

Kant on Descartes and the Brutes

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I. Introduction¹

A well-known feature of Descartes' mind/body dualism is his animal-machine hypothesis, which claims that non-human animals ("brutes") are nothing more than divinely-crafted machines. Indeed *all* animate bodies (brute as well as human) are such machines in Descartes' system but, while each human is a machine united with a rational soul, brutes are nothing but machines. Descartes' argument for these

¹ Emphases in the quoted passages are in the original. Citations of Kant's works refer to the Academy edition (abbreviated as 'Ak'): *Kants gesammelte Schriften*, edited by the Königlich Preussische Akademie der Wissenschaften (1910-), with the following exceptions: *Kr. d. r. V.* (which is cited using the standard A/B pagination), *Anweisung, Menschenkunde, and Sömmering* (see below). I provide reference to an English translation when available. The following abbreviations are used in citing individual writings and lecture notes (with their presumed dates of origin): *Anth.* (*Anthropologie in pragmatischer Hinsicht*, 1798; translated by Mary Gregor as *Anthropology from a Pragmatic Point of View*, Martinus Nijhoff, 1974), *Anweisung* (*Anweisung zur Menschen- und Weltkenntnis*, lecture notes from WS 1790/1, edited by F. C. Starke, 1831, reprinted as an appendix to *Menschenkunde*, Hildesheim: Georg Olms Verlag, 1976), *Aufklärung* (*Beantwortung der Frage: Was ist Aufklärung?*, 1784; translated by Ted Humphrey as *An Answer to the Question: What is Enlightenment?*, in Kant, *Perpetual Peace and Other Essays*, translated by Humphrey, Hackett Publ., 1983), *Beweisgrund* (*Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes*, 1763), *Colleg. Anth. 70s* ("Entwürfe zu dem Colleg über Anthropologie aus den 70er Jahren"), *Colleg. Anth. 80s* ("Entwürfe zu dem Colleg über Anthropologie aus den 80er Jahren"), *Deutlichkeit* (*Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral*, 1764; translated by D. E. Walford as *Enquiry concerning the clarity of the principles of natural theology and ethics*, in Kant, *Selected Pre-Critical Writings*, edited by Kerferd and Walford, Manchester U.P. 1968), *Frieden* (*Zum Ewigen Frieden*, 1795; translated by Ted Humphrey as *To Perpetual Peace*, in Humphrey, *op. cit.*), *Geschichte* (*Idee zu einer allgemeinen Geschichte in weltbürgerlicher Absicht*, 1784; translated by Ted Humphrey as *Idea for a Universal History with a Cosmopolitan Intent*, in Humphrey, *op. cit.*), *Theorie des Himmels* (*Allgemeine Naturgeschichte und Theorie des Himmels*, 1755), *Kr. d. p. V.* (*Kritik der praktischen Vernunft*, 1788; translated by L. W. Beck as *Critique of Practical Reason*, Bobbs-Merrill, 1956), *Kr. d. r. V.* (*Kritik der reinen Vernunft*, 1781 [1st ed]/1787 [2nd ed]; translated by Norman Kemp Smith as *Critique of Pure Reason*, Macmillan, 1933), *Kr. d. U.* (*Kritik der Urteilskraft*, 1790; translated by J. H. Bernard as *Critique of Judgment*, New York: Hafner Press, 1951), *Logik* (edited by Jäsche, 1800; translated by R. S. Hartman and W. Schwarz as *Logic*, Bobbs-Merrill, 1974), *M. A. d. N.* (*Metaphysische Anfangsgründe der Naturwissenschaft*, 1786; translated by James Ellington as *Metaphysical Foundations of Natural Science*, Hackett Publ., 1985), *Menschenkunde* (anthropology lecture notes from 1778/9 or 1787/8, edited by F. C. Starke, 1831, reprinted in 1976, Hildesheim: Georg Olms

claims is straight-forward, if not convincing: the behavior of brutes, but not of humans, is explicable in purely mechanical terms.² In this paper, however, I wish not to defend or attack Descartes' hypothesis, but rather to discuss Kant's reaction to it. In doing so several key issues in the Kantian philosophy – especially the nature of consciousness, matter, and explanation – are considered from a helpful yet seldom assumed perspective, namely, Kant's views on the brutes.

Brutes appear to have the same mechanical status in Kant's system of nature as they have in Descartes': the doctrine of universal causality of the phenomenal world (which is a direct and desired consequence of arguments in the *Critique of Pure Reason*), coupled with Kant's belief that only humans enjoy a noumenal agency (if anything does) certainly suggests an animal-machine hypothesis similar to Descartes'. Likewise, Kant believed brute behavior to be explicable without attributing to them a non-sensuous faculty like reason or understanding.

Consequently, one might feel well-advised to ignore the *rejection* of Descartes' hypothesis in Kant's metaphysics lectures from the early 1760's as part of a pre-critical position that was later abandoned; likewise with similar comments in the *Dreams of a Spirit-Seer* (1766), another "pre-critical" work. But that the hypothesis is again rejected in the *Critique of Judgment* (1790), a mature work by any standards, suggests that we must reconcile Kant's doctrine of universal mechanism with his rejection of Descartes' animal-machine hypothesis. In §2 I review those passages wherein Kant discusses and rejects Descartes' animal-machine hypothesis, while I suggest in §3 the grounds for this rejection: Kant believed that brutes "act in accordance with representations", which he took to be incompatible with Descartes' hypothesis. Unfortunately, Kant repeatedly denies that brutes are conscious, making it appear that he endorsed something like Descartes' hypothesis after all; this and other problems raised by Kant's discussion of consciousness are addressed in §4. I consider in §5 those passages in which Kant refers to brutes and animality as "mechanical", which are also seemingly inconsistent with Kant's earlier rejection of the animal-machine hypothesis, although consistent with his rejections of brute consciousness.

Verlag), *MP Arnoldt* (lecture notes from a course on metaphysics given in WS 1794/5), *MP Dohna* (notes from WS 1792/3), *MP Herder* (notes from 1762–4), *MP Mrongovius* (notes from WS 1782/3), *MP Pöhlitz* (notes from WS 1778/9 or 1779/80), *MP Volckmann* (notes from WS 1784/5), *Phil. En.* ("Philosophische Enzyklopädie", SS 1775), *Ref. Anth.* (*Reflexionen zur Anthropologie*), *Sömmering* (remarks printed with S. T. Sömmerings *Über das Organ der Seele*, 1796; reprinted in Weischedel, ed., *Werkausgabe*, Frankfurt am Main: Suhrkamp Taschenbuch Verlag, 1977, vol. xi, pp. 235–59), *Syllogism* (*Die falsche Spitzfindigkeit der vier syllogistischen Figuren erwiesen*, 1762; translated by Thomas Abbott as *The Mistaken Subtlety of the Four Figures in Kant's Introduction to Logic*, London: Longmans, Green, 1885), *Träume* (*Träume eines Geistersehers*, 1766; translated by Emmanuel Goerwitz as *Dreams of a Spirit-Seer*, London: Swan Sonnenschein, 1900), *Tugendlehre* (Part two of *Die Metaphysik der Sitten*, 1797; translated by Mary Gregor as *The Doctrine of Virtue*, Harper and Row, 1964).

² See, for instance, Descartes' comment in a reply to Arnauld: "all the actions of brutes resemble only those of ours that occur without the aid of the mind" (*The Philosophical Works of Descartes*, translated by Haldane and Ross, 2 vol., Cambridge: Cambridge U. P., 1968, ii. 104).

In the final three sections (§6–8) I attempt to illuminate certain broad motivations behind Kant's discussion of brutes, motivations which also dispel the apparent inconsistency of Kant assigning brutes to the mechanism of nature while rejecting Descartes' hypothesis. Kant believed brutes to be completely enmeshed in the mechanical nexus of the phenomenal world, with nothing like noumenal agency to offer them the theoretical underpinnings of practical freedom. Consequently, Kant thought of brutes as machines – but not as the materially-explicable machines of Descartes. Kant found the needed distinction in Leibniz: brutes are machines of a spiritual as opposed to a material nature.

