

# LIFE ITSELF

O ... Origin	Harold J. Morowitz	Beginnings of Cellular Life: Metabolism Recapitulates Biogenesis, 1992	22
N ... Nourishment	Aristotle	De Anima, ca. 350 BC	25
T ... The mule's problem	Krzysztof Chodasewicz	Evolution, Reproduction and Definition of Life, 2014	26
H ... Hot seat	Suely Rolnik	Life is in the Hot Seat, 2002	27
E ... Existence	Antonin Artaud	You Have to Begin with a Will to Live, 1965	28
Q ... Question	Lynn Margulis and Dorion Sagan	What Is Life?, 1995	31
U ... Umwelt	Jakob von Uexküll	A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds, 1934	32
E ... Emergence	S. A. Kauffman	The Origins of Order: Self-Organization and Selection in Evolution, 1993	39
S ... Selection	Thomas Nagel	Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature is Almost Certainly False, 2012	40
T ... Tick	Giorgio Agamben	The Open: Man and Animal, 2004	41
I ... Invention	Adolfo Bioy Casares	The Invention of Morel, 1940	44
O ... Obstacle	Gilles Deleuze	Bergsonism, 1988	47
N ... Neo-Darwinism	Richard Dawkins	This Is My Vision of "Life", 2015	48

<b>O</b> ... Organisation	Maurice Maeterlinck	The Life of the Bee, 1901	49
<b>F</b> ... Form	Henri Focillon	The Life of Forms in Art, 1934	52
<b>W</b> ... Work	Michel Serres	The Parasite, 1982	53
<b>H</b> ... Hunger	Herta Müller	The Hunger Angel, 2009	55
<b>A</b> ... Anthropophagia	Suely Rolnik	Anthropophagic Subjectivity, 1998	56
<b>T</b> ... Theory of vitalism	Hans Driesch	The History and Theory of Vitalism, 1914	57
<b>I</b> ... In the Case of M. Valdemar	Edgar Allan Poe	The Facts in the Case of M. Valdemar, 1845	60
<b>T</b> ... Transparence	Barbara Duden	Disembodying Women: Perspectives on Pregnancy and the Unborn, 1993	62
<b>E</b> ... Élan vital	Henri Bergson	Creative Evolution, 1907	63
<b>S</b> ... Structure	Antonio T. De Nicolás	Meditations through the Rig Veda: Four-Dimensional Man, 1976	64
<b>S</b> ... Slime	Ben Woodard	Slime Dynamics, 2012	66
<b>E</b> ... Entropy	Erwin Schrödinger	What Is Life?, 1944	67
<b>N</b> ... Nimiety	Lynn Margulis and Dorion Sagan	What Is Life?, 1995	69

<b>T</b> ... The past	Edouard Merino	Avant la neige / Je suis une Mercedes 300SL / Mario, 2006	70
<b>I</b> ... In vitro	Alexis Carrel	The Permanent Life of Tissues Outside of the Organism, 1912	71
<b>A</b> ... Autopoiesis	Humberto Maturana and Francisco Varela	The Tree of Knowledge: The Biological Roots of Human Understanding, 1987	72
<b>L</b> ... Linnaeus	Carolus Linnaeus	Systema naturae, 1735	73
<b>L</b> ... Living beings	Stéphane Leduc	The Mechanism of Life, 1911	74
<b>Y</b> ... Yielding life	Sarah Franklin	Stem Cells R Us: Emergent Life Forms and the Global Biological, 2004	77
<b>I</b> ... Insight	Harmony Korine	Gummo, 1997	78
<b>S</b> ... Synthesis	Craig Venter et. al.	Creation of a Bacterial Cell Controlled by a Chemically Synthesized Genome, 2010	79
<b>I</b> ... Intentionality	Martha Nussbaum	Capabilities and Social Justice, 2002	80
<b>T</b> ... Target	Emily Dickinson	Each Life Converges to some Centre, 1891	81
<b>S</b> ... Stroganoff	Alan W. Watts	Does It Matter? Essays on Man's Relation to Materiality, 1971	82
<b>M</b> ... Matter	Jane Bennett	Vibrant Matter, 2010	83
<b>A</b> ... Animism	Franz Kafka	Blumfeld, an Elderly Bachelor, 1915	86

