KANTIAN ANTHROPOLOGY: A SCIENCE LIKE NO OTHER

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1. SCIENCE AND NONSCIENCE

Kant's severe strictures in the Preface to the *Metaphysical Foundations of Natural Science* (1786 – hereafter, *MAN*) regarding which disciplines do and do not constitute "proper science (*eigentliche Wissenschaft*)" seem to rule out entirely the prospect of ever classifying his own anthropology as a science. And yet, as we will see later, he himself does repeatedly call his anthropology a *Wissenschaft*. Is he guilty of contradicting himself, or is there a way to resolve this awkward antinomy within Kant's own system? Let's begin by looking at what he means by "proper science."

First, proper science according to Kant must employ causal laws that are expressible mathematically. Proper science requires a substantial mathematical component – the more mathematics the better, as far as its scientific credentials go. As Kant writes:

I assert . . . that in any special doctrine of nature there can only be as much *proper* science as there is *mathematics* therein. For . . . proper science, and above all proper natural science, requires a pure part [*einen reinen Theil*] lying at the basis of the empirical part, and resting on the *a priori* cognition of natural things (MAN, AA 04: 470).

Kantian anthropology would seem to decisively fail this crucial litmus test, for the simple reason that there appears to be no mathematics therein. As Alix Cohen notes, "insofar as human phenomena are not mathematisable, the human sciences are denied the status of 'science' in the Kantian sense."²

Physics is Kant's paradigm of science, indeed, on his view physics is the *only* proper science. Even chemistry, he claims, "can be nothing more than a systematic art or an experimental doctrine [*systematische Kunst oder Experimentallehre*], but never a proper science, because its principles are merely empirical, and allow of no *a priori* presentation in intuition" (MAN, AA 04: 471). Empirical psychology – one of the chief background sources for Kantian anthropology (particularly as developed by Alexander Baumgarten in his *Metaphysics*)³ – fares even worse than chemistry in Kant's eyes: "the empirical doctrine of the soul must remain even further from the rank of a properly so-called natural science than chemistry" (MAN, AA 04: 471). Empirical psychology fails to qualify as proper science for at least two reasons. First, its primary data – human thoughts – have no identifiable spatial location and hence according to Kant cannot be mathematized: "mathematics is not applicable to the phenomena of inner sense and their laws" (MAN, AA 04: 471). But second, the data of empirical psychology are not subject to repeatable experiments, in part because "observation by itself changes and displaces the state of the observed subject" (MAN, AA 04: 471).

The possibility of replicable experiments is thus Kant's second necessary criterion for proper science. The difficulty of performing replicable experiments involving human mental states is described at greater length later in the Preface to *Anthropology from a Pragmatic of View* as one of the "considerable difficulties (*erhebliche Schwierigkeiten*)" inherent in human nature that confront any anthropology that aspires to scientific status. The first of three interrelated observations that Kant makes on this topic, for instance, is the following:

If a human being notices that someone is observing him and trying to study him, he will either appear embarrassed (self-conscious) and *cannot* show himself as he really is; or he dissembles, and does not *want* to be known as he is (Anth, AA 07: 121; cf. V-Anth/Mron, AA 25: 1214, V-Anth/ Busolt, AA 25: 1437).⁴

Biology is not even mentioned as a possible candidate for proper science in Kant's *MAN* discussion, presumably because his own teleological commitments in biology prevented him from conceiving that biology could ever be mathematized. The activities of living organisms, Kant asserts later in the third *Critique*, cannot be explained by mechanical principles, and there will never be a Newton of biology:

we can boldly say that it would be absurd for humans even to make such an attempt or to hope that there may yet arise a Newton who could make comprehensible even the generation of a blade of grass according to natural laws that no intention has ordered; rather, we must absolutely deny this insight to human beings (KU, AA 05: 400; cf. NTH, AA 01: 229-30).

Although the dual requirements of mathematization and repeatable experimentation may not exhaust Kant's criteria for proper science,⁵ we can see already that anthropology, particularly *Kantian* anthropology, which is concerned with "what *he* [viz., the human being] as a free-acting being makes of himself, or can and should make of himself" (Anth, AA 7: 119; cf. V-Anth/Pillau, AA 25: 733) faces an extremely high hurdle. If chemistry, psychology, and biology all fail the scientific litmus test, what hope is there for anthropology?