II. Kant's rejection of the hypothesis

We have first to consider a passage from one of Kant's lectures on empirical psychology recorded by Herder in the early 1760's. In this passage concerning the nature of freedom is the comment that "Animals are not machines, but they act like them, where desire is considered an extra gear".³ And later in the semester, in a lecture on rational psychology, we find this startling paragraph: "Consequently, merely according to the similarity [of our external behavior] do I judge that the inner condition of the other [i. e. the brute] involves thinking and sensing like mine, for my behavior is regarded by him just as his is regarded by me. I therefore have just as much cause not to take him as a machine as to take myself as one. The dog moves itself, seizes things, cries – thus are animals thinking beings that have desires, grounds for acting. Just as Descartes had the paradoxical opinion of animal-machines, so must I likewise say of humans and of myself as well, only to a greater degree: if that one howls like a machine, then I speak like one".⁴

In his *Dreams of a Spirit-Seer*, published in 1766, Kant again rejects the animal-machine hypothesis, this time for explanatory reasons. He first mentions the hypothesis in a discussion of the different biological theories of Maupertuis, Boerhaave, Hoffmann, and Stahl: "Maupertuis attributed the lowest level of life to organic food particles of animals; other philosophers [e.g. Hoffmann, Boerhaave] see nothing in them but dead clumps which only serve to enlarge the gears of the animal machines".⁵ Kant then notes his reservations concerning non-mechanistic accounts in science, but suggests that

³ *MP Herder* (Ak 28:99). Another rejection of the Cartesian hypothesis can be found in the metaphysics lecture-notes stemming from the late 1770's and edited by Pölitz (the *MP Pölitz*, Ak 28:274–75): "Animals are not merely machines or matter, but have souls..."

⁴ *MP Herder* (Ak 28:116). This is one of the few passages where the "problem of other minds" is hinted at, and Kant's sympathy is clearly with an analogical argument from overt behavior. That he takes the analogy so much farther in this lecture than in more reliable works suggests that we have here more polemic than indication of Kant's true sentiments (if not merely Herder's own view at the time). Kant nowhere else, for instance, ever allows that brutes can *think*; thought is a product of the faculty of the understanding, which Kant denies the brutes. On the question of other minds, see also the section on egoism in *Anth.* (Ak 7:128–31; Gregor, pp. 10–13).

⁵ *Träume* (Ak 2:330; Goerwitz, p. 57).

such accounts are at times appropriate – a foreshadowing of his later view, most notably expressed in the *Critique of Judgment*, that non-mechanical accounts must comprise the bulk of the life sciences: “The appeal to immaterial principles [as Stahl had done] is a refuge of lazy philosophy, and is a mode of explanation to be avoided if at all possible . . . I am nevertheless convinced that Stahl, who wished to explain animal changes organically, was often closer to the truth than Hoffmann, Boerhaave, and others, who omitted immaterial powers, holding instead to mechanical grounds . . .”⁶

Kant again explicitly rejects the animal-machine hypothesis in the *Critique of Judgment*. Towards the end of that work, he considers possible proofs of the existence of God, including proofs by analogy, and in a footnote explains how an analogy between humans and God might work by considering analogies between humans and brutes. This context offered him yet another occasion to mention Descartes’ hypothesis: “We conceive of the artificial constructions of beasts by comparing them with those of men, by comparing the ground of those effects brought about by the former, which we do not know, with the ground of similar effects brought about by men (reason), which we do know . . . Yet from the similarity of the kind of effect of beasts (the ground of which we cannot immediately perceive) to that of humans (of which we are immediately conscious), we can quite rightly conclude according to analogy that beasts too act in accordance with representations (not as Descartes has it, that they are machines), and that despite their specific difference they are yet generically (as living beings) one and the same as humans”.⁷ There is much of interest in this passage, but what concerns us is that, first, it provides a rejection of the Cartesian hypothesis from late in Kant’s career, and second, it suggests *why* Kant rejected that hypothesis.

III. *Brutes have representations, feelings, and desires*

The above passage suggests that Kant believed “that beasts too act in accordance with representations [Vorstellungen]”, which he considered incompatible with their being machines. That it is the brute’s capacity for representations which is at issue here is further supported by the Volckmann notes of a metaphysics lecture on psychology: “We call an animal ‘living’ because it has the capacity to follow its own representations, even to alter its condition. Descartes, and later Malebranche, maintained that the animal’s principle of life has no *vim repraesentativam*, and that they act only according to general laws of matter. But to think of animals as machines is not possible, for one would then deviate from all analogies of experience, and the proposition that man himself is a machine is utter lunacy, for we are even conscious of our own representations, and all of natural science rests on the proposition that matter cannot have representations. Everything machine-like is external and consists in relations in space: our thought can of course concern itself with things in space, but it is not itself in space;

⁶ *Träume* (Ak 2:331; Goerwitz, p. 58–59).

⁷ *Kr. d. U.* (Ak 5:464n; Bernard, pp. 315–16n).

but thoughts would have to be objects of outer intuition if they were machines. That thought is a mechanism is therefore absurd, which would be to make thought an object of outer sense for its own consciousness. Matter might indeed be a necessary requirement for the support of our thoughts, but thought itself is not mechanical”.⁸

Machines lack mental lives in both Descartes’ and Kant’s accounts, and representations are taken as unequivocally mental. But since brutes have representations, according to Kant, then brutes are not machines. Further, while Kant may have believed that thoughts depend upon certain motions within the central nervous system (CNS), he explicitly rejected the view that thoughts and the mind are *located* in the CNS.⁹ Given the many passages attributing representations to brutes, we would appear to have found in this a satisfactory motivation for Kant’s rejection of the animal-machine hypothesis.¹⁰

Kant further expanded the mental lives of brutes by attributing *feelings* and *desires* to them, as is implied in the following denial of brute understanding: “The human has sense to perceive, understanding to think, and a will to choose or reject. If he had nothing more than a sensitive faculty for representing and desiring, he would be like a sensitive plant or a mollusk. Only he has understanding”.¹¹ Likewise, in a discussion in the Herder notes on the properties of a thinking being, we find that “all thinking beings have three dimensions: (1) representation – e. g. Leibniz’s monads, (2) representations and feelings, thus desire, actions, and nothing more, e. g. animals [acting] outwardly not from thoughts. The outer change of a being from the inner principle is thinkable merely through choice [Willkür], (3) consciousness of the entire condition of the representations and desires. We know of only humans with these three abilities, and more are not thinkable”.¹²

Finally, in a letter to Marcus Herz (26 May 1789) Kant implicitly attributes “feelings and a faculty of desire” to brutes; and indeed, the mere fact that brutes can sense

⁸ *MP Volckemann* (Ak 28:449). See the parallel definitions of ‘life’ mentioned in §6, below.

⁹ See §6, below, where I discuss Kant’s belief that matter cannot generate thoughts, and also *MP Pölitz* (Ak 28:225, 281–82), and the discussion and passages cited in Karl Ameriks, *Kant’s Theory of Mind*, Oxford: Clarendon Press, 1982, pp. 99–108.

¹⁰ See *MP Herder* (Ak 28:117): if Leibniz’s monads have representations, so do brutes; *MP Pölitz* (Ak 28:274): “beings, which have mere sensitivity and the power of representations – and these are animal souls”; *ibid.* (28:276): “therefore animals have all the representations of the outer senses”; *Logik Mrongovius* (Ak 29:1047): “Animals have such representations, but no concepts”; the *Letter to Marcus Herz* (26 May 1789, AK 11:48–53): sense-data “would still (if I thought of myself as an animal) be bound together as representations”; *Letter to Beloselsky* (summer 1792, Ak 11:330–33): “the mere apprehension of the representations . . . is solely for the brutes”; *MP Arnoldt* (Ak 29:929, 1033): the *vis repraesentiva* of Leibniz’s monads; *Refl. Anth.* (Ak 15:166): “Animals have apprehensions, but not apperceptions and cannot, therefore, make their representations universal.”

¹¹ *Handschriftlicher Nachlaß: Logik* (Ak 16:7).

¹² *MP Herder* (Ak 28:117). On the inconceivability of non-human thinkers, see also *Anth.* (Ak 7:172; Gregor, p. 48): “It is noteworthy that the only form we can think of as most suitable for a rational being is the human form”; and see *Kr. d. r. V.* B 409.

suggests that they share with humans the standard panoply of feelings and with these feelings the desires to experience pleasures and avoid pains.

IV. *Are brutes conscious?*

Kant clearly attributed representations to brutes, but whether he considered them to be conscious as well is problematic given his several *denials* of brute consciousness. Patricia Kitcher poses a dilemma concerning the brutes: either brutes are without consciousness (in which case Kant is saddled with the animal-machine hypothesis), or brutes serve as examples of conscious beings which are not self-conscious (which, according to certain interpretations, is inconsistent with his claims in the Transcendental Deduction).¹³ This captures part of the problem we are facing, but not quite all, for it appears beyond dispute that Kant believed brutes to have representations, and this alone is incompatible with Descartes' animal-machine hypothesis. There are, rather, two problems that need to be addressed: first, how shall we deal with Kant's denials of brute consciousness? These denials are problematic because it is widely assumed that any being that has representations must also be conscious, which means that Kant would either have to ascribe consciousness to brutes or hold that they do not have representations after all (the latter alternative would be the more difficult to justify textually, and would also amount to accepting Descartes' hypothesis); what is more, Kant has written elsewhere, if not as often, that brutes *are* conscious.¹⁴

The second problem is that some scholars have attributed to Kant the belief that consciousness implies self-consciousness,¹⁵ finding this belief in no less central a text than the Transcendental Deduction. Now *this* is a problem because just as there is no question that Kant attributed representations to brutes, there is also no question that he

¹³ Patricia Kitcher, *Kant's Real Self*, in Allen Wood, editor, *Self and Nature in Kant's Philosophy*, Cornell U.P., 1984, p. 140.

