, are not so far apart as to render necessary a dissension that could never be settled. The **first** one is that the previously mentioned hereditary peculiarities, namely those of the *Negro* as opposed to all other human beings, are the only ones which are supposed to deserve to be taken for originally implanted; while I judge still others (those of the *Indians* and *Americans*, in addition to that of the *whites*) to be equally entitled to figure in the complete classificatory division. The **second** deviation, which, however, concerns not so much the observation (description of nature) as the theory to be assumed (natural history), is this: that Hr. F. finds it necessary to assume two original phyla in order to explain these characters; while on my view, it is possible and indeed more appropriate to the philosophical mode of explanation to view them (which I consider, like Hr. F., to be original characters) as a development of purposive first predispositions implanted in one phylum. Now this is not actually such a great dissension that reason could not come to an agreement on this point, considering that the physical first origin of organic beings remains unfathomable to both of us and to human reason in general, and the same with the half-breed adaptation in propagation. Now the system according to which the germs are already originally divided and isolated in two different phyla but nevertheless afterward in the mixing of what was previously separated melt together again harmoniously – this system does not procure the slightest further ease for the possibility of rational comprehension than the system according to which the germs are originally implanted in one and the same phylum and subsequently develop *purposively for the first general population*. In addition, the latter hypothesis carries with it the advantage of sparing us different local creations.^c

^a ursprünglich dem Stamme einverleibte Anlagen und spezifische Natureinrichtung.

^b Beharrlichkeit der Spezies.

^c Lokalschöpfungen.

Moreover, there can be no thought of sparing us *teleological* grounds of explanation, in order to replace them with physical ones, in the case of organized beings as regards the preservation of their kind.^a Therefore the teleological mode of explanation does not place a new burden on the investigation of nature beyond the one which it can never shake off in any case, namely to follow only the *principle of ends*^b in those matters. Furthermore it was only through the discoveries of his friend, the famous philosophical anatomist Hr. *Soemmerring*,⁸ that Hr. F. was moved to find the difference of the Negro from other human beings more important than it might please those who would like to blur all hereditary characters into each other and regard them as merely accidental shadings. Now this excellent man defends the perfect purposiveness of the Negro formation with respect to his native country.*^c Yet one can hardly detect in the bone structure of the head of the Negro a suitability to his soil that is more comprehensible than the one to be found in the organization of the skin, that great instrument for the secretion^d of all that is supposed to be removed from the blood. Consequently Hr. *Soemmerring* appears to be referring to *the latter* arrangement of nature, which is so distinct^e from the rest of it (and of which the constitution of the skin is an important piece) and to be presenting *the former* only as its clearest hallmark for the anatomist. Therefore, if it is proven that there are other equally persistently hereditary peculiarities which do not at all flow into each other following the gradations of the climate but are sharply delineated and small in number, Hr. F. will hopefully not be disinclined to grant those an equal claim to special original germs that are purposively implanted in the phylum – even if those further peculiarities do not fall into the domain of anatomy. But hopefully we might still achieve agreement in the end concerning the question whether because of this several phyla or only one common one need to be assumed.

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* *Soemmerring*, On the Corporeal Difference of the Negro from the European, p. 79. "One finds properties in the build of the Negro that make him the most perfect creature for his climate, perhaps more perfect than the European for his." The excellent man doubts (in the same work, §44) *Dr. Schott's* opinion of the skin of the Negroes being more suitably organized for the better evacuation of noxious materials.⁹ Yet that opinion receives a lot of probability if one connects it with *Lind's* (Of the Diseases of the Europeans . . .) reports¹⁰ about the noxious character of the air around the river Gambia, which is phlogistonized through swampy forests, and which becomes deadly so fast to the English sailors, while the Negroes live in it as in their element.

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^a *Art.*

^b *Prinzip der Zwecke.*

^c *die vollkommene Zweckmäßigkeit der Negerbildung in Betreff seines Mutterlandes.*

^d *Absonderungswerkzeuge.*

^e *ausgezeichnet.*

Thus only those difficulties would have to be removed which prevent Hr. F. from joining my position, not so much with respect to the principle but rather with respect to the difficulty of adapting it appropriately in all cases of its application. In the first section of his treatise, October 1786, p. 70, Hr. F. establishes a color scale of the skin that goes from the inhabitants of northern Europe across Spain, Egypt, Arabia, Abyssinia to the equator, and from there in reverse direction proceeding into the temperate southern zone across the countries of the Kaffir and Hottentots, and this with a gradation, from brown to black and back again, so proportionate to the climate of the countries (in his view) that he is astonished at how one could have overlooked this. (He assumes in this, although without proof, that the colonies originating from black Africa and stretching toward the tip of Africa, were gradually transformed merely through the effect of the climate into Kaffir and Hottentots.) But one must be more astonished yet at how he could have overlooked the mark of unending half-breed generation, upon which everything depends here – a mark that is sufficiently determinate and justifiably to be taken for the only decisive one. For neither the northernmost European in the mixing with those of Spanish blood nor the Mauritanian or Arab (presumably also the Abyssinian, who is closely related to the latter) in the mixing with Circassian women are the least subject to this law. Once one sets aside what the sun in a country impresses upon each individual in it, there is also no ground^a for judging that their color is any other than the brunette one among the white human sort. However, as far as the similarity to the Negro in the Kaffir and to a lesser degree in the Hottentots in the same part of the world is concerned, which presumably would pass the test of half-breed generation,^b it is probable to the highest degree that these might be nothing but bastard generations^c of a Negro people with the Arabs, who have been visiting these coasts since the most ancient times. For why is it that the same presumed color scale is not also found at the West coast of Africa, where indeed nature makes a sudden leap from the brunette Arabs or Mauritanians to the blackest Negroes on the Senegal river, without previously having taken the middle road of the Kaffir? This also cancels the experiment^d proposed on page 74 and decided in advance, which was supposed to demonstrate the objectionable character of my principle, namely that the black brown Abyssinian, in mixing with a Kaffir woman, would yield no intermediary sort in terms of color, since the color of both of them is the same, namely black brown. For if Hr. F. assumes that the brown color of the Abyssinian in the intensity found in the Kaffir is inborn, and this in a such a way that it would

