

Panpsychism as environmental philosophy

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Panpsychism—the view that all things are associated with at least a small amount of consciousness—has seen a revival in contemporary philosophy and neuroscience as a radical answer to the mystery of the origin of our own consciousness. But could it also contribute to a response to current day environmental emergencies, by inspiring a deeper respect for nature? Many environmental philosophers have pinned their hopes to this. I will argue that panpsychism may to some extent support such a hope, but also discuss some possible limitations.

Being conscious means that it feels like something to be you, or in other words, to have an inner, subjective mental life in addition to one’s physical exterior. Seeing the blueness of the sky, tasting something sweet, dreaming or having a philosophical insight—these are all conscious experiences.

Many philosophers and scientists have taken consciousness to be reserved for humans alone, or at most the so-called higher animals, while dismissing other creatures as merely mechanical and devoid of feeling. Today, however, consciousness is increasingly considered to extend across large parts of the animal kingdom: signs of consciousness have purportedly been identified in everything from birds and octopuses to fish and even insects. The hypothesis that plants are conscious, which used to be considered beyond the pale, has even appeared in respectable scientific journals,¹ as well as best-selling books (such as Peter Wohlleben’s *The Secret Life of Trees*, 2016). In addition, it is often speculated about whether, for example, certain kinds of computers or robots could become conscious.

According to panpsychism, however, this is still far too conservative. Panpsychism is, literally understood, the view that everything is conscious (from Greek *pan*=everything, and *psyche*=mind, soul). Often associated with animism, the view that natural entities such as the wind, the sun, mountains and so on, have their own spirits or souls, which is common among many indigenous societies, panpsychism also has deep roots in Western philosophy, with proponents including Ancient philosophers Thales, Empedocles and Epicurus, Enlightenment philosophers Spinoza and Leibniz, and many others.

¹ E.g. Yokawa et al. (2018) “Anaesthetics stop diverse plant organ movements, affect endocytic vesicle recycling and ROS homeostasis, and block action potentials in Venus flytraps”, *Ann. Bot.* 122 (this has been interpreted as supporting plant consciousness even though the article itself does not explicitly make that claim), and Gagliano (2017) “The mind of plants: thinking the unthinkable”, *Commun. Integr. Biol.* 10.

To the surprise of many, a kind of panpsychism is also finding increasing support within contemporary, scientifically informed philosophy, and to some extent science itself. According to this kind of panpsychism, simple physical entities, such as atoms, protons or quarks also enjoy an extremely simple form of consciousness. When such particles are combined in certain ways, as in the brain, a more complex form of consciousness will arise in these already complex systems as a whole—so-called *macroconsciousness*. But there could also be complex systems that are not conscious as a whole, but that should rather be understood as mere collections or aggregates of so-called microconscious particles. This may include artifacts such as tables and chairs, as well as the wind, mountains, and other entities animism traditionally considers ensouled.

This kind of panpsychism can be supported by a number of philosophical arguments. The argument from continuity claims that just as no sharp physical distinction can be drawn between animals and humans—given that all species, including humans, have arisen gradually through evolution—neither is there a sharp physical distinction between life-and non-life—as living and non-living entities consist of the same physical matter governed by the same laws of nature, and life emerges via gradual increments of complexity and function (as illustrated by borderline cases such as viruses). One should therefore not draw a sharp mental distinction either by regarding only living creatures as conscious.

Another argument, which can be called the integration argument, claims that panpsychism offers a better explanation of how consciousness fits into the physical world than the traditional theories of physicalism and dualism.² Dualism, which was made famous by the philosopher René Descartes and can also be traced back to Christianity's distinction between body and soul, regards consciousness as an immaterial substance distinct from the physical world. Physicalism, which is generally taken to be supported by modern science, holds that consciousness is entirely reducible to physical brain processes. According to panpsychism, the truth lies somewhere in between. In short,³ this is based on a claim that the physical sciences (physics, chemistry, and so on) describe the world only as it appears from the *outside*: they tell us how physical things *relate* to other physical things, not how they are in and of themselves. However, every outside needs an *inside*, and we do know the inside of some physical things, namely ourselves; consciousness can be understood as the inside of our own physical brain, or how it is in itself. Why not assume that other physical things have insides of the same kind; that is, that they too have (or consist of particles that have) at least a simple form of consciousness? If so, consciousness would be an essential aspect of physical nature, but still be more than purely physical.