One way out of this apparent impasse is simply to reject the strong criteria for proper science that Kant defends in the Preface to MAN and replace them with softer criteria that anthropology might be able to more readily meet. This strategy is pursued at one point by Thomas Sturm in his book, Kant und die Wissenschaften vom Menschen. In his discussion of "Kant's Concept of Science" (Chapter III), Sturm does not refer to Kant's MAN criteria at all. Rather, the emphasis is on "systematicity (Systematizität)."6 And Kant does state in the Critique of Pure Reason that "systematic unity is that which first makes ordinary cognition into science [Wissenschaft]; i.e., makes a system out of a mere aggregate of it" (KrV, A 832/B 860). Additionally, Kant clearly does stress systematicity over mere aggregates in several of his anthropology lectures. For instance, at the beginning of Friedländer (1775-76), after stating that physical geography and anthropology form the two parts of "knowledge of the world (Kenntnis der Welt)," he adds: "In order to have world knowledge, one must study a whole, out of which the parts can subsequently be determined, and this is a system, insofar as multiplicity has arisen out of the idea of the whole" (V-Anth/Fried, AA 25: 470) And in the Prolegomena to Busolt (1788-89) he stresses that when observations of human beings are presented "systematically, then they are a science, which one calls 'anthropology'" (V-Anth/Busolt, AA 25: 1435). Similarly, in the Preface to Anthropology from a Pragmatic Point of View (1798), he stresses that a proper anthropology should be "systematically formulated" and "systematically designed" (Anth, AA 07: 119, 121).

But there are at least two problems with this softer strategy for defining science. First, it casts the net much too widely. Many disciplines are systematic without being scientific. For instance, in Kant's previously-referred to discussion of chemistry in MAN, he readily allows that it is a "systematic art (systematische Kunst)" and a "systematic art of analysis (systematische Zergliederungskunst)," but he still maintains that it can "never (niemals)" be a proper science "because its principles are merely empirical, and allow of no *a priori* presentation in intuition" (MAN, AA 04: 471). Many areas of human inquiry can make a legitimate claim to being systematic unities rather than mere aggregates, but relatively few of them can say in addition that they employ universal causal laws of nature that are mathematizable. Second (and this is a point that Sturm himself recognizes, albeit insufficiently),⁷ what exactly Kant means by "systematicity" is too vague and ambiguous to be of much use in distinguishing science from nonscience. For instance, on Kant's view a discipline has "inner" systematicity when its findings are united by an integrated point of view, and it has "external" systematicity when its boundaries are clear and don't "run together" with other sciences (Prol, AA 04: 265). But it is quite possible for a discipline to possess one of these two kinds of systematicity without possessing the other. Furthermore, Kant does not specify which type of systematicity is more important, nor does he tell readers when he uses the term "specificity" whether he is referring to both kinds or only one (and if the latter, which one).

A second, more popular response to Kant's strong criteria of science in *MAN* is not to reject the criteria themselves, but rather Kant's application of them. Chemistry, on this view, *is* mathematizable, and so is biology.⁸ And this strategy also coincides with the received view at present. Today these disciplines are regarded by nearly everyone as proper sciences, despite ongoing skepticism and debate regarding the status of the social or human sciences.

My own response to Kant's discussion of what constitutes proper science is influenced by my work on his anthropology. At first glance, Kant's anthropology clearly seems to fail his own criteria for science, particularly the two necessary criteria laid out in *MAN*: mathematization and replicable experiments. And yet, as I will show in what follows, he does repeatedly refer to his anthropology as a science, and there is a Kantian way to respond positively to the dual challenges of mathematization and replicable experiments. Should we thus conclude that, initial appearances to the contrary, his anthropology does in fact qualify as a science according to his own demanding criteria? Or is the price to be paid for this strategy too high? Can we, in other words, manage to resolve the paradox only by hiding or ignoring core aspects of his anthropology that simply won't fit into his science box, regardless of how much we or Kant may want them to? These are the questions that I will address in the final section of my paper.

2. ANTHROPOLOGY AS SCIENCE

In nearly all of the opening sections of his numerous lectures on anthropology that are currently available to us, Kant repeatedly describes his own anthropology as a *Wissenschaft*. And even in those few lectures where he does not explicitly describe anthropology as a science, one can readily infer from the context that he regards it as one. It is important – particularly for those who hold that Kantian anthropology is merely descriptive or reflective and cannot be an explanatory science – to take note of this simple linguistic point.⁹

For instance, in the opening sentence of Collins (1772-73) Kant states:

The science of the human being [*Die Wißenchaft des Menschen*] (anthropology) has a similarity to the physiology of outer sense, insofar as both the grounds of cognition are drawn from observation and experience. Nothing indeed appears to be more interesting for the human being than this *Wißenschaft*, and yet none is more neglected than precisely this one (V-Anth/Collins, AA 25: 7).

And he goes on to use the term *Wissenschaft* six more times in reference to anthropology in the Prolegomena to *Collins* (V-Anth/Collins, AA 25: 7-9). The above analogy between anthropology and physiology, along with the two disciplines' shared emphasis on observation and experience, provide additional support for the claim that Kant does indeed view anthropology as a science.

In the opening section of *Parow* (1772-73) Kant does not explicitly use the term *Wissenschaft* in describing anthropology. However, in referring to empirical psychology, which in this lecture as well as others (e.g., V-Anth/Mron, AA 25: 1214) is presented as part of the backdrop for his anthropology, he calls the former "a species of natural doctrine [*Naturlehre*]," and then adds that "we can expound this doctrine just as we do physics" (V-Anth/Parow, AA 25: 243). This comparison of empirical psychology (and by extension, anthropology) to physics is another clear sign that Kant does indeed view his anthropology as a science.