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^a *Ursache.*

^b *Versuch der halbschlächtigen Zeugung.*

^c *Bastarderzeugungen.*

^d *Probeversuch.*

have to yield an intermediary color in mixed generation^a with a white woman, then the experiment^b indeed might turn out as Hr. F. wishes. But it would also not prove anything against me since the difference of the races is not judged according to what is the same in them but what is different in them. All one could say would be that there are also deep brown races that differ from the Negro or his phyletic origination *in other marks* (e.g., the bone structure). For it would only be with respect to the latter that the generation would result in a blend,^c and my list of colors would merely be increased by one. If however the deep color worn by the Abyssinian who grew up in his country is not inborn but only like that of a Spaniard, e.g., raised from small age in that very country, then his skin color would undoubtedly yield, when crossed with that of the Kaffir, an intermediary sort of generation,^d but which would be hidden, though, and would seem to be a uniform sort (in terms of skin color) since the contingent coloring through the sun comes in. Therefore the projected experiment proves nothing against the fitness of the necessarily hereditary skin color for a differentiation of the races. It only proves the difficulty of being able to determine correctly the skin color, insofar as it is inborn, in places where the sun covers it over with contingent varnish, and it confirms the legitimacy of my demand to give preference to *generations*^e from the same parents *in a foreign country* for this purpose.

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Now we possess a decisive example of the latter in the Indian skin color of a small people that has been propagating itself for some centuries in our Northern countries, namely the *gypsies*.^f That they are an *Indian* people is established by their language, independent of their skin color. Yet nature has been so obstinate in preserving their skin color that, while their presence in Europe can be traced back as far as twelve generations,^g it still appears so perfectly that, were they to grow up in India, in all likelihood no difference would be found between them and the natives there. Now to say that one would have to wait another twelve times twelve generations until the northern air would have bleached out their inheritable skin color entirely, would mean to put off the investigator of nature with dilatory answers and to look for excuses. Yet to pass off their color for mere variety, like that of the brunette Spaniard by contrast to the Dane, would mean to doubt nature's imprint. For they beget unfailingly half-breed children with our old natives, to which law the

^a *vermischter Zeugung.*

^b *Versuch.*

^c *Blending.*

^d *Mittelschlag der Zeugung.*

^e *Zeugungen.*

^f *Zigeunern.*

^g *Generationen.*

race of the whites is not subject with regard to any of its characteristic varieties.

Yet the most important counterargument occurs on pages 155–6, by which, in case it were founded, would be proven that, even if I were conceded my *original predispositions*, the latter would not be consistent with the suitability of human beings to their mother-countries *in their spreading* over the surface of the earth. At most, says Hr. F., it could be argued that *exactly those* human beings *whose predisposition* are suited *for this* or that *climate* would be born here or there through a wise arrangement of Providence. But, he continues, how is it then that this same Providence became so shortsighted not to think ahead to a *second transplanting*,^a in which that germ, which was fit only for one climate, had become entirely purposeless.

8: 173 As far as the first point is concerned, one should remember that I took those first predispositions not to be *divided among different* human beings – for then they would have become as many different *phyla* – but to have been *united* in the first human couple. Hence those of their descendants in which the *entire* original predisposition for all future subspecies was still unseparated were fit for all climates (*in potentia*^b), such that the germ that would make them suitable to the region of the earth in which they or their early descendants were to find themselves could develop in that place. Thus there was no need for a special wise arrangement^c to bring them into those places where their predispositions fit. Rather wherever they went by chance and continued their generation^d over long periods of time, there developed the germ for this region of the earth to be found in their organization, which made them fit for such a climate. The development of the predispositions depended on^e the places, and the places did not have to be selected according to the already developed predispositions, as Hr. F. misunderstands the matter. Yet all of this only holds of the earliest times, which may have lasted long enough (for the gradual population of the earth) in order to first provide a people which had a permanent place with the influences of climate and soil that are required for the development of those of its predispositions suited for this location. But now he continues: How come the same understanding that calculated so correctly which countries and which germs should match, suddenly became so short-sighted not to have foreseen the case of a *second transplanting*? (According to what was previously said, countries and germs *always had to* match in that situation, even if one would rather that it was not an understanding but the very same nature that

^a *Verpflanzung*.

^b Latin for “potentially.”

^c *weisen Fügung*.

^d *Generation*.

^e *richtete sich nach*.

had arranged the organization of the animals with such consistent inner purposiveness that also provided for their preservation with equal care.) That way, the inborn peculiarity that is fit for one climate becomes entirely purposeless, etc.