¹⁴ See *Logik* (Ak 9:64–65) and Kant's letter to Herz (26 May 1789); both are discussed below.

¹⁵ E. g. Norman Kemp Smith believes that consciousness is "an awareness of meaning", which amounts to self-consciousness (*A Commentary to Kant's Critique of Pure Reason*, London: Macmillan, 1918, p. xli); accordingly, Kemp Smith holds that brutes are not conscious in Kant's system (*ibid.*, pp. xlvii–l). See also Kitcher, *Kant's Real Self*, pp. 116–17, 139–41; Jonathon Bennett, *Kant's Analytic*, Cambridge: Cambridge U.P., 1966, pp. 104 f.; Paul Guyer, *Kant on Apperception and a priori Synthesis*, in *American Philosophical Quarterly*, 17:205–12 (1980), pp. 209–11. – A passage commonly cited from the *Kr. d. r. V.* to support this view is the opening sentence of § 16: "The *I think* must be able to accompany all my representations; for otherwise something would be represented in me which could not at all be thought, which amounts to saying that the representations would be either impossible, or at least nothing to me" (B 131–32). That is, 'having a representation' is read as 'being conscious' and attaching the 'I think' to other representations is seen as equivalent to being self-conscious. Note that the Kemp Smith translation obscures the disjunctive character of the closing phrase, which is of some importance when considering the claim that representations are impossible apart from self-consciousness.

denied them self-consciousness;¹⁶ but if brutes have representations, and having representations implies being conscious, and being conscious implies being self-conscious, then either Kant was wrong to ascribe to them representations, or wrong to deny them self-consciousness. We can avoid this unpleasant choice only by rejecting one of the other premises, and, since it is obvious to many that having representations implies being conscious, we are left with rejecting the claim that consciousness implies self-consciousness. This last alternative may strike many readers as rather felicitous, since the claim itself appears as anything but obviously true. But unfortunately this implication may be needed for the Transcendental Deduction. Thus the problem.

In treating these two problems, I will argue for the following: (a) Kant clearly believes that representations are separable from consciousness (in some sense), and thus that a being might be capable of having representations and yet be unconscious, but that he leaves open the possibility that such a being could be even *incapable* of consciousness; still, it appears likely that Kant *did* consider brutes to be conscious in some more limited sense (which I will explore below). (b) Kant does not conflate consciousness and self-consciousness or hold that the former implies the latter, but his use of ‘Bewußtsein’ is inconsistent, sometimes meaning an “awareness” of representations (i. e. having *clear* representations), and sometimes the more involved notion of having an inner sense.

Given Kant’s pre-occupation with the brute psyche, and his belief that brutes are conscious (in some minimal sense) and are capable of having representations, and given Kant’s multiple rejections of brutes being self-conscious (even having an inner sense), it is almost certain that consciousness could not have implied self-consciousness for Kant, unless he forgot this important point while writing the Transcendental Deduction. (As to whether the Deduction nevertheless depends upon this implication is a question too large for the present paper, but a convincing argument that it does *not* has been offered recently by Ameriks.)¹⁷

(a) *Representations and consciousness*

Must one be conscious to have representations? Kant’s answer is not clearly affirmative.¹⁸ For in several places, Kant suggests that brutes, in whose ability to have

¹⁶ See *Anth.* (Ak 7:127; Gregor, p. 9); *MP Herder* (Ak 28:74); *Anweisung* (Stark, p. 3); *Menschenkunde* (Stark, pp. 9, 207); *MP Pölitz* (Ak 28:275–76); *Phil. En.* (Ak 29:44–45); *MP Mrongovius* (Ak 29:879).

¹⁷ Karl Ameriks, *Kant and Guyer on Apperception*, in *Archiv für Geschichte der Philosophie*, 65:174–86 (1983), esp. pp. 185–86, and his *Kant’s Transcendental Deduction as a Regressive Argument*, *Kant-Studien*, 69:273–87 (1978).

¹⁸ For the claim that Kant *does* answer this affirmatively, see Paton, *Kant’s Metaphysic of Experience*, London: George Allen and Unwin, 1936, i.461. Kitcher seems to imply that having representations is equivalent to being conscious, but she also says that “to be enjoying conscious experience . . . one must be making judgments” (*Kant’s Real Self*, p. 139). Kitcher later notes that there are two different senses of ‘consciousness’ in Kant’s writings – one for brutes and one for humans, the difference turning on the ability to form judgments – but she still insists that having a representation implies being self-conscious (*ibid.*, p. 143).

representations he clearly believes, are not conscious (at least in some sense). Consider a passage from the Herder notes (which stem from 1762–64): “Animals (by hypothesis) have a faculty for acting according to choice, but they cannot represent to themselves the grounds of motion: they are not conscious so as [to be able] to act according to a desire for this choice. This desire is a desire in a desire and is with humans the essence of freedom: otherwise I could not distinguish the soul from the other necessitating grounds in nature”.¹⁹

In his 1762 essay on the syllogism, Kant reminds the reader that our only knowledge of the nature of brutes comes from their overt actions and that, even though this behavior might at times *suggest* that brutes are conscious, Kant claims that (at least in one sense) they are not: “In observing [brutes] we are aware only of overt actions, the difference of which indicates different determinations of their desire. But it by no means follows that this behavior is preceded by an act of the faculty of knowledge within them, such that they are conscious of the agreement or disagreement of what is contained in one sensation with what is contained in another, and thus that they judge”.²⁰

In the 1775 lectures collected under the title *Philosophical Encyclopaedia*, Kant opens his discussion of empirical psychology with the topic of consciousness: “The first thing that I notice is consciousness. This is not a special thinking, but rather that under which I can bring all remaining representations, etc.; it is the condition and the form under which we are thinking beings, or intelligences. All living beings are either *substantia bruta repraesentativa* or *intelligentia*. The main, and nearly the only, difference between animals and humans is consciousness, but that is also so great that it can never be replaced with something else. Many animals behave and build so craftily that they come quite close to humans, but all are without consciousness”.²¹

In the lecture notes collected by Pölitz, and thought to stem from the Winter semester of 1778/9 or 1779/80, we find the following: “Accordingly we attribute to [animals] a faculty of sensation, imagination, etc., but all only sensible as lower faculties, and not connected with consciousness. We can explain all the phenomena of the animals from this outer sensibility and from the mechanical grounds of their bodies, without accepting consciousness or inner sense. The philosopher must not increase the principles of cognition without cause”.²²

In a sketch of a letter to Alexander, Prince of Beloselsky, dating from the summer of 1792, Kant elaborates on the relationship between representations and consciousness: “[First, in] the division of the faculty of representation, [there is the sphere of] mere apprehension of the representation: *apprehensio bruta* without consciousness (which is

¹⁹ *MP Herder* (Ak 28:99); see also *ibid.* (Ak 28:72, 83, 89, 92, 97, 105, 873, 878).

²⁰ *Syllogism* (Ak 2:60n; Abbott, p. 94n).

²¹ *Phil. En.* (Ak 29:44–45). This passage appears well-suited for answering Paton’s remark that he knows of no passages wherein Kant denies consciousness in brutes; see Paton, *Kant’s Metaphysics*, i. 334.

