

Kant on the Embodied Cognition

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Abstract

My aim in this paper is to explode two myths about Kant. The first myth is that Kant's early pre-critical writings are uninteresting dogmatic juvenilia written when Kant was under the spell of Leibniz and Wolff. On the contrary, I find the pre-critical works interesting both in their own right and for understanding the origins of Kant's celebrated critical system of philosophy. I also believe that, from his very first writings, the pre-critical Kant broke from both Leibniz and Wolff. The second myth is that Kant, as the paradigm of "Enlightenment rationality" either ignored or evinced a hostile disdain for philosophical issues connected with our embodiment. Although I am sympathetic with the feminist critics who push this line, I believe that in this case they are dead wrong. Despite appearances, Kant was very much concerned with the philosophical significance of embodiment. I think that this concern manifested itself throughout Kant's career, although I admit that it is most evident in the relatively little-known early and late works.

I. Introduction

In one of those little-known early works, Kant's concern with embodiment is palpable, and I think also that studying it presents very vividly why Kant's pre-critical texts deserve to be taken more seriously than they have been. The pre-critical text I will use is especially disreputable among those few critics who have commented on Kant's early works: in it, Kant presents fanciful speculations on the inhabitants of other worlds. Most critics have passed over this text in embarrassed silence. This response, I maintain, is completely underserved.

In the Appendix, the third section of the *Universal Natural History*,* Kant gave an account of the role in cognition of specific actions of

the body on the mind. Although his discussion of the inhabitants of other planets was fanciful, it raised two important philosophical points. The first was the idea that all the soul's conceptual activity is dependent on sensory material that it receives as the effect of bodily action. For Kant, as for Leibniz before him, the soul's perspective or outlook on the world was mediated by the body. The second philosophical idea was that the sluggishness of the body, which is caused by the body's specific material constitution, impedes the ability of the soul to think. If cognition is viewed as a succession of mental states, Kant's claim was that this succession depends causally on a corresponding succession of bodily processes. Specifically, he argued that the body's sluggishness hinders, degrades, or impedes the succession of states that occur in the soul. Because the succession of states in the soul depends on the succession of states of the body, Kant concluded, the specific character of our bodies' material constitution affects the character of our cognition.

Thus what I call Kant's account of embodied cognition in the *Universal Natural History* did not merely assert that the quality of the sensory material provided by the body affects the quality of cognition. Kant argued that the soul is dependent for any change—and thus for cognition, which involves a temporal sequence of mental states—on the successive states of the body.

These two points were systematically related by Kant. A sluggish body will only register large-scale changes in the world, for it is not nimble enough to respond to or track subtle or quick changes. Thus this sluggishness limits the quality of the sensory material that the body provides. Kant's second point was that the sluggishness also degrades the efforts of the soul to overcome this sensory confusion by using its own conceptual powers to (among others) compare, abstract, reflect, and find a universal. Since the succession of mental states depends in such a strong manner on the succession of bodily states, a sluggish body does not allow the mind to operate at a rate that gives the mind's own activities a fighting chance to clarify confused perceptions. Kant believed that this sluggishness was a characteristic of the material that constituted the entire body,

and this is why he was concerned with the “nimbleness” of the entire body and not just in particular with the state of the brain. Kant argued that the soul’s ability to act on itself was dependent on its receiving an appropriate succession of bodily actions. His deepest point about the soul’s dependence on the body was that our bodies’ sluggishness entails that our souls do not receive appropriate successions of bodily actions. A sluggish body, he maintained, gives the soul gross sensory information *and* causes the soul to exercise its own powers in a gross manner.

In the rest of this paper, I will discuss two topics related to Kant’s pre-critical account of embodied cognition. First I will discuss the reason why Kant thought that our bodies were sluggish in the way I’ve described. He argued that matter is unequally distributed in our solar system: heavier matter collects on the inner planets while the outer planets are constituted out of lighter matter. Our bodies are relatively sluggish because they are composed out of earthly matter, which is relatively dense. I will close this talk by considering Kant’s views about the effect of our material constitutions on our cognition.

II. The unequal distribution of matter in our solar system

The third section of the *Universal Natural History* was titled “Appendix, of the inhabitants of the stars” (1:173).[1] Kant noted that matter is distributed unequally in our solar system: heavy matter collects on the inner planets, lighter matter on the outer planets. [2] After asking what effect this distribution of matter might have on the bodies of any inhabitants of the other planets in our solar system, Kant sensibly concluded that this question can only be answered by studying the inhabitants of Earth. He set out a specific query about humanity:

We merely wish to investigate as to what limitations his ability to think and the mobility of his body...would suffer through [the specific earthly nature] of the properties of matter with which he is linked and which are proportioned to the distance from the sun. (1:180)

Just as each planet is constituted out of a specific proportion of heavier and lighter matter (“proportioned to the distance from the sun”), so too is every being on that planet. Any inhabitants of Jupiter, for example, would have much less dense bodies than our own, which would be composed of relatively dense earthly matter. It is plausible to suppose that this difference might affect the relative mobility of the inhabitants of the planets: the lighter, airier bodies of Jupiter’s inhabitants might be expected to move more nimbly and quickly than we can, and indeed their bodily processes generally might well be able to proceed at a higher rate than is possible for our earthly bodies.