As far as this second objection is concerned, I concede that the understanding, or, if one prefers, the spontaneously purposively active nature,^a indeed paid no heed to a transplanting after germs have already developed, yet without thereby justifying the accusation of lacking wisdom and being short-sighted. Rather through the arranged suitability to the climate nature has hindered its exchange,^b especially that of the warm climate against the cold one. For it is exactly this poor match of the new region to the already adapted natural character of the inhabitants of the old region that all by itself keeps them away from the former. And where have Indians and Negroes attempted to expand into northern regions? – But those who were driven there have never been able to bring about in their progeny (such as the Creole *Negroes*, or the *Indians* under the name of the gypsies) a sort that would be fit for farmers or manual laborers.*

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* The last remark is not put forward here in order to prove something but is nevertheless not insignificant. In Hr. *Sprengel's* Contributions, 5th Part, pp. 287–92,¹¹ a knowledgeable man, adduces the following against Ramsay's wish to use all Negro slaves as *free* laborers: that among the many thousand freed Negroes which one encounters in America and England he knew no example of someone engaged in a business which one could properly call *labor*; rather that, when they are set free, they soon abandon an easy craft which previously as slaves they had been forced to carry out, and instead become hawkers, wretched innkeepers, lackeys, and people who go fishing and hunting, in a word, tramps. The same is to be found in the gypsies among us. The same author notes on this matter that it is not the northern climate that makes the Negroes disinclined for labor. For they would rather endure waiting behind the coaches of their masters or, during the worst winter nights, in the cold entrances of the theaters (in England) than to be threshing, digging, carrying loads, etc. Should one not conclude from this that, in addition to the *faculty* to work, there is also an immediate drive to activity (especially to the sustained activity that one calls industry), which is independent of all enticement and which is especially interwoven with certain natural predispositions; and that Indians as well as Negroes do not bring any more of this impetus into other climates and pass it on to their offspring than was needed for their preservation in their old motherland and had been received from nature; and that this inner predisposition extinguishes just as little as the externally visible one. The far lesser needs in those countries and the little effort it takes to procure only them demand no greater predispositions to activity. – Here I would like to cite something from *Marsden's* thorough description of Sumatra (see *Sprengel's* Contributions, 6th Part, pp. 198–9).¹² “The color of their (the Redjangs) skin is ordinarily *yellow* without the admixture of red which produces the color of copper. They are almost consistently somewhat lighter in color than the mestizoes in other regions of India. – The white color of the (*continued on page 210*)

^a *von selbst zweckmäßig wirkende Natur.*

^b *Verwechslung.*

8: 175 Yet precisely that which Hr. F. takes to be an insurmountable difficulty for my principle throws the most advantageous light on it, when applied in a certain way, and solves difficulties that no other theory is able to do anything about. I assume that so many generations^a were required from the time of the beginning of the human species through the gradual development of the predispositions which are found in it for the purpose of complete adaptation to a climate that during this time span the expansion of the human species over the most considerable part of the earth could have taken place, under meager multiplication of the species^b – an expansion that for the most part was brought about forcefully through violent revolutions of nature. If through these causes a small people of the old world had been driven from southern regions to the northern ones, then the adaptation, which may not yet have been completed with respect to the previous region, must have gradually come to a standstill, while making room for an opposite development of the predispositions, namely for the northern climate. Now let us suppose that this sort of human beings had moved in a north-eastern direction all the way to America – a view^c which currently has the greatest probability –, then its natural predispositions would have developed as far as is possible even before it could have expanded again to any considerable degree to the south in this new part of the world, and this development, which was now completed, would have made impossible all further adaptation to a new climate. Thus a race would have been founded which remains always the same for all climates in its advance toward the south, and which therefore is not suited to any climate, since the southern adaptation prior to its departure was interrupted halfway through and exchanged against an adaptation to the northern climate, thereby establishing the persistent state of this cohort of human beings.^d And indeed *Don Ulloa*¹³ (an extremely important witness, who knew the inhabitants of America in both hemispheres) asserts having found the characteristic shape of the

(continued from page 209) inhabitants of Sumatra in comparison with other peoples of the same region is, on my view, a strong proof that the color of the skin does not at all depend immediately on the climate. (He says the same about the color of the skin of children of Europeans born there and of Negroes in the second generation, and conjectures that the darker skin of the Europeans who have stayed there a long time is a consequence of the many bilious illnesses to which everyone there is exposed.) – Here I must also note that the hands of the natives and the mestizoes are usually cold in spite of the hot climate” (an important circumstance, which indicates that the peculiar constitution of the skin cannot stem from superficial external causes).

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^a *Generationen.*

^b *Vermehrung der Art.*

^c *Meinung.*

^d *Menschenbauens.*

inhabitants of this part of the world to be of a consistent similarity (one of the more recent seafarers, whose name I cannot give with certainty right now, describes their color as *iron rust* mixed with *oil*). That their natural disposition did not achieve a *perfect* suitability for any climate, can be seen from the circumstance that hardly another reason can be given for why this race, which is too weak for hard labor, too indifferent for industry and incapable of any culture – although there is enough of it as example and encouragement nearby – ranks still far below even the Negro, who stands on the lowest of all the other steps that we have named as differences of the races.

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Now let us consider all other possible hypotheses with respect to this phenomenon. If one does not wish to extend the special creation of the Negro, already suggested by Hr. F., with a second one, namely that of the American, then no other answer is left than that America is *too cold* or *too new* for ever producing the subspecies of the Negro or the yellow Indian, or for having produced it in the short time since it has been populated. The first assertion is by now sufficiently refuted, given the hot climate of this part of the world. Now to the *second* assertion, namely that if only one had the patience to wait still for several thousands of years, finally the Negro (at least in terms of hereditary skin color) would emerge here, too, thanks to the gradual influence of the sun. Here one would first have to be certain that sun and air can accomplish such engraftings,^a merely in order to defend oneself against *objections* with respect to such a merely surmised result,^b which can always be postponed further arbitrarily and is merely conjectured. Given that the engrafting influence of the climate is itself still very much contested, how much less can a merely arbitrary surmise be placed against *facts*!