In the Preamble to *Friedländer* (1775-76), Kant states: "to observe human beings and their conduct, to bring their phenomena under rules [*unter Regeln*], is the purpose of anthropology"

(V-Anth/Fried, AA 25: 472, cf. V-Anth/Mensch, AA 25: 856). This central concern with rules or laws of human behavior¹⁰ is an important point that we will examine in more detail in the next section. It too signals that Kant does indeed view his anthropology as an explanatory science dealing with causal laws. And at the end of this Preamble, Kant again compares anthropology to physics, arguing now that the former "deserves just such effort" as the latter and that anthropology thus deserves "to be treated as a *Wissenschaft* in academia" and placed not within metaphysics but among the "empirical *Wißenschaften*" (V-Anth/Fried, AA 25: 473).

In the very short Prolegomena to *Pillau* (1777-78), Kant begins by arguing against those who believe that "it would be superfluous [*überflu/sig*] to make a *Wissenschaft*" of anthropology on the grounds that it requires "no discipline" and is "easy" (V-Anth/Pillau, AA 25: 733), and he concludes by referring to both physical geography¹¹ and anthropology – the two parts of *Weltkenntnifs* (knowledge of the world) – as "these two *Wissenschaften*" (V-Anth/Pillau, AA 25: 733).

In the opening sentence of the *Menschenkunde* transcription (1781-82), first published in 1831, Kant contrasts two different types of study. The first is "the brooding sciences [grüblerische Wissenschaften], which are of no utility to the human being." This type of study – referred to in other anthropology lectures as "scholastic" (e.g., V-Anth/Mron, AA 25: 1209) – is merely "Wissenschaft for the school, but one could not obtain any enlightenment for common life from it" (V-Anth/Mensch, AA 25: 853). The second type of study is anthropology, which by contrast extends knowledge "beyond the school" and aims "toward universal utility: this is study for the world" (V-Anth/Mensch, AA 25: 853). Later in this opening section he once again (as we saw earlier in *Friedländer*) stresses that the goal of anthropology is to discover rules or laws of human behavior:

our purpose is merely to draw up rules from the multiplicity that we perceive in human beings, for however incredibly different the human moods appear to be, still there is more regularity here than one would think. We will attempt to bring this play of human actions under rules (V-Anth/ Mensch, AA 25: 856).

Here again, in stressing the goal of bringing human actions *unter Regeln*, Kant signals that he views anthropology as an explanatory science concerned with causal laws.

In the opening chapter of *Mrongovius* (1784-85), Kant's only explicit use of the term '*Wissenschaft*' occurs when he briefly discusses the uses of anthropology with regard "to the *Wissenschaften*" (V-Anth/Mron, AA 25: 1211). But in the course of this discussion he employs yet another analogy that adds further support to the claim that he does view anthropology as a science: "Anthropology stands to morals as spatial geometry stands to geodesy" (V-Anth/ Mron, AA 25: 1211). As I noted elsewhere, the transcriber of this lecture "has unfortunately reversed Kant's intended analogy."¹² The analogy should read: "Anthropology is to morality as geodesy is to spatial geometry." 'Geodesy' is an obsolete term for land measurement or "that branch of applied mathematics which determines the figures and areas of large portions of the earth's surface" (*Oxford English Dictionary*). But by means of this (corrected) analogy, Kant indicates that he views anthropology as an applied science. And his explicit comparison of

anthropology to an applied *mathematical* science is also relevant to the mathematization issue discussed earlier.

In the Prolegomena to *Busolt* (1788-89 – note that this set lectures was delivered after the 1786 publication date of MAN) we find what is perhaps Kant's strongest declaration concerning the scientific status of anthropology:

When this observation of human beings (*anthropography*) is brought to a *Wissenschaft*, it is called 'anthropology', and one attains to this *Wissenschaft*:

- 1. through long and manifold experiences and through travels. . . .
- 2. If one makes attentive observations of oneself and with other human beings. . . . If through experiences without any aim and through observations we get knowledge of human beings for ourselves and present them in a connection, according to a certain method, or in a word, systematically, then they are a *Wissenschaft*, which one calls 'anthropology' (V-Anth/Busolt, AA 25: 1435).

Here as elsewhere, the references to experience, observation, and systematicity all serve to accentuate what he believes is the scientific status of the new discipline of anthropology.

Finally, the Preface to *Anthropology from a Pragmatic Point of View* (1798), the last set of lectures Kant gave for his annual course in anthropology. As we saw earlier, in this discussion Kant points out that "all attempts to arrive at such a science [*zu einer solchen Wissenschaft*] with thoroughness encounter considerable difficulties that are inherent in human nature itself" (Anth, AA 07: 120). The word "such (*solch*)" in this passage clearly refers to anthropology, and while Kant goes on to discuss the "considerable difficulties" in some detail, he by no means regards them as insurmountable hurdles to anthropology's becoming a science. Indeed, in the last sentence of the Preface he refers to "the growth of *Wissenschaft* for the common good" (Anth, AA 07: 122), and here too it is clear that he conceives anthropology as the *Wissenschaft* in question.