²² *MP Pölitz* (Ak 28:277); see also Ak 28:594 and *MP Volckmann* (Ak 28:449–50).

solely for animals), and the sphere of apperception, i. e. the concept; the last comprises the whole of the sphere of the understanding".²³ Here Kant claims that brutes apprehend but do not apperceive, a point made earlier by Leibniz.²⁴

Finally, we read in Dohna's lecture notes from the Winter semester of 1792/3 that "consciousness is wholly lacking in animals, their behavior occurs according to laws of the power of imagination, which nature has laid in them".²⁵

A second reason for thinking that Kant considered representations separable from consciousness is found in the many passages discussing obscure representations (*dunkele Vorstellungen*); these are, after all, representations of which we are not conscious. Following tradition, Kant distinguished between clear (*klar*), obscure (*dunkele*), and distinct (*deutliche*) representations. Clear representations are those of which we are conscious; distinct, those of whose features we are also conscious; obscure, those of which we are not at all conscious.²⁶

Guyer cites the section in the *Anthropology from a Pragmatic Point of View* where obscure representations are discussed, but he suggests that Kant's belief in such representations does not amount to a belief in representations wholly divorced from consciousness – for we *may later* become conscious of these unconscious representations.²⁷ That is of course possible, but Kant seems to have believed that there are many obscure representations of which we never have been and never will be conscious. Vladimir Satura, in his helpful discussion of Kant's beliefs about the unconscious, finds five different kinds of obscure representations discussed by Kant, among which are: (1) *die Gedächtnislatenz*: representations of which we were once conscious but are no longer, such as whatever we once noticed or thought about, e. g. books and articles read and since forgotten; and (2) *die unterschwelligigen Empfindungen*: representations of which we were never conscious because they were not intense or large enough (distant stars or microscopic images), or because there were too many to be noticed individually, e. g. the sounds of each instrument and vibrating string in a symphony.²⁸ The latter

²³ Letter to Beloselsky, Summer 1792 (Ak 11:330–33). See also *Refl. Anth.* (Ak 15:166). Kant owned a copy of Beloselsky's book, *Dianyologie ou tableau philosophique de l'entendement*, Dresden: 1790, upon which Kant was commenting in his letter; see Warda, *Immanuel Kants Bücher*, Berlin: Martin Breslauer, 1922, p. 44. On Kant's relation to Beloselsky and Russian culture and science of the time, see Arsenij Gulyga, *Immanuel Kant*, translated into German by Sigrun Bielfeldt, Frankfurt am Main: Insel Verlag, 1981, pp. 268, 323–29.

²⁴ See Leibniz's *New Essays* (Remnant and Bennett transl., Cambridge U. P., 1982, pp. 133–34); *Discourse on Metaphysics*, §34–35; *The Principles of Nature and of Grace*, §4–5 (in Leibniz, *Philosophical Papers and Letters*, translated and edited by L. E. Loemker, Chicago: University of Chicago Press, 1956, pp. 1036–37); and *Monadology*, §28–30.

²⁵ *MP Dohna* (Ak 28:689–90).

²⁶ *MP Pölitz* (Ak 28:227).

²⁷ Guyer, *Kant on Apperception*, pp. 209–10n. Kant notes in this passage from the *Anth.* (Ak 7:135–37; Gregor, pp. 16–18) that brutes also have obscure representations.

²⁸ Vladimir Satura, *Kants Erkenntnispsychologie*, vol. 101 of the *Kantstudien-Ergänzungshefte*, Bonn: Bouvier Verlag Herbert Grundmann, 1971, pp. 55–64. Satura offers a host of passages on obscure representations from *MP Pölitz*, *Menschenkunde*, *Refl. Anth.*, *MP Dohna*, *Logik*, and

is perhaps the most remarkable species of obscure representation for these are wholly estranged from any consciousness: "When we cast our eyes through a telescope at the furthest heavenly bodies, that telescope is doing nothing more than awakening in us the consciousness of countless heavenly bodies which could not be seen with the naked eye, but which already lay obscure in our soul. If only man could be conscious of everything that he perceives of bodies through the microscope, he would have a vast knowledge of bodies, such as he actually now has, except that he is not conscious of it. . . . Thus there lies in the field of obscure representations a treasure which constitutes the deep abyss of human cognition which we cannot attain".²⁹

Of course, Kant might still have believed that representations, while clearly separable from *consciousness*, are still inseparable from *conscious beings*, that is, that perhaps only conscious beings can have representations, whether obscure or clear. But he never says this explicitly despite ample opportunity, and at least traditional arguments such as those offered by Locke against separating representations from consciousness are ineffective against taking the further step of attributing representations to unconscious beings, once that first step of accepting the doctrine of obscure representations is taken.

A third reason for thinking that Kant did not accept the claim that having a representations implies being conscious is that Kant suggests the opposite in his discussion of the different levels of cognition, as found in the *Logik*:

The *first* level of cognition is: to represent something to oneself.

The *second*: to represent something to oneself with consciousness, or perception (*percipere*);

The *third*: to know (*noscere*) something, or to represent to oneself something in comparison with other things, according to the *similarity* as well as the *difference*;

The *fourth*: to know something *with consciousness*, i. e. to *cognize* (*cognoscere*). Animals also *know* objects, but they do not *cognize* them.

The *fifth*: to *understand* something (*intelligere*), i. e. to *cognize* or *conceive through the understanding by means of concepts*. This is quite different from *conception*. Much can be conceived, although it cannot be conceptualized, e. g. a perpetual motion machine, whose impossibility is shown in mechanics.³⁰

Anth.; to which I might also add the following: *MP Mrongovius* (Ak 29:879–80), *MP Arnoldt* (Ak 29:1033), *MP Herder* (Ak 28:92), *Deutlichkeit* (Ak 2:290; Walford, p. 22).

²⁹ *MP Pölitz* (Ak 28:227, 228). See the parallel account in *Anth.* (Ak 7:135–37; Gregor, p. 16). It perhaps goes without saying that Kant's views here are incompatible with current views on the physiology of sensation.

³⁰ *Logik*, "Introduction", sect. viii (Ak 9:64–65). These are only the first five of the seven levels described. See also Kant's brief taxonomy of the genus of representation in *Kr. d. r. V.* B 376–77, and in *MP Herder* (Ak 28:74) we read that "there can be beings with representations but without feelings". I should note that Kant elsewhere denies brutes the ability to discern that which is similar between two objects: see his helpful discussion of this in *Syllogism*, as partly quoted earlier in this section. In short, Kant denies brutes the ability to form judgments, for which see also: *MP Herder* (Ak 28:66–67, 78–79, 88, 857), *Deutlichkeit* (Ak 2:285; Walford, p. 16), *Colleg. Anth. 70s* (Ak 15:713), *Refl. Anth.* (Ak 15:161–62). For a general discussion of this, see Chapter Six of the author's dissertation *Reason and Animals: Descartes, Kant, and Mead on the Place of Humans in Nature*, University of Notre Dame, 1987.

At the first level of cognition we seem to have representations without consciousness, since consciousness does not make its appearance until the second level. This would seem to indicate that representations and consciousness were separable (although, once again, one might argue that Kant would not allow the (further?) step of separating the ability to have representations and the ability to be conscious).

Despite this wealth of evidence, it is still not clear what Kant's views were on the matter. For, as the more observant reader will have noticed, Kant tells us in the very passage just quoted that brutes *are* conscious, indeed, that they even attain to the third level of cognition (which would involve, presumably, the capacities of levels one and two as well). Another passage that suggests Kant attributed consciousness to brutes is his letter to Herz (26 May 1789), wherein brutes are denied self-consciousness but given consciousness.³¹

(b) *Consciousness and self-consciousness*

More important than these few passages where Kant directly (if ambiguously) attributes consciousness to brutes would be to show in those passages where he *denies* them consciousness that he is actually denying them something else, such as the possession of an inner sense. This can be done, although a thorough untangling of Kant's different uses of 'Bewußtsein' and its related terms would require an essay in itself, so I will here only sketch what I take to be a plausible account.

The principle work from which Kant lectured in his courses in metaphysics was Baumgarten's *Metaphysica*, a Latin text composed of sections on ontology, cosmology, psychology (empirical and rational), and natural theology, each of which Kant discusses in turn.³² Herder attended Kant's lectures in the years 1762–4, including lectures on metaphysics, and his notes of these include much of interest regarding the inner lives of brutes and the nature of consciousness, including the following: "Animal clear representations and human consciousness are the two main faculties of our understanding, which unite us with the animals and raise us above them. Give us representations of the senses and we would never be able to consider consciousness as possible, not merely because this behavior itself does not happen without consciousness, but rather because both powers are essentially different".³³

Clear representations are those of which we are conscious, and yet in the above this ability of having clear representations is said to be "essentially different" from human consciousness. It appears that Kant's 'Bewußtsein' is here referring more narrowly, if not to something else entirely. If by 'consciousness' is meant responsiveness to

³¹ *Kant's Philosophical Correspondence 1759–1799*, edited and translated by A. Zweig, Chicago: Chicago U. P., 1967, p. 154. Paton cites both of these passages as supporting his view that Kant believed brutes to be conscious. Most of what he cites, however, only refer to brutes having representations, rather than being explicit statements of their consciousness. For these passages see § 3 (above) and Paton, *Kant's Metaphysics*, i. 332–35.

³² Alexander Gottlieb Baumgarten, 4th ed., Halle: Karl Hermann, 1757.

³³ *MP Herder* (Ak 28:945).

representations, then Kant certainly allows that brutes are conscious. What he disallows is the brute's ability to represent to itself some representation that it has,³⁴ or to bring several or all representations together,³⁵ or to compare two separate representations.³⁶ The latter two instances clearly involve an act of judging, which ability Kant elsewhere denies the brutes. All of them involve the ability to have "a representation that another representation is in me", which is the description given to consciousness in the *Logik*.³⁷ This use of 'consciousness' appears similar to that of 'inner sense'.

