

Can Gaia be exploited?

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Does the planet earth as defined in James Lovelock's Gaia hypothesis possess any intrinsic rights, and if so, does human activity therefore constitute an exploitative violation of these rights?

First formulated by Lovelock during the 1960s as a result of his work for NASA's research into detecting life on Mars, the Gaia hypothesis proposes that the living and non-living parts of the Earth together comprise a complex 'geophysiology', an interacting system that can be thought of as a single organism with global-scale parallels to many of the physiological processes normally associated with multicellular animals. Following the suggestion of novelist William Golding, Lovelock named his hypothesis after the Greek goddess Gaia as a way to metaphorically postulate his notion that the biosphere has a regulatory effect upon the planetary environment that serves to sustain life.

In choosing to phrase my two-part question this way, I both clarify some issues and muddy others.

To begin with, the choice of focusing on our planet is intended to partially bracket the intractable debate concerning the definition of *nature* per se by limiting my investigative scope to a specific instance of nature (moreover, by focusing on Lovelock's Gaia hypothesis, I am limiting my scope even further, to a specific thinker's understanding of a specific theoretical approach to a specific instance of nature). However, the phrase 'planet earth' does have some ambiguity: do we mean just the surface of the planet, and if so, how deep and how high? Although my own instinct is to go as deep as the core and as high as the moon, I shall follow Lovelock, who focuses upon the range between the lithosphere (0-60 km in depth) to either the thermosphere (up to 690 km in height) or the exosphere (up to 10,000 km in height).

More importantly is what do I mean by "right" (much less "intrinsic right"), "human activity", and "exploitation" (the concept of "violation" being assumed in the idea of "intrinsic right")?

The second concept, "human activity", is the relatively easiest here to define: primarily those actions of contemporary technological civilization that depend directly upon utilizing the planet's resources. Note that I say primarily, as ultimately I am interested in the broader question of human civilization *in toto*, historical and contemporary, and that I say directly, i.e., actions that are consciously focused upon making use of the planet's resources, e.g., mining, farming, electricity generation, etc., as opposed to those actions that typically are unconscious or automatic, e.g., breathing. Such 'indirect' uses of the planet's resources are also important, but on the question of rights may logically fall in the background (by way of comparison, when we talk about a human person's right to privacy, we talk about this against an assumed background of the legion non-private human activities that constitute the space of that privacy).

As for "exploitation", I am following Dr. Nicholas Vrousalis' definition and exploration in our course on *Ethics and Public Policy* as a form of domination for self-enrichment: "A obtains a benefit from B by taking advantage of B in virtue of B's relational vulnerability vis-à-vis A". My interest in exploring the Gaia hypothesis with respect to Vrousalis' definition is motivated by two interests. The first is that Vrousalis' definition is presuming moral exploitation and does not address whether there can be non-moral exploitation, much less mutual exploitation (in either a moral or non-moral sense). This is not a criticism; rather, just as Lovelock tests the limits of the Darwinian concept of evolution by applying it to such a massive scale, I wish to do the same to Vrousalisian exploitation. The second interest, meanwhile, has much to do with an underlying metaphysical question, namely, must either A and/or B possess subjectivity and agency in order for there to be exploitation?

That second interest naturally leads the way to the debate over personhood (not to mention sentience, e.g., artificial intelligence), which I shall have to partially bracket in this paper lest I am drawn too far into this issue, but which nonetheless pertains very much to the final concept here, 'right'. Unfortunately for me, what I have in mind is the liberal tradition of thought. Clearly, this is a bag of worms, so my use of the adjective 'intrinsic' is intended to limit my investigative scope upon (if nonetheless still vaguely) the conception of natural rights, i.e., certain absolute, necessary, inherent or "inalienable" (to quote Thomas Jefferson) pre-conditions for what it means both to be a human person and what one deserves as such from the social contract. Consequently, yes, I am asking whether the planet earth in some sense qualifies as a person, although obviously not a human person, or even more precisely, as a subjectivity with agency. In other words, I am radically expanding the scope of liberalism's overall claims, much as Peter Singer has attempted to do for more readily recognizable forms of complex organic life. I should stress, however, that although I shall attempt to make some form of normative claim by the end, it shall inevitably raise more questions than I am capable of answering within the very limited space of this paper.