III. The effect of this on our ability to think

The philosophical heart of the Appendix to the *Universal Natural History* consisted of Kant’s speculations on how these bodily differences might affect beings’ ability to think. Kant addressed this issue in the continuation of the passage cited above:

Whatever the infinite distance between the ability to think and the motion of matter, between the rational mind and the body, it is still certain that man—who obtains all his notions and representations through the impressions which the universe through the mediation of bodies evokes in his soul, both in respect of their meaning and of the readiness to connect and compare them, which man calls his ability to think—is wholly dependent on the properties of that matter to which the creator joined him. (1:180).

Although it was not the main point of this quotation, metaphysical dualism was part of the philosophical context of this passage: in 1755, Kant believed that the “rational mind” or “soul” was an immaterial substance distinct from the matter of our body. Though separate substances, he thought that our minds and bodies are closely related, for the ability of a being’s mind to think “is wholly dependent on the properties of that matter to which the creator joined” it, which is to say that it is wholly dependent on the properties of the matter of its own body. As Kant made clear in

this passage, this dependence does not consist simply in the body serving as a conduit of sensory stimulation. Rather, Kant's view was that all of our ability to think, even abilities that seem purely mental like "the readiness to connect and compare" representations, are "wholly dependent" on the material constitution of our bodies. Kant made this claim repeatedly. In this passage, for example, he asserted that the body was "indispensable" even for "interior" mental operations:

Man is so created as to receive the impressions and stirrings which the world must evoke in him through that body which is the visible part of his being, and the material of which serves not only to impress on the invisible soul that dwells in it the first notions of external objects, but also to recall and connect them interiorly, in short [that body] is indispensable for thinking. (1:182)

Here again Kant affirmed the necessity of bodily activity for thinking in general and not simply for the reception of outer impressions. For Kant, bodily action stood as a condition for recalling and connecting representations once they are "inside" the mind. Of course, our bodies' constitutions do set limits on our experience of the world; for example, our ears are sensitive to a certain range of frequencies of sound. However, as I have shown, Kant's claims about the role of the body in cognition went far beyond this. Just as our sense organs must limit which impressions we receive, so do they and other bodily structures set limits on how quickly and how well our souls can "recall and connect" impressions. Kant's guiding idea was that the character of the soul's actions depends on the relative distribution of heavy and light matter. Namely, the soul performs swift and accurate comparisons, abstractions, and other conceptual activities only if the body with which it is associated is composed of light matter that can act in a quick and not in a sluggish manner.

The constitution thesis: the "forces of the soul" are "hemmed in and impeded by the obstacles of a crude matter to which they are most intimately bound"[3]

Here is Kant's position "summed up in a general notion:"

The stuff, out of which the inhabitants of different planets as well as the animals and plants on them, are built, should in general be lighter and of finer kind, and the elasticity of the fibers together with the principal disposition of their build should be all the more perfect, the farther they stand from the sun. (1:358)

From this, Kant argued, a second general notion follows. If the "spiritual faculties have a necessary dependence on the stuff of the [bodily] machines which they inhabit" (1:358), it follows that:

[T]he excellence of thinking natures, the promptness in their reflections, the clarity and vivacity of the notions that come to them through external impression, together with their ability to put them together, finally also the skill in their actual use, in short, the whole range of their perfection, stands under a certain rule, according to which these natures become more excellent and perfect in proportion to the distance of their habitats from the sun. (1:359)

According to the account of human nature in *Universal Natural History*, human beings can attain a limited degree of intellectual maturity, but only after great effort and only for limited periods. Kant argued that "the lives of most men" are ill-suited to promote the development of the interaction between their bodies and souls (1:355). In a striking passage, Kant remarked that "in the measure of which the body develops, the faculties of the thinking nature also obtain the corresponding degrees of perfection" (1:355). Bodily physical and sexual maturity is required for our minds to be truly developed; our minds "reach a definite and mature status only when the fibers of [our] body-instrument achieve the strength and endurance which is the completion of their development" (1:355). Physical maturity, however, is insufficient for mental or intellectual maturity. Kant noted that "in some men the development stops" when mere physical maturity is reached. When development stops here, the results are catastrophic for our cognitive abilities. Kant

concluded gloomily:

When we consider the lives of most men, this creature seems to have been created to absorb fluids, as does a plant, and to grow, to propagate his species, and finally to age and die. He of all creatures least achieves the goal of his existence, because he uses his outstanding faculties for such purposes which other creatures accomplish more securely and conveniently with far inferior [faculties]. (1:355)

Though we are blessed with souls that can surpass a purely animalistic existence, Kant pessimistically observed most of us rarely if ever strive for anything beyond those lowly ends at which plant and animal existence is directed. Even in the prime of life, when physical strength and agility and intellectual maturity are at their greatest, our bodies' material constitutions degrade and debase our souls. To improve our condition, however, we should of course not wish for the escape of our souls from our bodies (for in that case we would not think at all), but rather for the refinement of our control over the bodily actions which are "indispensable for thought".