Kant's repeated descriptions of anthropology as a *Wissenschaft* in the opening sections of his Lectures on Anthropology, particularly when read in context along with his recurrent analogies between anthropology and physics, his repeated stress on discovering laws of human behavior, etc., should give pause to recent claims that Kant conceives anthropology "as nonexplanatory," that is, as one of the human sciences "that should settle for description,"¹³ or that Kantian anthropology is modeled not "on physics" but rather "on the reflective model of biology" and that it does "not aim to achieve knowledge that is true or false."¹⁴ For as we have seen, Kant himself does not describe his anthropology this way. Granted, we may decide after closer examination that his own descriptions of his anthropology are inaccurate. But we should not reach this conclusion without first considering carefully what he has to say on the matter.

3. ANTHROPOLOGY AND CAUSAL LAWS OF NATURE

We saw earlier that in several texts Kant places the quest for causal laws of human behavior at the center of the new discipline of anthropology. As he states in *Friedländer*: "to observe human beings and their conduct, to bring their phenomena under rules, is the purpose of anthropology" (V-Anth/Fried, AA 25: 472; cf. V-Anth/Mensch, AA 25: 856). Granted,

"the purpose" is an overstatement – Kantian anthropology is an eclectic and multifaceted project that cannot be boiled down to a single aim. And the transcriber's phrase "to bring their phenomena under rules" may sound a bit odd to the untrained ear. But anyone familiar with the basic claims of the critical philosophy can see that by means of this phrase he is alluding to Kant's core distinction between phenomena (the way things appear to us) and noumena (the way things are in themselves). Anthropology, as an empirical science, deals with observable aspects of human thought and action, and in its quest to being them under rules it operates on the assumption that these phenomena – like all other phenomena in nature – are determined according to universal causal laws.

Kant's clearest statement on this matter is perhaps his opening sentence in *Idea for a Universal History with a Cosmopolitan Aim* (1784):

Whatever concept one may form of the *freedom of the will* with a metaphysical aim, its *appearances* [*Erscheinungen*], the human actions, are determined [*bestimmt*] just as much as every other natural occurrence in accordance with universal laws of nature (IaG, AA 08: 17).

According to this view, human actions – like all other natural events – are determined according to universal laws of nature, and hence are subject to the basic laws of physics.

True, Kant is talking about history here rather than anthropology, but elsewhere he describes the two disciplines as being "mutually bound up with each other" (V-Anth/Mron, AA 25: 1212). Building on the work of other German Enlightenment historians such as Johann David Köhler, Thomas Abbt, Johann Christoph Gatterer, and Johann Mattias Schroeckh, Kant repeatedly advocates a distinctively "pragmatic history," a history that will be more useful than the traditional "scholastic history."¹⁵ And the usefulness of the former (and uselessness of the latter) stem largely from the fact that pragmatic history is concerned with explanatory causal laws of human action, whereas scholastic history rests content with mere descriptions of events. For instance, in his *Blomberg Logic* lectures, Kant states: "That history which becomes useful through universal rules is called pragmatic. . . . If one learns merely the names of sovereigns and knows their reigns, then this provides little material for the use of reason" (V-Lo/Blomberg, AA 24: 297). In the *Mrongovius* lecture on anthropology he expands on this theme, sharply distinguishing the two histories from one another, and showing why anthropology is necessary for pragmatic history:

History is of two kinds:

- 1. scholastic, when I know only what occurred; and
- 2. pragmatic, when I investigate the private aims of human beings and the public aims of the commonwealth.

Pragmatic history really provides a benefit [*einen Nutzen*], for if I know history only scholastically, it serves me just as much as a fairy tale or novel does.

Now anthropology is indispensably necessary [*unumgänglich nöthig*] for pragmatic history. For how can we reason about a history, if we do not know human beings and are not able to explain through their inclinations and passions the causes [*die Ursachen*] of events? (V-Anth/Mron, AA 25: 1212).

Anthropology's job, as Kant sees it, is to find causal connections between human inclinations, passions and thoughts on the one hand and the resulting actions that stem from them on the other, and he clearly views anthropology as an explanatory science here. Without this crucial knowledge of human nature (viz., which inclinations, passions, and/or thoughts cause which actions?) the historian does not know where to direct his or her attention. As Kant notes in the *Menschenkunde* lecture: "another source of anthropology is history, but of course an anthropology must be there beforehand: for if I do not know what I have to give attention to, then through the historical narrative alone I will not know what I should observe" (V-Anth/ Mensch, AA 25: 857-58).