Throughout his career, Kant distinguished *inner* and *outer sense*. Rather simply, outer sense is the ability to have representations of "outer things", while inner sense is the ability to have representations of "inner things" (namely, other representations).³⁸ Elsewhere in Herder's notes we find the claim that "consciousness – inner sense – is thus the distinguishing character of the rational being",³⁹ and so it appears that Kant at least occasionally means by 'Bewußtsein' this ability to have representations of other representations. Kant offers us such a description of consciousness several times, as in the *Logik* and the *MP Pölitz*: "Consciousness is a knowledge of that which I receive. It is a representation of my representations, it is a self-perception".⁴⁰

This is also how inner sense is described in the 1762 essay on the syllogism ("the faculty of inner sense, i. e. to make its own representations objects of thought").⁴¹ And if we look back at some of the passages wherein Kant denies brutes consciousness, what

³⁴ See Kant's 1786 or 1788 Latin discourse, *On Philosophers' Medicine of the Body* (Ak 15:944; transl. by Mary Gregor in L. W. Beck, ed., *Kant's Latin Writings*, P. Lang, 1986, p. 231): "For there is in cattle, as well as in man, that remarkable faculty we call imagination, the principle of perception and motion, by which things that are absent can really exist in the soul as though they were present, as can things that never have been and perhaps never can be. But in cattle, this force is not directed by any choice or deliberate intention of the animal, but is put into play by stimuli and impulsions implanted by nature itself, apart from any influence of the will." See also *MP Herder* (Ak 28:99): "The animals (by hypothesis) have a faculty to act according to choice, but they cannot represent to themselves the grounds of motion: they are not conscious so as to [be able to] act according to a desire for this choice."

³⁵ *Phil. En.* (Ak 29:44–45). See the passage quoted earlier.

³⁶ *Syllogism* (Ak 2:59–60; Abbott, p. 94). See also Kant's *Prize Essay* (Ak 2:285; Walford transl., p. 16).

³⁷ *Logik* (Ak 9:33; Hartman and Schwarz, p. 37).

³⁸ *MP Herder* (Ak 28:78), *M. A. d. N.* (Ak 4:542; Ellington, p. 103), *Kr. d. r. V.* (B 37, 50–51, 152–54, 220, 427–30; A 367–8, 386–7). Saying exactly what inner sense is supposed to be for Kant is not easy; Ameriks delineates some five varieties of inner sense (*Kant's Theory of Mind*, pp. 239–55). I have chosen to speak of inner sense in terms of abilities, but one could just as well define it in terms of its content. – I should add that on the present reading of the text, Kant is not contrasting outer and inner sense when he contrasts objective and subjective consciousness in the *MP Pölitz* (Ak 28:226–27). Rather, both of these seem to be forms of empirical consciousness.

³⁹ *MP Herder* (Ak 28:117).

⁴⁰ *MP Pölitz* (Ak 28:227).

⁴¹ *Syllogism* (Ak 2:60; Abbott, p. 94). See also *MP Herder* (Ak 28:79): "The brute has different representations according to different emotions: different actions; but not explained through differentiation – it does not have the inner sense for representing its *status repräsentationis*."

we find him saying is that brutes lack this ability to have representations of their representations: brutes are not able “to act according to a desire for this choice” or that this desire is “a desire in a desire”;⁴² brutes are not “conscious of the agreement or disagreement of what is contained in one sensation with what is contained in another”.⁴³ All of this requires a certain reflective ability such as we find in inner sense, and which seems to underlie the ability to judge, which itself is often noted by Kant as the critical difference between humans and brutes.⁴⁴ In one passage, Kant suggests that judging does assume this ability: “. . . to make my own representation on object of representation – and thus distinct. Through this are judgments possible and through that distinct concepts and consequently of the understanding”.⁴⁵

On the reading I have been advancing, it is yet an additional ability to be self-conscious in the sense of having a representation of the “I” and the ability to attach this representation to all the rest.⁴⁶ Of course, brutes lack this ability as well, and so are incapable, for instance, of experiencing happiness and unhappiness – as we learn in the following passage: “To be able to say ‘I’ [is] the special faculty of being an object to oneself (small children do not [have this faculty]). Personality. There is not just pain, but distress over the pain etc. Happiness and unhappiness (not just pleasure, but joy). Merit and guilt. Understanding and reason. In this faculty, to relate one’s condition to oneself”.⁴⁷ While brutes may experience all or most of what humans do of the external world, they experience nothing of that inner world which looms so vast and deep in our daily lives.

Let us now return to Kant’s relation to Descartes. Kant believed brutes were capable of pain and pleasure, but incapable of happiness or despair, and this for the reason that the latter (but not the former) require an ability to make judgments, which brutes lack. Interestingly, Descartes’ three-fold distinction between grades of sensory-information helpfully lays out the difference between his and Kant’s views of brute experience.⁴⁸ While Descartes attributed to brutes only the first and mechanical grade of sensation,

⁴² *MP Herder* (Ak 28:99).

⁴³ *Syllogism* (Ak 2:60n; Abbott, p. 94n).

⁴⁴ Ameriks holds that Kant is simply denying brutes this ability to judge when he denies them consciousness; see *Kant’s Theory of Mind*, p. 242n 10.

⁴⁵ *MP Herder* (Ak 28:79).

⁴⁶ See, for example, *MP Pölitz* (Ak 28:584): “A kind of representation can accompany all our representations, this is the representation of ourself. The representation of ourself is called consciousness, *apperceptio*.”

⁴⁷ *Colleg. Anth. 70s* (Ak 15:661). For other discussions of the lack of happiness in brutes, see *MP Herder* (Ak 28:117): “Animals are not capable of happiness, for this depends upon consciousness . . .”; and *Colleg. Anth. 80s* (Ak 15:859): “Happiness, of which the animals know nothing, arises not from the tendency towards sensuousness, but from the principles of reason.” See also Leibniz’ remark in his *Theodicee*, §250: “perception is not sufficient to cause misery if it is not accompanied by reflection. It is the same with happiness: without reflection, there is none” (Huggard transl., pp. 280–81).

⁴⁸ “Reply to the Sixth Set of Objections” in Haldane and Ross, *The Philosophical Works of Descartes*, ii. 251.

reserving the latter two to human beings, Kant would have attributed the first two grades to brutes, denying them only the third on grounds that they cannot judge. For having a representation is more than the merely mechanical stimulus and response such as a thermostat might respond to a change in temperature.⁴⁹ Rather, representations are mental items or events for Kant, and as such set him at odds with Descartes' animal-machine hypothesis.

V. *Animality as mechanical*

Unlike Descartes, Kant allowed representation, feelings, and desires to the brutes, as well as a minimal sort of consciousness.⁵⁰ Nevertheless, Kant often emphasized the *mechanistic* nature of animality, again suggesting adherence to Descartes' animal-machine hypothesis. In *The Metaphysical Elements of Justice* he makes plain his belief that animals operate solely within a mechanical world: we must trust the moral law that we sense within, Kant writes, for "to regard the moral law within us as deceptive would bring about the horror-inspiring wish to dispense with reason altogether, and to consider it and its principles as thrown into the same mechanism of nature as the rest of the animals".⁵¹

In his *Religion within the Limits of Reason Alone*, the animality of humans is characterized as "physical and purely mechanical self-love",⁵² and this animal existence is elsewhere described as being characterized by a "mechanical organization".⁵³ Prior to the rise of a nature which was specifically human, according to the 1796 essay on a perpetual peace in philosophy, nature worked in humans as it does now in the brutes, namely, in a wholly mechanical fashion: "Here is nature represented in humans, just as it is active in animals, a nature prior to humanity and therefore in its generality, acting solely in order to develop powers which man can later employ according to laws of freedom; but this activity and its stimulation is not practical [i. e. free], but rather only mechanical".⁵⁴ In a peculiar closing statement to his essay on enlightenment, Kant is

⁴⁹ Cf. *MP Herder* (Ak 28:78): "Mirrors do not represent themselves".

⁵⁰ That he attributes *consciousness* to them is seen in 4a, above. That he views this consciousness as of a different or lesser kind than that ascribed to humans is seen in 4b, above.

⁵¹ "Metaphysische Anfangsgründe der Rechtslehre", part one of *Die Metaphysik der Sitten* (Ak 6:355; translated by John Ladd as *The Metaphysical Elements of Justice*, Indianapolis: Bobbs-Merrill, 1965, p. 128).

⁵² *Religion innerhalb der Grenzen der bloßen Vernunft* (Ak 6:26, 35; translated by T. M. Green and H. H. Hudson as *Religion within the Limits of Reason Alone*, New York: Harper, 1960, pp. 21–22, 30).