An important confirmation of the derivation of the unfailingly hereditary differences through the development of predispositions that are to be found together in a human phylum originally and purposively for the preservation of the kind^c is the following: the races that have developed from it are not spread *sporadically*^d (in all parts of the world, in one and the same climate, in the same way), but *cycladically*^e in unified heaps which are to be found distributed within the confines of a country in which each of them was able to form itself. Thus the *pure* phyletic origin of the *yellow-colored* race is confined in the boundaries of *Hindustan*, while *Arabia*, not far from there, which for the most part occupies the same part of the earth, contains nothing thereof. But neither of them contains any *Negroes*, who are only to be found in *Africa* between the

^a *Eimpfropfungen.*

^b *Erfolg.*

^c *Art.*

^d *sporadisch.*

^e *zykladisch.*

Senegal river and *Cape Negro* (and so on in the interior of this part of the world). By contrast, the whole of *America* contains neither one nor the other, indeed contains no racial character of the old world (except for the *Eskimoes*, who, judging from the characters of their shape and even talent, seem to be later arrivals from one of the old parts of the world). Each of these races is, as it were, isolated and, while being in the same climate, they are distinguished from each through a character that adheres inseparably to the generative faculty of each of them. Thus they render very improbable the opinion of the origin of these characters as effects of the climate, while confirming the conjecture of an entirely consistent generative affinity^a through the unity of phyletic origin, while simultaneously confirming the conjecture of a *cause* of their classificatory difference residing in the human beings themselves, not merely in the climate – a difference which must have required a long time before becoming effective in a way suited to the place of the propagation, and which, once established, permits no further subspecies through any transferrals.^b For this reason the cause of the classificatory difference can be taken for nothing other than a gradually developing *original predisposition* placed into the phylum and restricted to a certain number according to the main differences of the influences exercised by the air. This argument^c seems to be weakened by the race of the *Papuas*, which is scattered among the islands belonging to south Asia and further east to the Pacific Ocean, and which I have called Kaffir, following Capt. *Forrester*¹⁴ (presumably because he found grounds for not calling them Negroes, partly in their skin color, partly in their head and beard hair, which they are able to comb out to considerable extent, something that is contrary to the property of the Negroes). But this damage is made good through the equally observable wondrous dispersion of yet other races, namely the *Haraforas*, and of certain human beings that are more similar to the pure Indian stock,^d since it also weakens the proof for the effect of the climate on their hereditary property, given that the latter comes out so differently in one and the same region of the earth. For that reason one also deems it probable that they are not aborigines but foreigners^e (in the case of the *Papuas* perhaps from *Madagascar*), who were driven from their residences through whatever cause (perhaps a powerful revolution of the earth, which must have been effective from west to east). Regarding the inhabitants of *Freewill Island*, concerning which I cited *Carteret's* account from memory (perhaps incorrectly), things may be as

^a *Zeugungsverwandtschaft.*

^b *Versetzungen.*

^c *Beweisgrund.*

^d *Stamm.*

^e *nicht . . . Aborigines, sondern . . . Fremdlinge.*

they may;¹⁵ one will have to look for evidence concerning the development of the differences of the races in the conjectured habitats of their stock^a on the *continent* and not on the *islands*, which, for all appearances, were populated only after nature's effect had been completed for a long time.

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This much in defense of my concept of the derivation of the hereditary manifoldness of organic creatures of one and the same *natural species*^b (*species naturalis*, insofar as they stand in connection through their generative faculty and can have sprung from one phylum*), in contrast to the school species^c (*species artificialis*, insofar as they stand under a common mark of mere comparison), the first of which belongs to natural history, the second to the description of nature. Now I would like to add something about Hr. F.'s own system regarding its origin. We both agree that in a natural science everything must be explained *naturally*, because otherwise it would not belong to this science. I have followed this principle so carefully that an astute man (*Hr. O. C. R. Büsching*¹⁶ in the review of my essay mentioned above), because of my talk of nature's intention, wisdom and foresight, even turns me into a *naturalist*, but with the qualification of *his own kind*, since I do not find it advisable to use a *theological* language in matters that concern the mere cognitions of nature and their reach (where it is quite appropriate to express oneself in *teleological* terms) – in order to indicate quite diligently to each mode of cognition its boundaries.

Yet the same principle^d – that everything in natural science must be explained naturally – also indicates the boundaries of natural science. For one has reached its extreme boundary if one uses the last of all explanatory grounds that can still be confirmed by *experience*. Where these come to an end, and one must bring in self-concocted powers^e of matter following unheard-of and unverifiable laws, one has already gone beyond

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* To belong to one and the same phylum does not immediately mean to have been generated from a single original *pair*; it only means this much: the manifoldnesses which are now to be found in a certain animal species must not thereby be regarded as so many original differences. Now if the first human phylum consisted of however many persons (of both sexes) who were yet all homogeneous, then I might as well derive the present human beings from a single pair as from many of them. Hr. F. suspects me of wanting to assert the latter as a fact, and on the strength of an authority at that. Yet it is only the idea that follows quite naturally from the theory. But as regards the difficulty that, due to rapacious animals, humankind would have been poorly protected had it begun from a single pair, this does not cause him any particular trouble. For his all-producing earth would only have had to bring forth those animals later than the human beings.

^a *Stamm.*

^b *Naturgattung.*

^c *Schulgattung.*

^d *Grundsatz.*

^e *selbst erdachten Kräften.*

natural science. And while one may still cite natural things as causes, one attributes powers to them the existence of which cannot be proven through anything, or even the very possibility of which can hardly be reconciled with reason. Since the concept of an organized being already includes that it is some matter in which everything is mutually related to each other as end and means, which can only be thought as a *system of final causes*, and since therefore their possibility only leaves the teleological but not the physical-mechanical mode of explanation, at least as far as *human* reason is concerned, there can be no investigation in physics about the origin of all organization itself. The answer to this question, provided it is at all accessible to us, obviously would lie *outside* of natural science *in metaphysics*. I myself derive all organization from *organic beings* (through generation^a) and all later forms (of this kind of natural things) from laws of the gradual development of *original predispositions*, which were to be found in the organization of its phylum. Such development can often be seen in the transplantings of plants. How this phylum itself *came about*, this problem^b lies entirely beyond the limits of all physics possible to human beings, within which I believed that I had to hold myself.