Kant's repeated emphasis on anthropology as an attempt to bring human actions under rules is very similar to Hume's earlier description of history in his famous discussion of liberty and necessity in *An Enquiry Concerning Human Understanding* (1748). For here Hume too argues – albeit without using the term 'anthropology' – that the chief benefit of history is its discovery of universal causal laws of human behavior, and that it is in virtue of this benefit that history should form the basis for the new science of man:

Mankind are so much the same, in all times and places, that history informs us of nothing new or strange in this particular. Its chief use is only to discover the constant and universal principles of human nature, by showing men in all varieties and circumstances and situations, and furnishing us with materials from which we may form our observations and become acquainted with the regular springs of human action and behaviour. These records of wars, intrigues, factions, and revolutions, are so many collections of experiments, by which the politician or moral philosopher fixes the principles of his science, in the same manner as the physician or natural philosopher becomes acquainted with the nature of plants, minerals, and other external objects, by the experiments which he forms concerning them.¹⁶

So it is clear both that Kant thinks causal laws play a crucial explanatory role in science, and that anthropology properly concerns itself with such laws. But what about his mathematization requirement? Are anthropology's causal laws mathematizable? Can we, in other words, construct concepts of the objects of anthropological investigation in pure intuition, thereby giving a mathematical account of them (see MAN, AA 04: 470)? Some commentators point to the paucity of Kantian texts on this matter as settling the issue. Sturm, for instance, notes, "Kant never even considers the idea of a 'mathematical construction' of . . . causal principles governing the 'anthropological' features of our lives."¹⁷ However, in the opening paragraph of Idea for a Universal History Kant does briefly discuss the use of mathematics in at least some of the anthropological features of our lives. Referring to the annual tables of birth, marriage, and death rates that statisticians in many countries prepare, he notes that these human events "happen just as much in accordance with constant laws of nature, as weather conditions" (IaG, AA 08: 17). So if - as Kant clearly holds - the causal laws that determine human actions are the same causal laws that determine other natural events (i.e., the basic laws of physics), then it would seem that anthropology's causal principles are in principle mathematizable. For he certainly holds that the laws of physics are mathematizable. The fact that he never explicitly raises this issue in his anthropology lectures – lectures which are after all designed "to be read by everyone, even by women at the dressing-table" (V-Anth/Mensch, AA 25: 857) - doesn't show that it can't be done. The popular readership goal of these lectures suggests rather that he thinks they are not the proper place for such a discussion – to examine the mathematization issue in them would scare off potential readers. As he remarks in *Mrongovius*:

a solid knowledge of the human being interests everyone and provides material for conversation, even for a woman. . . . [A]ll that is abstract, namely, what one must for the most part examine [only] with great effort, thus does not belong here (V-Anth/Mron, AA 25: 1213).

4. ANTHROPOLOGY AS AN EXPERIMENTAL SCIENCE

As we saw earlier, Kant's second necessary criterion for proper science concerns experiments that can be replicated by other investigators. In order for a discipline to qualify as a proper science, it must be possible to perform repeatable experiments on the data that are the subject matter of the candidate discipline. For instance, in the Preface to *MAN*, Kant claims that one reason why empirical psychology is not a proper science is that it is impossible to perform repeatable experiments on human mental states, in part because "observation by itself already changes and displaces the state of the observed object" (MAN, AA 04: 471). In other words, someone who knows that they are being looked at will often act differently than they would if they weren't being looked at. And because Kantian anthropology shares empirical psychology's concern with human mental states, it would seem that it too will fail to be a proper science. For anthropology also seems to fail the necessary criterion of repeatable experimentation. As Kant remarks in the *Busolt* transcription, humans cannot be observed "through experiments [*durch Experimenten*]" because as soon as the subject notices that he is being observed, "he will do precisely the opposite of what one wants him to do" (V-Anth/ Busolt, AA 25: 1437).

But my aim in the present section is to show that Kant does not quite accept the strong conclusion that anthropology cannot be an experimental science. "Not quite accept" because while he does acknowledge that the facts of human self-consciousness and our propensity to dissemble makes reliable experimentation with this particular subject extremely difficult ["one can indeed make experiments with animals and things, but not with human beings" (V-Anth/Busolt, AA 25: 1437)], he thinks he has found a way around the problem. In the opening sections of his Lectures on Anthropology (and these sections are generally his best discussions regarding methodological issues in anthropology), Kant repeatedly acknowledges the "considerable difficulties" (Anth, AA 07: 121; cf. V-Anth/Mensch, AA 25: 857, V-Anth/Mron, AA 25: 1214, V-Anth/Busolt, AA 25: 1437) confronting attempts to perform replicable experiments on human subjects, but he thinks he has found a satisfactory solution to these difficulties.

Here as elsewhere, Kant owes a considerable debt to Hume. For as we saw earlier (n.3), Hume too acknowledges that one central difficulty in developing a science of human nature is the problem of replicable experiments. In the Introduction to the *Treatise* he admits that the science of human nature

has, indeed, this peculiar disadvantage, which is not found in natural [science], that in collecting experiments, it cannot make them purposely, with premeditation, and after such a manner as to satisfy itself concerning every particular difficulty which may arise.