⁵³ See the 3rd Thesis of *Geschichte* (Ak 8:19–20; Humphrey, p. 31).

⁵⁴ *Verkündigung des nahen Abschlusses eines Traktat zum ewigen Frieden in der Philosophie* (Ak 8:413). See also *Frieden* (Ak 8:378; Humphrey, p. 133): "in [this theory] man is thrown into the same class as other living machines..."

perhaps alluding to this mechanical past of humans: “Once nature has removed the hard shell from this seed for which she has most fondly cared, viz. the inclination to and vocation for *free thinking*, the germ gradually reacts upon a people’s mentality (whereby they become increasingly able to *act freely*), and it finally even influences the principles of *government*, which finds that it can profit by treating men, who are now *more than machines*, in accord with their dignity”.⁵⁵

Is all of this talk of animal mechanism purely metaphorical? Or is there some non-Cartesian sense where animals *are* mechanical? In the following three sections I explore three related topics in Kant’s system that explain his view of animality as “mechanical”, and also provide additional motivations for Kant’s rejection of Descartes’ hypothesis.

(1) First, although he agreed with Descartes that matter was inert, Kant also believed that, given this inertness, life could not arise out of mere matter. Consequently, Kant often spoke of an “immaterial principle” in brutes, and even of them possessing souls which might survive into an afterworld after the decay of their bodies.

(2) Nevertheless, methodological considerations disallowed attributing to brutes any non-sensible cause for their actions.⁵⁶ Consequently, *some* form of determinism for brutes was in order, although Descartes’ was not acceptable given the above problem. There was available to Kant, however, a Leibnizian version of determinism which fell on the ideal rather than the material plane. With such a choice in view, Kant was able to reject Descartes’ determinism for Leibniz’s more attractive form.

(3) Finally, and for related reasons, Kant did not believe, as Descartes did, that mechanical explanations were possible in much of the life sciences, and certainly not in explaining reproduction and growth, regeneration, and even common patterns of behavior. I will now look more closely at each of these three points.

VI. *Inert matter, life, and thought*

The nature of matter, according to Kant, disallows the material determination of brutes. Like Descartes, Kant took matter to be inert in the sense that it lacks any self-

⁵⁵ *Aufklärung* (Ak 8:41–42; Humphrey, pp. 45–46). I see several possible readings of this passage. First, if we view human animality as mechanical (as Kant does) then this suggestion that humans were once machines is just a reference to a prior animality. Or, this may simply refer to an earlier and (for Kant) unacceptable mode of governing: “the mechanical management of men under the regiment of others is everywhere the surest means of maintaining lawful order” (*Antb.*, Ak 7:210; Gregor, p. 80). Or, the statement might be meant ironically, condemning the government’s practice of treating humans *as if they were* machines. Compare with *Frieden* (Ak 8:378; Humphrey, p. 133).

⁵⁶ Namely, brute behavior was explicable without recourse to non-sensible causes, and therefore none should be attributed: see *MP Herder* (Ak 28:116–17), *MP Mrongovius* (Ak 29:906–7), *MP Pölitz* (Ak 28:277), *Kr. d. U.* (AK 5:377–78; Bernard, p. 224), *Syllogism* (Ak 2:60n; Abbott, p. 94n), and *Kr. d. r. V.* B 574.

organizing powers, and thus is lifeless;⁵⁷ but unlike Descartes, and like La Mettrie, he did not believe that animal behavior was reducible to statements of motion and extension.⁵⁸ Consequently, Kant appealed to an immaterial principle which vivified each living being, plants as well as animals.

Kant's concept of matter played a large role in several of his views about humans and brutes. For example, he rejected any attempt at grounding human mentality in matter, or providing a material explanation of it, because the unity of our consciousness ("the unity of apperception") could not be based on something *infinitely divisible*, which matter is.⁵⁹ Apart from being infinitely divisible, matter is also *inert*, which precluded for Kant the derivation of anything living from mere matter. Life cannot emerge from what is lifeless. Both of these claims appear to be rooted in the lack of any *unity* in matter; unity is manifested by form, and matter is formless.⁶⁰ The reasoning behind these two claims that matter can support neither thought nor life can be summarized as follows:

(1) *Matter cannot think*. A concept is a unity of representations, judgments unify representations or concepts, and thus thought itself demands a high-level of unity, such as is found in the unity of apperception. It follows that matter, wholly lacking in any principle of unity, cannot think.

(2) *Matter is inert*. Living processes in general involve a high degree of unity, being directed towards some *form* which guides the growth and reproduction of the organism. It again follows that matter, being devoid of any formal unity, cannot support or give rise to living things.

⁵⁷ See *Kr. d. U.* (Ak 5:374, 394; Bernard, pp.221, 242), *Kr. d. r. V.* B 876, *MP Herder* (Ak 28:115–16), *Träume* (Ak 2:329; Goerwitz, p. 55), and *M. A. d. N.* (Ak 4:544; Ellington, p. 106), *MP L₂* (Ak 28:594), and see Ameriks, *Kant's Theory of Mind*, pp. 27–8. Kant viewed matter as essentially *dynamic* (see ch. 2 of *M. A. d. N.*) but here we are speaking of inertia in the sense of being lifeless.

⁵⁸ LaMettrie held that humans were machines as well as brutes but, to make this position at all plausible, he needed to find in matter (in addition to extension and motion) the faculty of feeling – something that Kant was unable to accept, given his firm commitment to matter's inertness. See LaMettrie, *Natural History of the Soul*, as partially reprinted in his *Man a Machine*, translated by Gertrude Bussey, Open Court Press, 1912, pp. 159–61.

⁵⁹ There are several sources of this view in Kant. (1) The best known is in the B-edition "Paralogism" section of the *Kr. d. r. V.* B 419–20. See also (2) the letter from Carl Arnold Wilmans which was received by Kant in September of 1797 and printed as an appendix to Section One of *Der Streit der Facultäten, in drei Abschnitten*, translated by Mary Gregor as *The Conflict of the Faculties*, New York: Abaris Books, 1979; (3) Kant's letter to Wilmans written sometime after 4 May 1799; (4) the short essay by Kant which was attached to Sömmering's work on the brain (*Sömmering*, W, xi. 259); (5) *Welches sind die wirklichen Fortschritte, die die Metaphysik seit Leibnitzens und Wolffs Zeiten in Deutschland gemacht hat?* (Ak 20:308), translated by Ted Humphrey as *What Real Progress has Metaphysics Made in Germany since the Time of Leibniz and Wolff*, New York: Abaris Books, 1983, p. 151. As for the infinite divisibility of matter, see Chapter Two, prop. 4, of the *M. A. d. N.*: "Matter is divisible to infinity, and indeed into parts each of which is again matter" (Ak 4:503; Ellington, p. 49).

⁶⁰ See *Kr. d. U.*, § 61: "Nature, considered as a mere mechanism, can produce its forms in a thousand different ways without stumbling upon unity . . ." (Ak 5:360; Bernard, p. 206).

Some non-material principle seems to be required for each of these properties. Matter can be the principle neither of the *self* (*qua* conscious being) nor of *life*; it is this latter claim which I will now explore.⁶¹

The Herder lecture notes provide an early example of Kant's view of matter: "As soon as we see matter moving itself, we judge that it is an animal, no matter how shapeless it may be . . . [revealing by its motion] an inner principle of movement. This principle must be immaterial because matter in itself is dead and must be moved by some different being".⁶² Hylozoism is the doctrine that matter itself is alive, or possesses as part of its nature a life-principle. In rejecting this doctrine in the *Critique of Judgment*, Kant argued that "the possibility of living matter cannot even be thought: its concept involves a contradiction, because lifelessness, *inertia*, constitutes the essential character of matter".⁶³ The fullest explanation as to why Kant believed matter to be inert can be found in the Third Chapter of the *Metaphysical Foundations of Natural Science* (prop. 3), where Kant claims that "every change of matter has an external cause".⁶⁴ This is the law of inertia, the second of the three laws of "universal mechanics". Here matter is construed in its entirety as an object of the outer (public or intersubjective) world so that any and all of its changes must be brought about by principles which, in order to be intersubjective, cannot be "inner" or in any manner hidden from the public view.

If changes in matter are wholly brought about through outer determinations, what would an *inner* determination or principle be? Since they are inner, we could only know of them privately through introspection, and of these Kant wrote that "we know of no other internal principle of a substance to change its state but *desire* and no other internal activity whatever but *thought*, along with what depends upon such desire, namely, *feeling* of pleasure or displeasure, and *appetite* or will".⁶⁵ These are the inner determinations of living beings, 'life' being defined as "the capacity of a substance to determine itself to act [viz. to think or feel or will] from an internal principle [viz. desire]".⁶⁶

⁶¹ As to the former claim see Ameriks, *Kant's Theory of Mind*, p. 25–83.