In addition, panpsychism has found support within modern neuroscience. According to the Integrated Information Theory (IIT), a leading though controversial theory of consciousness developed by Italian neuroscientist Giulio Tononi, the kinds of brain states that seem necessary for human consciousness are characterized by a large amount of integrated information, also

² This argument (or versions/parts of it) has recently been defended by philosophers such as Galen Strawson, David Chalmers and Philip Goff.

³ For more details, see my “Is Matter Conscious?”: <http://nautil.us/issue/47/consciousness/is-matter-conscious>

known as Φ (*phi*)—a structural property with a precise mathematical definition.⁴ But integrated information is found not only in the brain: small amounts are also present in entities such as cells, minerals, and probably also atoms and protons. IIT therefore implies that such entities have a small amount of consciousness.

In view of this, panpsychism is being taken increasingly seriously as an answer to the mystery of the origin of our own consciousness. Only a small minority of philosophers explicitly endorse the view, but opponents can no longer dismiss it outright. But in addition to this theoretical impact, it has also been claimed that panpsychism may have considerable practical or ethical significance, mainly within environmental philosophy.

In environmental philosophy, it is often claimed that humanity's lack of respect for nature fundamentally derives from an anthropocentric worldview, according to which only humans possess intrinsic value, whereas nature is valuable only to the extent that it is valuable to us. That is to say, nature only has *instrumental* value, and we are thus justified in exploiting it as we please. This anthropocentric worldview can be traced back to Christian or Cartesian dualism, a view culturally internalized in us from childhood. It is further claimed that, in order to fully rid ourselves of this anthropocentrism, this dualism must be replaced by a kind of panpsychism, which would compel us towards treating nature with a vastly greater respect. These ideas have been highly influential within environmental philosophy since being put forth by historian Lynn White in 1967 ("The Historical Roots of Our Ecological Crisis"). They are also gestured at by philosopher Arne Næss, known as the founder of Deep Ecology, the philosophy which (in contrast to what Næss dubs "shallow ecology") regards nature as valuable in itself.

A common objection to this line of thought is that even if panpsychism could motivate a deep respect for nature, we have little reason to hold it to be true, and to regard a view as true merely because it has desirable consequences would be unjustified. In response to this, however, one could point to the aforementioned arguments according to which panpsychism can be supported on both philosophical and neuroscientific grounds.⁵ Thus, there is an independent basis for taking it to be true.

Still, the question remains of whether panpsychism really is capable of motivating a deeper respect for nature in the first place, and if so why? One important idea is that consciousness is what affords humans moral status as beings with intrinsic value, or as the philosopher Immanuel Kant would have put it, beings that should be treated not merely as means but also as ends in themselves. If animals, plants, and non-living things are conscious, they also have intrinsic value, as opposed to merely instrumental value, or should also be regarded as ends in

⁴ For more about the Integrated Information Theory, see my introduction here: https://philosophynow.org/issues/121/The_Integrated_Information_Theory_of_Consciousness

⁵ It should be noted that this is not the exact same kind of panpsychism as environmental philosophers have typically suggested should replace our current anthropomorphism. On the one hand, many have claimed that we need to return to something closer to the kind of animism mentioned above, which is still widespread among indigenous societies today. White, on the other hand, has proposed a Christian version of panpsychism inspired by Saint Francis (who was known for talking to flowers and stones, and for praising all of nature as equally valuable parts of creation). I will focus on the kind of panpsychism figuring in more recent discussions mentioned above, since it seems more strongly supported by independent arguments.

themselves rather than mere means. If a plant, for example, is conscious, it would also have the capacity to care what happens to it, to have negative experiences such as pain or be deprived of positive experiences such as pleasure, and so on. This is something we would have a moral obligation to take into consideration, at least to a certain extent, just as we do with the interests of other humans.

Countering this argument, one might point out that even if we assume all of nature to be conscious, we wouldn't know what kind of consciousness it contains, and thus what kind of consideration to show towards it. How do we know, for example, whether the forest floor, or the minerals and other materials that make it up, is "hurt" or has any sort of negative "microexperiences" from being stepped on, or whether wood "dislikes" being burned—for all we know, couldn't it be the other way around, i.e., that it leads rather to a kind of positive "microexperience"? Or perhaps most things find it just as "pleasant" to lie on a landfill as to be part of a living nature?