Humans do not live in controlled laboratory conditions, and if a researcher tries to place them in such settings, his subjects' self-consciousness and tendency to dissemble will often distort any observation-based conclusions drawn from this uncomfortable scenario. However, Hume's way out, as we also saw earlier (n. 14), involves an appeal to history:

These records of wars, intrigues, factions, and revolutions are so many collections of experiments, by which the politician or moral philosopher fixes the principles of his science, in the same manner as the physician or natural philosopher becomes acquainted with the nature of plants, minerals, and other external objects, by the experiments which he forms concerning them.

By observing human behavior in different time periods, researchers can construct a much larger database (or "collections of experiments"), one which will enable them to more accurately determine the causes of human behavior. New hypotheses can be tested against the existing database, and conclusions based on atypical observations of behavior that fall too far outside the empirical norm will be rejected.

Kant borrows and endorses Hume's history strategy in several of his anthropology lectures. For instance, in the early Collins lecture, he announces that he plans "to indicate the different ages [Älter]" of the human being. "From this will follow what is natural to the human being and what is artificial or habitual about him" (V-Anth/Collins, AA 25: 8). Similarly, in Pillau, Menschenkunde, and Mrongrovius history is explicitly mentioned as an important source of and aid to anthropology (V-Anth/Pillau, AA 25: 734, V-Anth/Mensch, AA 25: 857, V-Anth/ Mron, AA 25: 1212-13). And in Friedländer he again explicitly mentions history (as well as Hume's monumental *History of England*), but now argues that the history strategy needs to be extended still further into a "world history (Welthistorie)" - one that will give us a true "history of humanity" and also further help researchers in bringing the phenomena of human behavior "under rules" (V-Anth/Fried, AA 25: 472). The appeal to "world history (Weltgeschichte)" also appears later in Anthropology from a Pragmatic Point of View (Anth, AA 07: 121). In emphasizing the importance of world history for acquiring knowledge of human nature, Kant adds a crucial spatial and cross-cultural perspective to Hume's temporal perspective. By comparing different human cultures to one another we can extend our database still further, thus adding to the collections of experiments and offering researchers more insurance against local deviations from empirical norms of human behavior.

But in these later versions of the anthropology lectures, two additional interrelated strategies for dealing with the "no-repeatable-experiments objection" also surface. First, Kant also urges that several additional sources for and aids to acquiring knowledge of human nature be added to the mix, including *plays* – particularly Shakespeare's¹⁸ (V-Anth/Fried, AA 25: 472, V-Anth/Pillau, AA 25: 734, V-Anth/Mensch, AA 25: 858, V-Anth/Mron, AA 25: 1213, Anth, AA 07: 121); *essays* – particularly Montaigne's,¹⁹ Addison's,²⁰ and Steele's (V-Anth/Fried, AA 25: 472; cf. V-Anth/Collins, AA 25: 8, 193); *biographies* (V-Anth/Pillau, AA 25: 734, Anth, AA 07: 121); and *novels* (V-Anth/Pillau, AA 25: 734, V-Anth/Mensch, AA 25: 858, V-Anth/Mron, AA 25: 858, V-Anth/Mron, AA 25: 1213, Anth, AA 07: 121); and *novels* (V-Anth/Pillau, AA 25: 734, V-Anth/Mensch, AA 25: 80, V-Anth/Mron, AA 25: 1213, Anth, AA 07: 121; cf. V-Anth/Collins, AA 25: 8).²¹ By means of these additional

sources for and aids to anthropology, the database of knowledge concerning the causes of human behavior can be extended still further. Furthermore, he now argues that the arts and humanities can also make their own important contributions to the new human sciences. Granted, Kant frequently issues warnings concerning fiction writers' imaginative flights of fancy (V-Anth/Mensch, AA 25: 858, V-Anth/Mron, AA 25: 1213, Anth, AA 07: 121), but even here – perhaps in an appreciative nod toward one of Descartes' conclusions regarding his famous "dream hypothesis"²² – he concludes that even though the characters and situations they describe often contain exaggerations ("as if in a dream"), "the *main features* must have been taken from the observation of the real actions of human beings: for while they are exaggerated in degree, they must nevertheless correspond to human nature in kind" (Anth, AA 07: 121).

Kant's second strategy for dealing with the no-repeatable-experiments objection is to point out that certain individuals are simply more insightful observers of human behavior than others, and that those of us in the latter group should listen to them. Anthropology arises, he notes in *Friedländer*, "through the collection of many observations about human beings by those authors who had acute knowledge of human beings" (V-Anth/Fried, AA 25: 472), and many of us clearly lack such knowledge. Indeed, "only a person who already has some knowledge of the human being can use" history, novels, plays and biographies in order to acquire anthropological knowledge, "and only such a person can produce" (V-Anth/Mron, AA 25: 1213) such aids to anthropology in the first place. What does the insightful observer of human nature have that the rest of us lack? "Strong reflection" and "an attentive eye" are of course both required (V-Anth/Pillau, AA 25: 734), but in the end it seems to be a special gift that is bestowed only on a lucky few. Particularly in the case of a genius such as Shakespeare (see n. 17), we are talking not about a skill "which can be learned in accordance with some rule," but rather about a talent "for which no determinate rule can be given" (KU, AA 05: 307).