⁶² *MP Herder* (Ak 28:115). See also *Kr. d. r. V.* B 420, 876: "The mere concept of matter (impenetrable, lifeless extension) . . ."; *Anth.* (Ak 7:177n; Gregor, p. 53); *MP Pölitz* (Ak 28:272); *MP Dohna* (Ak 28:687).

⁶³ *Kr. d. U.* (Ak 5:394; Bernard, p. 242).

⁶⁴ *M. A. d. N.* (Ak 4:543; Ellington, p. 104).

⁶⁵ *M. A. d. N.* (Ak 4:544; Ellington, p. 105). See the parallel passage in *Träume* (Ak 2:328n; Goerwitz, p. 54n).

⁶⁶ *M. A. d. N.* (Ak 4:544; Ellington, p. 105). See also *Träume* (Ak 2:327n; Goerwitz, pp. 52–53n): "whatever in the world comprises a principle of life appears to be an immaterial nature. For all life rests on the inner faculty to determine oneself according to choice"; *Tugendlehre* (Ak 6:211; Gregor, p. 7): "The power of a being to act in accordance with its representations is called 'life'". In the *Opus postumum* (Ak 21:566) we read: "Life, in the strict sense of the word, is the capacity of spontaneity of a physical being to respond [wirken] in accordance with certain of its representations". A gloss to 'physical being' in the above quote reads: "Matter responds, animals (e. g. spiders) act, humans behave".

But still one might think that life could emerge from lifeless matter; and indeed, Kant suggests this possibility in a famous passage from §80 of the *Critique of Judgment*: “The agreement of so many genera of animals in a certain common schema . . . allows a ray of hope . . . that here something may be accomplished by the aid of the principle of the mechanism of nature (without which there can be no natural science in general). This analogy of forms . . . strengthens our suspicions of an actual relationship between them in their production from a common parent . . . , i. e. from man, down to the polyp, and again from this down to mosses and lichens, and finally to the lowest stage of nature noticeable by us, viz. to crude matter. And so the whole technique of nature . . . seems to be derived from matter and its powers according to mechanical laws (like those by which it works in the formation of crystals).”⁶⁷ Other passages from the *Critique of Judgment* indicate, however, that Kant did not believe that life could be thought to emerge from mere matter; only *organized matter*, i. e. matter with certain dispositions to combine and act in certain ways, could give rise to living organisms: “In all physical explanations of these formations, [Blumenbach] starts from organized matter. That crude [i. e. unorganized] matter should have originally formed itself according to mechanical laws, that life should have sprung from the nature of what is lifeless, that matter should have been able to dispose itself into the form of a self-maintaining purposiveness – this he rightly declares to be contradictory to reason.”⁶⁸

Finally, if life cannot emerge from mere matter (requiring instead an immaterial principle), then the existence of immaterial beings gains plausibility. Twenty years before the publication of the *Metaphysical Foundations of Natural Science*, Kant had similarly argued for the inertness of matter, tying this to the belief in immaterial beings. He wrote in *Dreams of a Spirit Seer* (1766) that “the characteristics of *dead* matter which fills the universe are stability and inertia; it further possesses solidity, expansion, and form . . . But let us direct our attention to the kind of beings which contain the cause of *life* in the universe – those which therefore neither add to the mass and extent of lifeless matter . . . , but which by inner activity move themselves and dead matter as well – and we shall find ourselves convinced . . . that immaterial beings exist.”⁶⁹

While Kant and Descartes agreed that there were immaterial beings or souls, Kant attributed souls even to the brutes. Since life could not be materially grounded, Kant found himself returning to a view similar to Aristotle’s in that an immaterial principle was necessary for any living being, and not just humans. What is more, Kant suggested that these animal souls might be immortal, passing into the afterworld upon the dissolution of the creature’s body where they might further serve the souls of departed

⁶⁷ *Kr. d. U.* (Ak 5:418–19; Bernard, pp.267–68). On the formation of crystals, see also §58 (Ak 5:348–49; Bernard, pp.194–95).

⁶⁸ *Kr. d. U.* (Ak 5:424; Bernard, p.274).

⁶⁹ *Träume* (Ak 2:329; Goerwitz, pp.55–56). Later in the same chapter, Kant described the two positions between which he wished to steer: “Hylozoism makes everything alive; materialism makes everything dead”.

humans.⁷⁰ Although this was mere speculation on Kant's part, it is a view suggested by the irreducibility of living organisms to material terms. As a consequence, while it initially appeared that Kant should have accepted the Cartesian hypothesis of animal-machines, it now appears that Kant was in total opposition to Descartes on the nature and destiny of the brutes.⁷¹

VII. *Material vs. ideal determinism*

Kant nevertheless did not ascribe non-determination or free behavior to brutes for that would result in their being moral agents, which was probably unthinkable for Kant. Fortunately, there was an alternative to Cartesian mechanism, namely, Leibniz's "spiritual determinism": "All necessary events in time according to natural law can be called the 'mechanism of nature' . . . whether the subject in which this evolution occurs be called *automaton materiale* when the machine is impelled by matter, or, with Leibniz, *automaton spirituale* when it is impelled by ideas. And if the freedom of our will were nothing else than the latter, i. e. psychological and comparative and not at the same time also transcendental or absolute, it would in essence be no better than the freedom of a turnspit which when once wound up also carries out its motions of itself".⁷² – "When the dog is served-up meat, motions set in action . . . With animals . . .

⁷⁰ See *MP Herder* (Ak 28:116–17), *MP Mrongovius* (Ak 29:906–7), *MP Dohna* (Ak 28:690).

⁷¹ Kant's doctrine of inert matter motivates a functionalist reading of these "immaterial principles", for if all living organisms have such a principle, but none have noumenal agency save for humans (if they even do), then we are left with interpreting this immateriality as part of the phenomenal world – and the likeliest interpretation is that it is merely a functional feature of that world (on this see Timothy Lenoir, *Kant, Blumenbach, and Vital Materialism in German Biology*, in *Isis*, 71:77–108, 1980, and his discussion of vital materialism and functionalism in *The Strategy of Life*, Dordrecht: Reidel, 1982). – Such an account seems required for the brutes, given their determined behavior, and is also a plausible account of the place of human mentality in Kant's system, given his belief that human reason was understandable *apart* from any noumenal agency as the property of a merely phenomenal being. See, for example, his references to the eventual emergence of reason within the human species out of a prior instinctive animality: the *Review of Moscati* (Ak 2:422–25), *Anth.* (Ak 7:327n; Gregor, p.188), *Colleg. Anth. 70s* (Ak 15:645–46), *Refl. Anth.* (Ak 15:555, 604, 616, 645), *Kr. d. p. V.* (Ak 5:61; Beck, p.63), *Tugendlehre* (Ak 6:433–34, 438n; Gregor, pp.99, 104n), *Geschichte* (Ak 8:25; Humphrey, p.35), and *Mutmaßlicher Anfang der Menschengeschichte*, 1786 (Ak 8:25; translated by Ted Humphrey as *Speculative Beginnings of Human History*, in *Perpetual Peace and other Essays*, p.53). There is, of course, a problem with reason *not* belonging to the phenomenal world, since "thinking involves a reflection which can itself only happen in time" (*Das Ende aller Dinge*, 1794, Ak 8:333, translated by Ted Humphrey as *The End of All Things*, in *Perpetual Peace and other Essays*, p.98).

⁷² *Kr. d. p. V.* (Ak 5:97; Beck, pp.100–1). See also *MP Herder* (Ak 28:96, 103) and the discussion of clocks and turnspits in *MP Pölitz* (Ak 28:267). Leibniz speaks of monads as spiritual automata in the *Monadology*, §18, and he contrasts humans and brutes in terms of this machine metaphor at: *Monadology*, §63–4, 83–4; "Letter to Arnauld, 9 October 1687" (*Philosophical Papers and Letters*, ed. Loemker, p.534); *Principles of Nature and of Grace*, §3–4 (pp.1034–35).

this is an external necessity as in machines: thus are they called spiritual automata. But with humans, the chain of determining causes is cut in every case . . .”⁷³

These passages suggest a reconciliation of Kant’s attributing both mentality and determinism to the workings of brutes: Kant views brutes as turnspits but, with Leibniz, as *spiritual* turnspits, not as the material machines of Descartes’ hypothesis. Kant unequivocally denied brutes any chance of transcendental freedom, making them *some* sort of turnspit – and his rejection of Descartes’ materialism leaves them with the only alternative of being turnspits of the spiritual variety.