Therefore I fear nothing from a court of inquisition^c for Hr. F.'s system (for it, too, would presume a jurisdiction outside of its domain). Moreover, if necessary, I vote for a philosophical *jury* (p. 166), composed of mere investigators of nature, and yet do not believe that their ruling would be in his favor. "The earth in labor (p. 80), 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) (p. 158), the affinity of all derived from there, in an unnoticeable gradation from the human being to the whale (p. 77) and so on farther down the chain of nature^{*d} of organic beings (presumably to the mosses and lichen), and this not only in the system of comparison but in the system of generation^e from the common phylum)" – those statements may not make the investigator of nature recoil as though before a monster (p. 75) (for it is a play with which many may have entertained themselves at one time or another, but which they

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* Concerning this idea, which became very popular especially through *Bonnet*.¹⁷ Hr. Prof. *Blumenbach*'s reminder (Handbook of Natural History 1779, Preface, §7)¹⁸ deserves to be read. Also this insightful man attributes the *formative drive*, through which he brought so much light into the doctrine of generations, not to inorganic matter but only to the members of organized beings.

^a *Zeugung*.

^b *Aufgabe*.

^c *Ketzergericht*.

^d *Naturkette*.

^e *Vergleichungssystem . . . Erzeugungssystem*.

soon gave up since nothing is gained by it). Still he would be scared away from it by the consideration that he had thereby, without noticing it, gone astray from the fertile soil of the investigation of nature to the desert of metaphysics. Moreover, I know of yet another fear which is not exactly (p. 75) *unmanly*, namely to recoil from everything which unhitches reason from its first principles^a and permits it to wander about in unbounded imaginings. But perhaps Hr. F. merely wanted to do a favor to some *hypermetaphysician*^b (for there are such as well, namely those who do not know the elementary concepts, even pretend to scorn them and yet go out heroically on conquests) and provide material for his fantasy, only to make fun of it later.

True metaphysics knows the boundaries of human reason and, among other things, its hereditary defect,^c which it can never deny: that it cannot and may not at all concoct a priori *basic powers* (for then it would devise nothing but empty concepts), but can do nothing else than reduce the powers which experience teaches it (to the extent that the latter differ only in appearance^d but are basically identical) to the smallest possible number, and to look for the pertinent *basic power* in the *world*, if it is a matter of physics, or *outside the world*, if it is a matter of metaphysics (viz., to indicate that basic power which is no longer dependent on anything else). Given that we can only know a basic power through the relation of a cause to an effect, we cannot provide any other concept of a basic power and come up with another appellation for it than the one taken from the effect and expressing only this relationship.* Now the concept

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* E.g., the *imagination* in the human being is an effect that we cognize to be not the same with other effects of the mind. Therefore the power related to this effect can only be called power of the imagination (as basic power). Likewise, under the title moving forces, repulsive force and attractive force are *basic powers*. Several have thought that they had to assume a single basic power for the sake of the unity of the substance and even have thought to gain cognition of it simply by coining the *common title* of various basic powers, e.g. that the basic power of the soul is the power of representing the world. This would be the same as if I were to say: the sole basic power of matter is moving force, since repulsion and attraction both stand under the common concept of movement. Yet one desires to know whether the former could also be *derived* from the latter, which is impossible. For with respect to their specific difference, the *lower* concepts can never be derived from the *higher* ones. And as far as the unity of the substance is concerned, which appears to include the unity of the basic power already in its concept, this illusion rests on an incorrect definition of *power*: For the latter is not that *which* contains the ground of the actuality of the accidents (i.e., the substance) but only the *relation* of the substance to the accidents *insofar* as the former contains the ground of the actuality of the latter. But different relations may well be attributed to the substance (its unity notwithstanding).

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^a *ersten Grundsätzen.*

^b *Hypermetaphysiker.*

^c *Erbfehler.*

^d *dem Anscheine nach.*

of an organic being is this: that it is a material being which is possible only through the relation of everything contained in it to each other as end and means (and indeed every anatomist as well as every physiologist actually starts from this concept). Therefore a basic power that is effectuated through an organization has to be thought as a cause effective according to *ends*,^a and this in such a manner that these ends have to be presupposed for the possibility of the effect. But we know such powers, *in terms of their ground of determination only in ourselves*, namely in our understanding and will, as a cause of the possibility of certain products that are arranged entirely according to ends, namely that of *works of art*. In us understanding and will are basic powers, of which the latter, insofar as it is determined by the former, is a faculty to produce something *according to an idea* which is called end. Now we may not conceive a new basic power independent of all experience. Yet such would be the case with the basic power that were effective in a being in a purposive manner^b without having its determining ground in an *idea*. Hence the concept of a being's faculty to be effective^c from itself *purposively* but *without an end* and intention^d that would lie in it or its cause – as a special basic power not exemplified by experience – is entirely fictitious and empty, i.e., without the slightest guarantee that any object could correspond to it at all. Thus regardless of whether the cause of organic beings is to be met with *in* the world or *outside* the world, we must either give up all determination of their cause, or think an *intelligent being* along with them – not as though we understood that such an effect is *impossible* from another cause (as the late Mendelssohn,¹⁹ together with others, thought); but because, in order to presuppose another cause with the exclusion of final causes, we would have to *make up* a basic power – something to which reason is not at all entitled, because otherwise it would take no effort for reason to explain *whatever* and *however* it wants.