In the end, Kant does acknowledge that the "considerable difficulties" which stand in the way of performing replicable experiments on human beings are themselves ineliminable. But he also argues that resourceful investigators of human nature can find a satisfactory way around these difficulties. For researchers can test their hypotheses about the causes of human action against the panoramic and multi-disciplinary data collectively forged by historians, playwrights, biographers, essayists, and novelists, and – above all – by those fortunate authors who possess "a deep understanding of the human being." And other researchers can also replicate the earlier experiments by testing the same hypotheses against the same growing collection of experiments. Finally, new experiments can also be conducted, experiments which will serve either to contribute fresh insights to our knowledge of ourselves or to further strengthen the earlier analyses of our predecessors.

5. A SCIENCE LIKE NO OTHER?

I have argued that the two necessary criteria for proper science defended by Kant in the Preface to MAN - viz., causal laws that can be expressed mathematically and replicable experiments – are both in principle realizable in anthropology. So where does this leave us? Is Kantian anthropology in fact a proper science? Or are we able to assert this only if we hide those less tidy aspects of his anthropology project that won't fit onto the Procrustean bed of science?

In earlier writings I have argued that Kantian anthropology is "not at all a Weberian valuefree social science whose ends are either indigenous to theory or entirely arbitrary," but rather something which from the start is "a deeply value-embedded and morally guided enterprise."²³ But is not science too a value-embedded and morally guided enterprise? From Plato through Habermas, philosophers have repeatedly argued that values and norms come before facts and make facts possible, and that all forms of rational communication and argumentation necessarily presuppose adherence to basic moral norms such as honesty, freedom of inquiry, equal rights to participate, and noncoercion.²⁴ And if it is indeed true that the idea of the good is "the cause of knowledge and truth,"²⁵ then we can't claim that Kantian anthropology is not a science simply because it is a value-embedded and morally guided enterprise. For this is also true of physics, Kant's paradigm of science.

But while moral norms and values may well be indigenous to the practice of science itself, there remains an additional aspect of Kantian anthropology which still makes it difficult to square with science. And this is its unabashedly plural and eclectic nature - "one revealing various origins, competing concerns and aims, and multiple possibilities of application."26 Part of Kantian anthropology's origin and aim is indeed scientific - and, or so I have argued, it exhibits this concern and aim in a stronger sense than many commentators have realized. But other parts of Kantian anthropology are pragmatic and moral - 'moral' not just in the fundamental sense that anthropology, like all science, "is far from standing on its own," and "requires in every respect first a value-ideal"²⁷ – but in the more specific and problematic sense that it is ultimately placed in the service of the overarching moral goal of showing human beings what they need to do in order to reach their collective destiny. And this particular dimension of Kantian anthropology does have a deeper connection to moral value than physics does - indeed, in Kant's hands it becomes a type of empirical practical philosophy, "philosophia moralis applicata, moral anthropology, to which the empirical principles belong" (V-Mo/Mron II, AA 29: 599). At the same time, not every student of human nature will choose to employ Kantian anthropology in this boldly normative manner, a fact of which Kant himself was well aware. And so in the end, we are left with a discipline that can be kept within the bounds of science by those determined to do so, but one which can also easily break free of these bonds. But this too seems entirely appropriate for lectures that are designed "to be read by everyone" (V-Anth/Mensch, AA 25: 857).28

KEYWORDS: Kant - anthropology - science - causal laws - replicable experiments.

ABSTRACT: In this essay I begin by examining Kant's criteria for "proper science" as presented in the Preface to his Metaphysical Foundations of Science, and then ask whether Kantian anthropology can possibly qualify as a proper science according to these demanding criteria. I defend a qualified 'yes' answer to this question, while also drawing attention to several less tidy aspects of his anthropology project that are difficult to fit onto the Procrustean bed of science.

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Notes

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2 Сонем (2009, р. хіі).

3 Courtney D. Fugate and John Hymers have recently prepared an English translation of the fourth edition (1757) Baumgarten's *Metaphysica* (which includes his discussion of both empirical and rational psychology). See BAUMGARTEN (2013, esp. p. 198-279). Baumgarten refers explicitly albeit briefly to anthropology in §747 of this text when he states: "philosophical and mathematical knowledge of the human being is possible . . . , i.e. philosophical ANTHROPOLOGY and mathematical anthropology." For discussion of Baumgarten's empirical psychology and its influence on Kant's anthropology, see STURM (2009, p. 60-65). Earlier discussions include HINSKE (1966, p. 413); and ERDMANN (1882, p. 3).

4 Here as elsewhere, Kant owes a debt to Hume. In his *Treatise of Human Nature*, Hume notes that the science of human nature "has this peculiar disadvantage, which is not found in the natural, that in collecting its experiments, it cannot make them purposively, with premeditation, and after such a manner as to satisfy itself concerning every particular difficulty which may arise" (HUME, 1978, p. xviii-xix). However, as I will show later, both Hume and Kant think that they have found a way around this "no replicable experiments" objection to anthropology's being a science.