One possible response is that we may assume that most things have positive experiences associated with what they naturally seem to strive towards. For example, a plant would most likely have a positive experience from standing in the sun and a negative experience from being cut down. When it comes to non-living things, one might think that the way nature develops without human intervention is roughly the way it "wants" to be, such that blowing up a mountain, for example, would be a negative experience for it (or its mineral constituents).

Additionally, one might think variety or diversity of experiences is valuable in itself. We tend to think of the variety we see in nature as having a value of its own. But if this variety is merely physical then it is not clear why this would be so, because it is unclear why purely physical variety should have value beyond its potential to cause varied and diverse experiences in human or other conscious observers. Given panpsychism, destruction of natural diversity would lead to a strong reduction in the kinds of experiences that occur in the world—on the assumption that each unique physical structure corresponds to a unique kind of experience—and diversity of experience is more clearly intrinsically valuable than mere physical diversity.

We might also assume that things with complex, unified macroconsciousness have an interest in sustaining this unity, that is, in not being dissolved into a collection of simpler microconsciousnesses. This is what our own death would amount to given panpsychism, and we might assume other things also "want" to avoid death thus understood. It also seems that living creatures, including plants, would have some form of complex macroconsciousness—at least, this is supported by the aforementioned Integrated Information Theory, which implies that living creatures, or at least their cells or other biological constituents, have combined consciousness since they also have higher levels of *phi* (much lower than the human brain but still much higher than, e.g., atoms). If so, panpsychism would support the protection of animals and plants, as well as the natural environments and climates they depend on, to the greatest possible extent, even when this conflicts with human interests.

Still, even if such arguments were sufficient to show that we are *morally obligated* to hold nature in much greater regard, they might not be sufficient to *motivate* us towards it. We shouldn't forget that even though we take for granted that other people are conscious, and most

of us take the same to hold for animals such as dogs, cows and pigs, this does not stop us from treating especially animals as mere means, with very little regard for their own interests (just think of industrial meat production or animal experiments). And clearly, it doesn't always motivate us to treat other people ethically either. If the assumption that animals and other people are conscious has such weak motivational power, wouldn't the assumption that plants and non-living things are also conscious, and to a much lower degree, have even less?

This leads us back to one of the fundamental questions of moral philosophy: the question of why we should act morally or altruistically at all, as opposed to purely egoistically. If we had a strongly motivational answer to this question, panpsychism should also be strongly morally motivating. But given the amount of moral motivation most people already have, panpsychism may seem largely morally impotent.

Yet, it could be that panpsychism itself contributes to an answer to this fundamental question. In addition to positing more consciousness in the universe than we ordinarily think there is, panpsychism might also imply a different relationship between us and other consciousnesses than we typically imagine. Given panpsychism, other consciousnesses can be understood not as separate egos, but rather as different forms of one and the same "quantity" or "amount" of consciousness—in the same way all physical things can be understood as different forms of the same total amount of energy. And just like physical energy, consciousness can never be created or destroyed, but merely transition into a different form. At the point of our own death, for example, consciousness would, as mentioned, not really disappear but instead break down into a number of microconsciousnesses belonging to, for example, individual particles in our brain—some of which could later become part of other macroconscious systems. This may contribute to erasing the distinction between self and other, and thereby also the distinction between egoism and altruism. Put another way, by acting in the interests of nature, and contrary to our own short-term interests, we would actually be acting in our own interests in the long term, as nature is what our own consciousness will eventually continue as in a different form.

This idea combines panpsychism with a holistic view of the cosmos that also figures in the philosophy of Spinoza, who as mentioned was also committed to a kind of panpsychism. It also involves a view of the self closely related to those prominent within Eastern philosophy and ethics. One might question whether it has the kind of immediate motivational power necessary to respond efficiently to today's environmental emergencies. Even if the idea is accepted, it would need time to internalize not only intellectually but also emotionally, culturally, and so on. But purely philosophically speaking, panpsychism might be what we need to find a new moral direction – as a philosophy that puts humanity outside the center of the universe, but at the same time deeply at home in it.