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And now to add up the total from all this. *Ends* have a direct relationship to *reason*, be it foreign reason or our own. Yet, even in order to place them in foreign reason, we must presuppose our own reason at least as an analogue to the latter, since those ends cannot be represented at all without such an analogy. Now ends are either ends of *nature* or ends of *freedom*. No human being can know^e a priori that there must be ends in nature; however, he can very well know^f a priori that there must be a connection of causes and effects in nature. Hence the use of the teleological

^a *eine nach Zwecken wirkende Ursache.*

^b *zweckmäßig wirkte.*

^c *wirken.*

^d *zweckmäßig, aber ohne Zweck und Absicht.*

^e *einschauen.*

^f *einschauen.*

principle with respect to nature is always empirically conditioned. Things would be the same with the ends of freedom, if the objects of volition had to be given to the latter antecedently by nature (in needs and inclinations) as determining grounds of freedom, in order to determine through reason, merely by comparing those grounds among each other and with their sum, what to take for our end. Yet the Critique of Practical Reason shows that there are pure practical principles, through which reason is determined a priori and which thus indicate a priori the latter's end. Now the use of the teleological principle in explanations of nature, given that it is restricted to empirical conditions, can never indicate the ultimate ground^a of the purposive connection completely and with sufficient determination for all ends. But the latter has to be expected from a *doctrine of pure ends*^b (which can be no other doctrine than that of *freedom*), the principle of which contains a priori the relation of reason in general to the whole of all ends and can only be practical. However, since a pure practical teleology, i.e., a morals,^c is destined to realize its ends in the world, it may not neglect their *possibility* in the world, both as regards the *final* causes given in it and the suitability of the *supreme cause of the world* to a whole of all ends as effect – hence natural *teleology* as well as the possibility of a nature in general, i.e., transcendental philosophy. This serves to secure objective reality to the doctrine of practically pure ends^d with respect to the possibility of the object in the exercise,^e namely the objective reality of the end that this doctrine prescribes as to be effectuated in the world.

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Now in both these regards, the author of the *Letters on the Kantian Philosophy* has demonstrated in an exemplary manner his talent, insight and laudable mode of thought in usefully applying that philosophy to universally necessary ends. And while it may be an imposition on the excellent editor of the present journal which might seem to encroach upon his modesty, I have not been able to fail to ask his permission to insert in his journal my recognition of the merit of the unnamed and until quite recently to me unknown author of those letters concerning the common cause of a speculative as well as practical reason that is guided by fixed principles,^f to the extent that I endeavored to make a contribution to this. The talent of a lucid, even graceful presentation of dry abstract^g doctrines, without loss of their thoroughness, is so rare (it is the least granted to old age) and yet so useful, I will not

^a *Urgrund.*

^b *reine Zweckslehre.*

^c *Moral.*

^d *praktischen reinen Zweckslehre.*

^e *in der Ausübung.*

^f *Grundsätzen.*

^g *abgezogener.*

say only for the recommendation, but even for the clarity of insight, the intelligibility and the conviction associated with it – that I consider myself obliged to pay thanks publicly to the man who supplemented^a my works, to which I was not able to provide this facilitation, in such a manner.

8: 184 Finally, I would like to use this occasion to touch briefly on the accusation of contradictions, allegedly discovered in a work of considerable extent, presumably before having been grasped in its entirety. Those alleged contradictions all vanish by themselves if one considers them in connection with the rest of the work. In the Leipz. gel. Zeitung 1787 No. 94²⁰ a contradiction is pointed out between that which stands in the Critique etc. edition 1787 in the introduction, p. 3, 1. 7 with what follows soon thereafter on p. 5, 1. 1 and 2.²¹ For in the first passage I had said: among the cognitions a priori, however, those are called *pure* in which nothing empirical is *intermixed*; and I had given as an example of the opposite the proposition: everything *alterable* has a cause. By contrast, I cite on p. 5 this same proposition as an example of a pure cognition a priori, i.e., one that is not *dependent* on anything empirical. Here we have two meanings of the word *pure*, of which I am only concerned with the latter in the whole work, though. To be sure, I could have avoided the misunderstanding by an example of the first kind of propositions such as: Everything *contingent* has a cause. For here nothing empirical is *intermixed*. But who can think of all occasions for misunderstanding? – The same thing happened to me with a note to the preface of the *Metaphysical First Principles of Natural Science*, pp. xvif.,²² where I declare the deduction of the categories to be important yet not *extremely necessary*, while studiously asserting the latter in the Critique. One can easily see that in the former work the deduction was considered only with a *negative* intention, namely in order to prove that with the categories *alone* (without sensible intuition) *no cognition* of things could come about – which becomes clear already if one turns only to the **exposition** of the categories (as logical functions applied merely to objects in general). Yet since we also engage in a use of the categories in which they actually pertain to the *cognition* of objects (of experience), the possibility of an objective validity of such concepts a priori in relation to the empirical had to be proven separately,^b so that they would not be judged to be without meaning or to have *originated* empirically. And that was the *positive* intention with respect to which the *deduction* is indeed indispensably necessary.

I have just learned that the author of the Letters mentioned above, Hr. Councillor *Reinhold*, is now professor of philosophy in Jena – an addition that can only be advantageous to this famous university.

I. Kant

^a *ergänzte*.

^b *besonders*.