5 RAUSCHER (forthcoming) as well as in his earlier paper (2009, p. 141-67) argues that what is to count as a proper law of nature (and hence also a science) for Kant must adhere to seven different constraints. However, his analysis is not confined to Kant's discussion of proper science in *MAN*. I am indebted to several points in Rauscher's analysis in this first section of my essay.

6 STURM (2009, p. 127-182). See also my review of Sturm's book in *Notre Dame Philosophical Reviews*, June 13, 2012. STURM does briefly refer to Kant's *MAN* criterion of mathematizability later in Chapter IV (2009, p. 192-94). The position he defends in this chapter – viz., that appearances to the contrary Kant does not regard "an empirical science of human thoughts, feelings, or desires as impossible" (50) is closer to the position I shall defend later. See also STURM's earlier essay (2001, p. 163-84).

7 Sturm (2009, р. 175).

8 See, e.g., FRIEDMAN (2006, p. 328). See also FRIEDMAN'S more recent work (2013, esp. 240-58, 590-94). Rauscher also adopts this strategy in (RAUSCHER, forthcoming).

9 Granted, German authors, particularly in the past, have often employed the term '*Wissenschaft*' in a wider sense than the English 'science'. But while I agree that the question of the scientific status of anthropology cannot be definitely resolved simply by means of the linguistic strategy of seeing whether anthropology is described as a *Wissenschaft*, I do think that the passages cited below constitute strong evidence that Kant himself believes that his anthropology is a proper science. Whether he is correct in this belief is of course a separate matter.

10 Granted, KANT also discusses noncausal laws of human behavior – viz., *moral* laws – in other works. For instance, in the Preface to the *Groundwork* he states: "Everyone must admit that a law [*ein Gesetz*], if it is to hold morally, that is, as a ground of obligation, must carry with it absolute necessity [*absolute Nothwendigkeit*]" (*GMS* 4: 389). But Kantian moral laws are a priori – they "must not be sought in the nature of the human being or in the circumstances of the world in which he is placed" (*GMS* 4: 389). The causal rules for human behavior discussed in the anthropology lectures, by contrast, are based on observations of human behavior.

11 As one might suspect, there has also been an ongoing debate over the scientific status of Kan's physical geography. For discussion and references, see LOUDEN (2014, especially the section entitled "Geography as an Essentially Contested Concept", p. 5-9).

12 LOUDEN (2000, p. 202 n.32).

13 Makkreel (2001, p. 199).

14 Сонем (2009, р. хіі).

15 For discussion and references, see LOUDEN (in press).

16 Ниме (1975, р. 83-84).

17 Sturm (2001, р. 180). See also Nayak/Sotnak (1995, р. 133-51).

18 "The plays of Shakespeare are masterpieces because he had a deep understanding [*eine tiefe Erkenntnifs*] of the human being" (V-Anth/Mron 25: 1213).

19 However, Montaigne is much more sympathetic to cultural relativism than either Hume or Kant. For instance, he begins "Of the Inconsistency of Our Actions" by observing: "Those who make a practice of comparing human actions are never so perplexed as when they try to see them as a whole and in the same light; for they commonly contradict each other so strangely that it seems impossible that they have come from the same shop" (MONTAIGNE, 1976, p. 239). Because Kant seeks knowledge of "the nature of humanity" in his anthropology, a knowledge that is not "bound to time and place" and that "must suit all kinds of human beings" (V-Anth/Fried 25: 471), it is very difficult to imagine him agreeing with Montaigne on this key issue.

20 In his Introduction to *The Spectator*, Addison writes: "I live in the World, rather as a Spectator of Mankind, than as one of the Species; by which means I have made my self a Speculative Statesman, Soldier, Merchant and Artizan, without ever meddling with any Practical Part in Life. . . In short, I have acted in all the Parts of my Life as a Looker-On, which is the Characteristic I intend to preserve in this Paper" (ADDISON, 1964, p. 59). This "Spectator of Mankind" perspective is precisely what Kant feels is needed in order to acquire knowledge of the nature of humanity.

21 For related discussion concerning Kant's views about novels, see LOUDEN, "'Firm as a Rock in Her Own Principles' (But Not Necessarily a Kantian)," in ______. (2011, p. 38-45).

22 "It must surely be admitted that the visions which come in sleep are like paintings, which must have been fashioned in the likeness of things that are real, and hence that at least these general kinds of things – eyes, head, hands and the body as a whole – are things which are not imaginary but are real and exist" (DESCARTES, 1984, II, p. 13).

23 LOUDEN, Introduction. In: KANT (2007, p. 2). See also LOUDEN (2011, p. 64, 77).

24 For related discussion and a more detailed defense of this claim, see LOUDEN (2012, p. 117-37; 2013, p. 23-43; and forthcoming.

25 Plato, Republic 508e.

26 Louden (2011, p. 69).

27 NIETZSCHE, On the Genealogy of Morality, III: 25.

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