

How Death Involves Life, The Nature of Life

1. Some criteria of success of a conceptual analysis:
 - a. Formal considerations.
 - b. Necessity of corresponding biconditional; no counterexamples.
 - c. Non-circularity
 - d. Enlighteningness. No "per obscurius" definitions.

2. The Unity of Death.

- a. Literal vs. nonliteral uses of "dies"
- b. Univocalness.

UD: In all its literal uses, when describing something that happens to a biological organism, 'dies' univocally expresses a single concept. ('dies' means the same thing in all its literal uses in connection with biological organisms.)

- c. Dictionary argument.
- d. Joke argument (compare to 'plane')

3. How death involves life. If something dies, then it formerly lived. You cannot die without having lived.

- a. Intrinsic properties.
- b. Raccoon example

D?: x dies at t =df.alive....

- c. "The Standard Analysis":

D1: x dies at t =df. x stops being alive at t.

D2: x dies at t =df. x permanently stops being alive at t.

4. The Unity of Life.

- a. There is just one definition in the dictionary.

- b. Joke argument.
- c. The argument from the unity of biology.

5. The Mystery of Life. “Life as we know it” vs. “Life of any sort; even life as we don’t know it”.

6. Vitalism.

LV1: x is alive at t =df. there is a soul in x at t.

- a. Jonah in the whale.

LV2: x is alive at t. =df. x is animated by a soul at t.

- a. Circularity or obscurity.
- b. Assuming that there are some souls, this seems to imply that none of them is alive.
- c. If there are no souls, then this definition yields the result that nothing is alive.

7. Life functionalism.

LF1: x is alive at t =df. x engages in all the life functions at t.

LF3: x is alive at t =df. x is *able to* engage in at least *some* of the life functions at t.

Schraer and Stolze's *Biology: The Study of Life* (1983)

1. Nutrition
2. Transport
3. Respiration
4. Synthesis and assimilation
5. Growth
6. Excretion
7. Regulation
8. Reproduction
9. Metabolism

Keeton & Gould's *Biological Science*

1. Metabolism
2. Chemical complexity and organization
3. Development; self-organization
4. Evolution
5. Internal program

Ernst Mayr's *The Growth of Biological Thought*

1. Complexity and organization
2. Chemical uniqueness
3. Quality
4. Uniqueness and variability
5. Possession of genetic program
6. Historical nature
7. Natural selection
8. Indeterminacy

8. Problems for life functionalism.

- a. "All" is too much.
- b. "Potential for all" is still too much.
- c. "Some" is not enough.

9. Aristotelian life functionalism.

1. Nutrition
2. Reproduction
3. Near Sensation (touch and taste)
4. Far sensation (sight, hearing, smell)
5. Motion (local and internal)
6. Thought

10. Matthews' Neo-Aristotelianism

x is a psychic power of s =df. for s to be preserved, individual organisms that belong to s must, in general, exercise x.

LF5: x is alive =df. there is a species, s, and a psychic power, p, such that x belongs to s, p is a pp of s, and x can exercise p.

- (a) The species problem.
- (b) The hybrid problem.
- (c) The preservation problem
- (d) The problem of the dead tomatoes.