- Swiss theologian and writer, Johann Kaspar Lavater (1741–1801), and then the German philosopher, Friedrich Heinrich Jacobi (1743–1819).
- 9 The second alternative in this sentence has been added to the original text in order to render the subsequent text intelligible.
- 10 Friedrich Hoffmann (1660–1742), professor of medicine in Halle, for a while personal physician of the Prussian king. *Philosophia corporis humani vivi et sani* (Philosophy of the Living and Healthy Human Body; 1740).
- 11 Georg Ernst Stahl (1660–1734), professor of medicine in Halle, later personal physician of the Prussian king. *Theoria medica vera* (True Medical Theory; 1708).
- 12 Since no pertinent letter by the humanist, Ulrich von Hutten (1488–1523), to his fellow humanist, Erasmus of Rotterdam (1465/1466–1536), could be located, the Academy Edition surmises that the phrase was noted by Kant as a reminder to himself of a matter not related to the surrounding text but referring to the recent publication of a previously unpublished letter by Hutten to Erasmus.
- 13 Kant is quoting Horace *Epistularum* II, i. 86–7 (Loeb xciv, 405).
- 14 According to the Academy Edition, the English doctor is not, as J. Reicke thought, J. Brown, but rather J. Johnstone, who in 1771 published an “Essay on the Use of the Ganglions of the Nerves,” which in 1787 was translated into German (under the title *Versuch über den Nutzen der Nervenknotten*).
- 15 Kant did, in fact, write these rules, in the *Anthropology from a Pragmatic Point of View* (AA 7: 276ff.), which is contained in the present volume.
- 16 See note 7.
- 17 In Greek mythology, the son of Earth and Heaven and the father of Prometheus.
- 18 In Kant’s manuscript this sentence is in Latin. On Kant’s objection to scrutinizing the *involuntary* course of our thoughts and feelings, see his *Anthropology from a Pragmatic Point of View* (AA 7: 133–4 and 161–2), which is contained in the present volume.

Introduction to On the use of teleological principles in philosophy

- 1 Due to the politically sensitive nature of the central topic of these essays and also due to Kant’s repeated regrettable conflation of descriptive and analytic statements with evaluative and even pejorative judgments about different ethnic groups to be found in them, Kant’s theory of the natural history of the human species has not found the sustained scholarly attention it deserves in terms of its philosophical content and its contributions to the history and philosophy of science. A notable recent exception to this practice is Raphaël Lagier, *Les races humaines selon Kant* (Paris: Presses Universitaires de France, 2004). For a discussion of Kant’s theory in the context of modern biology, see Annette Barkhaus, “Kants Konstruktion des Begriffs der Rasse und seine Hierarchisierung der Rassen,” in *Biologisches Zentralblatt* 113 (1994), 197–203.
- 2 Johann Erich Biester was the editor of the *Berlinische Monatsschrift*, in which Kant’s second essay on the topic had appeared. Forster’s essay has the form and tone of a letter to Biester.

- 3 For a modern edition of Forster's essay, see Georg Forster, *Werke in vier Bänden*, edited by Georg Steiner (Leipzig: Aufbau Verlag, 1978), vol. II, pp. 71–101. There is no English translation available.
- 4 See Reinhold's letter to Kant from 12 October 1787 (AA 10: 497–500; no. 305). Subsequent to their serialized publication in *Teutscher Merkur*, of which Reinhold was the co-editor, Reinhold's *Letters on the Kantian Philosophy* appeared in book form in 1790, with a second volume following in 1792. For an English translation, see Karl Leonhard Reinhold, *Letters on the Kantian Philosophy*, edited by Karl Ameriks and translated by James C. Hebbeler (Cambridge: Cambridge University Press, 2005).
- 5 In his letter to Kant from 12 October 1787 (AA 10: 500; Immanuel Kant, *Correspondence*, edited by Arnulf Zweig (Cambridge: Cambridge University Press 1999, pp. 264–8)) Reinhold cited Kant's assertion to be found in a footnote to the Preface of *Metaphysical First Principles of Natural Science* (1786) that the deduction of the categories was a supererogatory task (AA 4: 474 note) and confronted this statement with Kant's declaration in the *Critique of Pure Reason* that the deduction of the categories was "an unavoidable necessity" (A 88/B 121). Kant addresses this problem at the very end of *On the Use of Teleological Principles in Philosophy* (AA 8: 184).
- 6 See AA 7: 357–485; Immanuel Kant, *Critique of the Power of Judgment*, edited and translated by Paul Guyer, translated by Eric Matthews. Cambridge: Cambridge University Press, 2000, pp. 213–346.
- 7 The Academy edition takes Kant in his initial statement, in which he mentions two "astute examinations," both published in the *Teutscher Merkur*, of "two of his attempts," to be referring to his two works, *Determination of the Concept of a Human Race* and *Conjectural Beginning of Human History*, and then finds it difficult to align the brief discussion of Reinhold's *Letters on the Kantian Philosophy* at the end of the essay with this earlier passage (see AA 8:488; explanatory notes to p. 160, lines 9f. and p. 160, lines 12f.). The appearance of a confusion on Kant's part disappears, when one takes Kant's initial mention of a second examination of one of his "attempts" to refer to Reinhold's *Letters on the Kantian Philosophy* and identifies the attempt in question as the *Critique of Pure Reason*. This reading has the additional advantage of being consistent with Kant's immediately following statement of having been understood "beyond all expectation" in this second examination of one of his attempts.

On the use of teleological principles in philosophy

- 1 "Determination of the Concept of a Human Race" (1785), contained in the present volume.
- 2 Kant is referring to *Determination of the Concept of a Human Race* (1785) and *Conjectural Beginning of Human History* (1786), contained in the present volume, both of which first appeared in *Teutscher Merkur* (German Mercury). The two examinations of Kant's work in question are Georg Forster's essay *Noch etwas über die Menschenrassen* (Something Further About the Human Races) and Karl Leonhard Reinhold's *Briefe über die Kantische Philosophie* (Letters on the Kantian Philosophy). For further details, see the introduction to the respective works in the present volume.