Our debasement does not arise because the body imprisons the soul, but because the relatively dense material of our bodies cannot move lightly or quickly or gracefully enough to act on the soul in a manner that produces good cognition. Our bodily motions are too "gross", Kant argues, because the dense matter we are composed of makes us "unbending", "sluggish", and "immobile". He wrote:

If one looks for the cause of impediments which keep human nature in such a deep abasement, It will be found in the crudeness of matter into which his spiritual part is sunk, in the unbending of the fibers, and in the sluggishness and immobility of fluids which should obey its stirrings. The nerves and fluids of his brain deliver to him only gross and unclear concepts, and because he cannot counterbalance in the interior of his thinking ability the impact of the sensory

impressions with sufficiently powerful ideas, he will be carried away by his passions, confused and overwhelmed by the turmoil of the elements that maintain his [bodily] machine. The efforts of reason to rise in opposition and to dissipate this confusion with the light of the ability to judge will be like flashes of sunlight when thick clouds continually obstruct and darken its cheerful brightness. (1:356-57)

By contrast, those whose bodies are the most nimble, for example agile athletes, can expect a host of gifts. In virtue of the manner in which their bodies can stir their souls, they will possess deeper insight, quicker wit, and judgment that is less prone to error.

It is important to emphasize that Kant did not assert that the problem with our cognition is that the soul is dependent on its interaction with a corporeal body. Rather, the fault lies in the specific, contingent natures of that matter of our bodies. Kant wrote:

The grossness of stuff and of the texture in the build of human nature is the cause of that sluggishness which keeps the faculties of the soul in perennial dullness and feebleness. The handling of reflections and representations enlightened by reason is a tiresome condition into which the soul cannot place itself without opposition, and out of which the soul would, through the natural inclination of the bodily machine, soon fall back into the passive condition, where the sensory impressions determine and rule all its activities. (1:357)

If our bodies are too sluggish, our souls will exist in the “passive condition” which is a hallmark of merely animalistic existence. This is why Kant believed that the best form of human existence—that with the highest intellectual and moral refinement—required a nimble, healthy body that can both act upon and be acted upon by its soul in the right ways.

Although as a separate substance the soul can exist apart from the body, Kant insisted that disembodied human souls cannot have

human cognition. The reason for this, as I discussed above, is that the soul's ability to act on itself is dependent on it receiving an appropriate succession of bodily actions.[4] As the body becomes less nimble in old age, the soul too fades into senescence. Kant concluded:

[T]he spiritual faculties disappear together with the vigor of the body: when owing to the slackened flow of fluids advanced age cooks only thick fluid in the body, when the suppleness of the fibers and the nimbleness in all motions decrease, then the forces of the spirit too stiffen into a similar dullness. The agility of thought, the clarity of representation, the vivacity of wit, and the ability to remember lose their strength and grow frigid. (1:357)

To be sure, Kant believed that there are distinctively *mental* powers, which he refers to here generally as "the forces of the spirit" and that include memory and such conceptual actions as the comparison and abstraction of representations. According to Kant's account of embodied cognition, however, these mental powers are activated only if the body provides the right input. Cognition as we know it is without exception marked by the way "that the forces of the human soul become hemmed in and impeded by the obstacles of a crude matter to which they are most intimately bound" (1:184) Although we can never escape the dismal heritage of the gross earthly matter of our bodies, our souls would not think at all if they were not continually acted on by their bodies. This is why Kant was committed to a thoroughly embodied account of cognition in 1755.

Endnotes:

* All quotations are from Kant I. (1969) *Universal Natural*, University of Michigan Press.

[1] The Appendix has generally been passed over by Kant scholars in embarrassed silence. An exception is J.B. Schneewind, who discusses its significance for the development of Kant's moral thought. See his *The Invention of Autonomy: A History of Modern Moral Philosophy* (Cambridge: Cambridge University Press, 1998), pp. 498-501. I am grateful

to Damian Konkoly for providing this reference.

[2] Kant was not the first early modern philosopher to speculate about the inhabitants of other planets. In this *Elementa Methesos Universae*, Wolff used planets' distances from the sun to infer the size of their inhabitants. On this see Schneewind, *The Invention of Autonomy*, p. 498 n.29 and W.H. Barber, *Leibniz in France* (Oxford: Oxford University Press, 1955), p. 153.

[3] This quotation is from 1:184.

[4] This is why, in the Appendix to the *Universal Natural History*, Kant focused on the body's effect on the soul and not on the soul's effect on the body or the soul's effect on itself.