Life, Value of



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Definition

The phrase "the value of life" can refer to, among other things, the value of life as a phenomenon, the value of particular life forms, the value of individual organisms, or the value of being alive. When used in connection with astrobiology, "the value of life" usually refers either to the value of life as a phenomenon or the value of a particular life form such as extraterrestrial life or a particular species of extremophile.

Overview

Value, whether of life or of other things, comes in many different forms. It is, for instance, common to distinguish between instrumental value and end value (also called final value, intrinsic value, or noninstrumental value) where the former refers to the value something has as a means for promoting something else that has value, while the latter refers to the value something has as an aim in itself, independently of whether it can also promote other values. End value is sometimes described as the final stage in a chain leading up to one or more ultimate values. What "ultimate"

means in this sense is debated. Some argue there can only be one ultimate value, and thus only one phenomenon that has value as an end in itself. This position is known as value monism. Happiness is a common candidate as the one ultimate value according to this position. If that is correct, life can only have instrumental value as being (presumably) a necessary condition for happiness. The opposite position is called value pluralism, and it states that there is no reason why there cannot be more than one end value. Typically, this position considers end value to be subjective and determined by the preferences of individual sentient beings, while others claim that even though there can be more than one phenomenon with end value, some things are suitable as having end value but others are not.

A basic tenant of astrobiology is that life has epistemic value, meaning that life can be used to forward the production of knowledge. The epistemic value of life is therefore a form of instrumental value. The knowledge achieved in this way can in turn be seen as having value in its own right (> end value) or as a means to other things (> instrumental value), for instance, helping us becoming better stewards of the living environment on our own planet.

It is also common, both among astrobiologists and among people in general, to assign end value to life. This is probably both a strong driving force for astrobiology, and a complicating factor because of the inherent impossibility of studying life without 2 Life, Value of

disturbing it in any way (see also the entries on research ethics and planetary protection).

Another common value distinction is that between inherent value (also called intrinsic value) and relational value (also called extrinsic value). The former refers to value that comes from an internal property of the phenomenon with value, while the latter refers to value that comes from some relational property of the phenomenon with value.

In astrobiology, a species can have inherent value, for instance, because of its ability to withstand extreme cold or because of a particularly interesting chemical composition (both inherent properties). If life is found on another planet or moon, it will (in addition to any inherent value it may have) have relational value because it is found on that particular planet or moon. Though some argue that end value can only supervene on inherent properties, it is usually acknowledged that both inherent value and relational value can also be either instrumental or end value. The value a life form has because it is found on another world (relational value) can be seen as valuable in its own right (end value), and it can also be

valuable for its ability to increase our understanding of life in general as well as our understanding of that world (instrumental value). The value a life form has because of its ability to withstand extreme cold (inherent value) is a fascinating fact that cannot only render its value in its own right (end value) but also increase our knowledge about life in general and about the limits for habitability in the universe (instrumental value).

For the question of moral status among living beings, see the entry on astrobioethics.

Cross-References

- ► Astrobioethics
- ► Planetary Protection

References and Further Reading

O'Neill J (1992) The varieties of intrinsic value. The Monist 75:119–137

Persson E (2012) The moral status of extraterrestrial life. Astrobiology 12:976–984