- 3 The Swedish botanist Carl von Linné (1707–78) based his classificatory system of plants on properties of the plants' pollinating organs.
- 4 Kant gives a brief account and criticism of Linné's theory of the earth in § 77 of his *Physical Geography* (9: 302f.). "Linné's hypothesis" is also mentioned in Kant's *Sketch and Announcement of a Course in Physical Geography* (1757) (2: 8). According to Linné, the earth's lands originated from a single created mountainous island, to which the ocean added further landmass over many years.
- 5 Lawrence Sterne's novel, *The Life and Opinions of Tristram Shandy Gentleman* (1759–62), had appeared in a German translation by J. J. Bode in 1776. The reference is to the "Slawkenbergii fabella" at the beginning of Book Four.
- 6 A. A. C. Shaftesbury (1671–1713), English philosopher and writer. Kant seems to be citing from memory. The Academy edition conjectures that the corresponding passage is at the beginning of the "Essay on the freedom of wit and humor" in Shaftesbury's *Characteristics*, which it cites in an English edition of 1790.
- 7 George Louis Leclerc, Count Buffon (1707–88), French investigator of nature. His *Histoire naturelle, générale et particulière* (General and Particular Natural History) appeared from 1749 on and was concluded posthumously in 1804, comprising 44 volumes. The reference in question is to be found in vol. III, book 1, p. 112 of the German translation (1756).
- 8 Samuel Thomas Soemmerring (1755–1830), German physician, anatomist, and natural philosopher, with important works on the nervous system and the anatomy of the brain. His work, *Über die körperliche Verschiedenheit des Negers vom Europäer* (*On the Corporeal Difference of the Negro from the European*), appeared in 1785 and was dedicated to Georg Forster. Kant's remarks on Soemmerring's work, *On the Organ of the Soul*, which were incorporated into that work, are included in the present volume.
- 9 Soemmerring had referred to a work by D. Schott entitled, *Treatise on the Synochus Atrabiliosa which Raged at Senegal* (1783).
- 10 James Lind (1716–1794), English physician. Author of *An essay on Diseases incidental to Europeans in hot climates* (1768 and five further editions; first German translation 1773).
- 11 The German publication, *Beiträge zur Völker und Länderkunde* (Contributions to the Study of Peoples and Countries), ed. M. C. Sprengel, Part 5 (1786), 267–92, contains an essay in German "Notes on Ramsay's work on the treatment of the Negro slaves in the West Indies," which refers critically to the work of James Ramsay, former pastor on the island St. Kitts, entitled, "Essay on the treatment and conversion of African slaves in the British Sugar Colonies" (published in English 1783).
- 12 W. Marsden (1754–1836), English explorer of the languages and cultures of the Polynesian peoples, author of a *History of Sumatra* (1783). The German essay in *Contributions to the Study of Peoples and Countries*, ed. M. C. Sprengel, Part 6 (1786), 193ff. translates into English as: "Of the Redjangs on Sumatra according to Marsden's history of this island, third and final installment."
- 13 Don Antonio de Ulloa (1716–95), high-ranking Spanish naval officer and scholar, who took part in scientific expeditions to South America, especially Peru, about which he published several books.

- 14 An excerpt in German of Thomas Forrester's account of his voyage to New Guinea and the Molukian Islands appeared in *Ebeling's Neue Sammlung von Reisebeschreibungen* (Ebeling's New Collection of Travel Descriptions), Part 3 (1782), pp. 1ff.; the reference in question is to p. 83.
- 15 In "Determination of the Concept of a Human Race" Kant had referred to *Captain Carteret's Voyage Around the World of 1766–69*, which had appeared in a German translation in 1776, as containing evidence for the South Sea islanders being whites. But Carteret's work does not contain any passage supporting Kant's conclusion. This had been pointed out to him in G. Forster's essay "Something Further About the Human Races," where the latter also states that, according to Carteret, the skin color of the South Sea islanders is copper.
- 16 Oberconsistorialrath (Church Superintendent) Anton Friedrich Büsching (1724–93), Director of an ecclesiastical high school in Berlin, had published a review of Kant's essay *Determination of the Concept of a Human Race* in the *Wöchentliche Nachrichten* (Weekly News), of which he was the editor (13th year, no. 44, p. 358).
- 17 Charles Bonnet (1720–93), Swiss scientist and philosopher. The idea of an affinity of all living beings is carried through in his *Contemplation de la Nature* (Contemplation of Nature), 2 vols. (1764–5).
- 18 Johann Friedrich Blumenbach (1752–1840), famous German scientist. Kant's reference is to § 7 of Section 1, not of the Preface, of his *Handbuch der Naturgeschichte* (Handbook of Natural History) (1779).
- 19 Moses Mendelssohn (1729–86), German Jewish philosopher. His rationalist views in natural theology in general and his theological teleology in particular are developed in *Abhandlung über die Evidenz in metaphysischen Wissenschaften* (1764) – translated as *On Evidence in Metaphysical Sciences* in Moses Mendelssohn, *Philosophical Writings*, ed. Daniel O. Dahlstrom. Cambridge: Cambridge University Press, 1997, pp. 251–306, esp. pp. 279–94 (Third Section: On the evidence in the first principles of natural theology) – and in *Morgenstunden oder Vorlesungen über das Dasein Gottes* (*Morning Hours or Lectures on the Existence of God*; 1785), Sections XIff.
- 20 *Neue Leipziger gelehrte Zeitungen auf das Jahr 1787* (*New Leipzig Learned Journal on the Year 1787*), 94th piece, pp. 1489–92. The objection addressed by Kant is to be found on pp. 1491f.
- 21 The passages in question are to be found in *Critique of Pure Reason*, B 3 and B 5.
- 22 See AA 4: 474 note, Immanuel Kant, *Metaphysical Foundations of Natural Science*, edited and translated by Michael Friedman. Cambridge: Cambridge University Press, 2004, pp. 10–12 note.

Introduction to From Soemmerring's On the organ of the soul

- 1 The spelling of Soemmerring's name follows AA 12: 30 as well as recent scholarship; variant historical spellings include "Sömerring" (title page of *On the Organ of the Soul*), "Sömmering" (Immanuel Kant, *Werke in zwölf Bänden*, edited by Wilhelm Weischedel. Frankfurt a. M.: Suhrkamp, 1968, vol. 11, p. 253) and "Soemering" (AA 13: 679, Index to Kant's Correspondence).