Kant’s position is further developed in the lecture notes on metaphysics written down by Dohna. It was probably January of 1793 that Kant delivered the lecture on rational psychology wherein he discussed the topic of animal souls and Descartes’ rejection of such: “Can life be a property of matter? Animals are wholly lacking in consciousness; their conduct occurs according to laws of imagination, which nature has laid within them – by analogy. That principle, which guides the animal as *analogon rationis*, is called instinct, the faculty to carry-out actions without consciousness, for which humans require consciousness . . . Descartes and Malebranche wanted to deny animals of souls, the latter from theological grounds (why should they suffer?, they have committed no offence, &c.); but this is a weak argument. It is clear that we do not need to attribute understanding to animals for they practice without instruction, nature having laid within them the drive. The subject of representation in each living being is something different from matter, and animals have souls . . .”⁷⁴

The second paragraph is especially revealing. Note that immediately after rejecting Descartes’ and Malebranche’s position, Kant claims that it is not necessary to attribute understanding to the brutes on his own view. This is a legitimate worry, for it might appear that attributing souls to brutes would involve attributing cognitive faculties like the understanding as well; Kant wanted to make clear that this was not the case, and offers some reasons why a besouled creature need not have an understanding. He then makes the claim that the subject of representations “in each living being is something different from matter”.

This is apparently equivalent to his rejecting certain physiological projects such as those involving Descartes’ doctrine of “material ideas”;⁷⁵ for Kant believed that our sciences are inadequate to the task of giving such physiological explanations. These representations determine (i. e. necessitate) the behavior of the brutes, but they are not to be considered as material; the determinism that Kant is here affirming must therefore be of the Leibnizian variety. Brutes are spiritual, not material, turnspits.

⁷³ *Reflexion* 3855 (Ak 17:313).

⁷⁴ *MP Dohna* (Ak 28:690).

⁷⁵ On Kant’s discussion of material ideas, see: *Träume* (Ak 2:326n, 345; Goerwitz, pp. 51n), *Anth.* (Ak 7:176; Gregor, pp. 51–52), *Sömmering* (Weischedel, xi. 256). On the vanity of physiological explanations of behavior, see esp. the “Preface” to the *Anth.* (Ak 7:119; Gregor, p. 3) and the *Refl. Anth.* (Ak 15:801).

VIII. *Mechanical and teleological explanation*

A final reconciliation of Kant's determinism with his rejection of Descartes' animal-machine hypothesis is found in his views on explanation in the life sciences. Much can and has been said on this score;⁷⁶ I wish merely to note what should by now be obvious, given the above. While Descartes believed that all natural events were amenable to mechanical explanations, Kant felt that teleological explanations were necessary for human inquirers, given the complexity of the mechanical nexus in the phenomenal world.

Both Descartes and Kant accepted these two separate modes of explanation;⁷⁷ to explain an event for either of them was to describe the conditions sufficient for bringing about the event, and this was expressed in terms of causality.⁷⁸ But they differed in the status and scope they ascribed to each kind of causality. Kant's view of the status of non-mechanical causality was rather more guarded than Descartes': the most that Kant wished to claim was that "causality through freedom is at least *not incompatible with nature*".⁷⁹ But the scope of explanation that Kant ascribed to this "causality through freedom" was considerably wider than Descartes had allowed: while Descartes appealed to non-mechanical causation to explain only a fraction of human actions (explaining the rest of nature mechanically), Kant's appeal ranged across the entirety of organic nature.

Like Descartes, Kant favored mechanical explanation, but he did not think that our limited intellects were capable of providing this in the organic realm: "The *privilege of aiming at a merely mechanical method or explanation of all natural products is in itself quite unlimited, but the faculty of attaining thereto is by the constitution of our understanding, so far as it has to do with things as natural purposes, not only very much limited but also clearly bounded. [...]* It is therefore rational, even meritorious, to

⁷⁶ See Clark Zumbach, *The Transcendent Science: Kant's Conception of Biological Methodology*, The Hague: Nijhoff, 1984; Robert Butts, *Kant and the Double Government Methodology*, Boston: D. Reidel, 1984, esp. ch. 9.

⁷⁷ But for Kant these modes were not of equal status, for mechanical causality enjoys a grounding in the phenomenal world (as argued in the "Second Analogy" of *Kr. d. r. V.*) which teleological causality does not. See *Kr. d. U.*, §65: mechanical causality is considered *real* (viz. a product of the understanding, and as such an objective aspect of the phenomenal realm), whereas teleological causality is merely *ideal* (viz. a product of reason, employed regulatively to comprehend the existence and maintenance of organized beings) (Ak 5:372–73; Bernard, p. 219). This difference is indicated at *Kr. d. U.*, §61: "The teleological act of judgment is rightly brought to bear ... upon the investigation of nature, but only in order to bring it under principles of observation and inquiry .. without any pretense to *explain* it thereby. It belongs therefore to the reflective and not to the determinant judgment" (Ak 5:360; Bernard, p. 206).

⁷⁸ See, e. g. *Kr. d. r. V.* B 654: "Reason could never be justified in abandoning the causality which it knows for grounds of explanation which are obscure and indemonstrable"; and B 568.

⁷⁹ *Kr. d. r. V.* B 586. Kant argued in the *Kr. d. r. V.* that this teleological causality was possible, in some undefinably stronger sense, because morality required it. But this still fell short of being an item of knowledge.

pursue natural mechanism ... as far as can be done with probability.⁸⁰ In an often-quoted passage from §76 of the *Critique of Judgment*, Kant wrote that “we cannot adequately cognize, much less explain, organized beings and their internal possibility according to mere mechanical principles of nature, and we can say boldly ... that it is absurd for men to make any such attempt, or to hope that another Newton will arise in the future who shall make comprehensible to us the production of even a blade of grass according to natural laws which no design has ordered”.⁸¹

Matter’s inertness or lifelessness, its purely external and mechanical nature, that is to say, its lack of any inner principle of action, precludes a material grounding or explanation of any organized being. In a discussion of “purpose in nature” Kant contrasts the *moving power* (*bewegende Kraft*) of a machine with the *formative power* (*bildende Kraft*) of organized beings: “In a watch, one part is the instrument for moving the other parts, but the wheel is not the effective cause of the production of others ... A watch wheel does not produce other wheels; still less does one watch produce other watches, utilizing (organizing) foreign material for that purpose ... An organized being is then not a mere machine, for that has merely *moving power*, but it possesses in itself *formative power* of a self-propagating kind which it communicates to its materials ... it organizes them, and this cannot be explained by the mere mechanical faculty of motion”.⁸²

Mechanical grounds of such features of the living world as reproduction, growth, and self-maintenance “can certainly be *thought* without contradiction, but cannot be *comprehended* [begriffen]”.⁸³ This passage suggests what I take to be Kant’s mature position on the animal-machine hypothesis: brutes can be thought of as machines and according to the universal causality of the phenomenal world they *are* machines, but they cannot be comprehended or understood as machines, and consequently, as a *scientific* (as opposed to a metaphysical) *doctrine*, Descartes’ hypothesis is worthless.

IX. Summary

Given Kant’s central doctrine that everything within the phenomenal world is enmeshed within the nexus of natural causation, and given his belief that brutes lack noumenal agency or anything that might remove them in some sense from this web, then it appears that his view of brutes should be similar to Descartes’. Kant also denies (at least some form of) consciousness to brutes, and he often wrote of the mechanical

⁸⁰ *Kr. d. U.*, § 80 (Ak 5:417–18; Bernard, pp. 266–67). See also *Kr. d. U.*, § 82 (Ak 5:429; Bernard, p. 279), and the early *Beweisgrund* (Ak 2:114): “it is absurd to consider the first production of a plant or animal as a mechanical effect according to general laws of nature ...”

⁸¹ *Kr. d. U.* (Ak 5:400; Bernard, p. 248). See also § 67 (Ak 5:378; Bernard, p. 225) and § 77 (Ak 5:409–10; Bernard, p. 258).

⁸² *Kr. d. U.*, § 65 (Ak 5:374; Bernard, pp. 220–21).

⁸³ *Kr. d. U.*, § 64 (Ak 5:371; Bernard, p. 217).

nature of animality. That Kant nevertheless rejects Descartes' animal-machine hypothesis leaves us with the problem of reconciling this rejection with his beliefs about phenomenal causality and the brute's lack of noumenal agency.

Kant believed that brutes had representations of the world, and this was incompatible with their being material machines. Related to this is Kant's concept of matter as inert, which requires that any living being possess an immaterial principle (which, presumably, is what also underlies the brute's representational capacity). Yet Kant could not allow that brutes were in some way *not* determined (i. e. that they were noumenally free), and so attributed to them a "spiritual determinism". Having suggested how Kant avoided Descartes' mechanism, I note Kant's heuristic point that the animal-machine hypothesis was in any event useless for scientific inquiry, insofar as mechanical explanations of the biological world are beyond our human abilities. Kant's rejection of Descartes' hypothesis was thus far-reaching, as well as consistent with certain other of his views concerning brutes and nature.