<b>T</b>	... Transgenics	Luciana Parisi	Abstract Sex. Philosophy, Bio-Technology and the Mutations of Desire, 2004	90
<b>E</b>	... Engineering	Oleg Semenov, Darko Stefanovic, Milan N. Stojanovic	The Effects of Multivalency and Kinetics in Nanoscale Search by Molecular Spiders, 2014	91
<b>R</b>	... Reticulated tree of life	Stefan Helmreich	Alien Ocean: Anthropological Voyages in Microbial Seas, 2009	92
<b>I</b>	... Irreversibility	Leslie Whetstine, Stephen Streat, Mike Darwin, David Crippen	Pro/con Ethics Debate: When is Dead really Dead?, 2005	94
<b>A</b>	... Assemblage	Gilles Deleuze and Felix Guattari	A Thousand Plateaus. Capitalism and Schizophrenia, 1980	100
<b>L</b>	... Life-liness	Nikolas Rose	The Politics of Life Itself: Bio-medicine, Power, and Subjectivity in the Twenty-First Century, 2006	103
<b>I</b>	... Ignorance	Freeman Dyson	Life: What a Concept!, 2007	104
<b>T</b>	... Transformation	Julio Cortázar	Axolotl, 1952	105
<b>I</b>	... Islam	The Quran	Sûra 23: 115, 610–622 AD	110
<b>E</b>	... Egg	Denis Diderot	Conversation between D'Alembert and Diderot, 1782	111
<b>S</b>	... Sustainability	Legislative Assembly of the Plurinational State of Bolivia	Law of the Rights of Mother Earth, 2010	113
<b>I</b>	... Interdependence	Paul G. Falkowski	Life's Engines: How Microbes Made Earth Habitable, 2015	115
<b>T</b>	... Terrestrial life	Bruce H. Weber	On the Emergence of Living Systems, 2009	116
<b>S</b>	... Shellfish	David Foster Wallace	Consider the Lobster, 2004	117

<b>C</b> ... Cell	Irene A. Chen	The Emergence of Cells During the Origin of Life, 2006	120
<b>H</b> ... Human rights	United Nations	The International Covenant on Civil and Political Rights, Article 6, 1966	124
<b>A</b> ... Alteration	Sylvia Plath	Face Lift, 1962	125
<b>R</b> ... Resistance	Xavier Bichat	Physiological Researches on Life and Death, 1809	126
<b>A</b> ... Artificial	Raymond Roussel	Locus Solus, 1914	127
<b>C</b> ... Characteristics	Ernst Mayr	This is Biology, 1997	129
<b>T</b> ... Transport	Peter Ward and Joe Kirschvink	A New History of Life: The Radical New Discoveries About the Origins and Evolution of Life on Earth, 2015	132
<b>E</b> ... E. coli	Thomas Nyström	A Bacterial Kind of Aging, 2007	134
<b>R</b> ... Rapidity	Stephen Jay Gould	The Panda's Thumb. More Reflections in Natural History, 1980	135
<b>I</b> ... Intensity	Rosi Braidotti	The Posthuman, 2013	136
<b>S</b> ... Supple adaption	Mark A. Bedau	Four Puzzles about Life, 2010	138
<b>T</b> ... Thing	Steven Spielberg, Michael Grais, Mark Victor	Poltergeist, 1982	139
<b>I</b> ... Interior	Barbara Creed	The Monstrous-Feminine: Film, Feminism, Psychoanalysis, 1993	140
<b>C</b> ... Chance	Jacques Monod	Of Strange Objects, 1972	141
<b>S</b> ... Sexual products	Sabina Spielrein	Destruction as the Cause of Coming into Being, 1912	142

<b>C</b> ... Co-dependence	Octavia Butler	Bloodchild, 1984	143
<b>O</b> ... Orbiter	NASA	Viking Mission to Mars, 2015	147
<b>N</b> ... New life	Alan Dorin	Artificial Life Art, Creativity, and Techno-hybridization, 2015	149
<b>S</b> ... Schrödinger's cat	Ursula Le Guin	Schrödinger's Cat, 1974	150
<b>I</b> ... In common	Carol E. Cleland	Life Without Definitions, 2012	152
<b>D</b> ... Definitions	Carl Sagan	Definitions of Life, 1970	154
<b>E</b> ... Eternity	Giordano Bruno	De l'Infinito Universo e Mondi, 1584	156
<b>R</b> ... Recipe	E. Wade Davis	Preparation of the Haitian Zombi Poison, 1983	157
<b>I</b> ... Incarnation	Nnedi Okorafor	Lagoon, 2014	159
<b>N</b> ... Numerical example	G. J. Chaitin	To a Mathematical Definition of "Life", 1970	160
<b>G</b> ... Genetic	Carl Sagan	Definitions of Life, 1970	163
<b>T</b> ... Technosubject	Allucquère Rosanne Stone	Will the Real Body Please Stand Up? Boundary Stories about Virtual Cultures, 1991	164
<b>H</b> ... Homo sacer	Giorgio Agamben	Homo Sacer. Sovereign Power and Bare Life, 1998	165
<b>A</b> ... Agreement	Evelyn Fox Keller	Creating "Real Life", 2010	166
<b>T</b> ... Terror	Kelly Link	The Specialist's Hat, 1998	167

<b>T</b> ... Tetris	Martin Gardner	Mathematical Games. The Fantastic Combinations of John Conway's New Solitaire Game "Life", 1970	168
<b>H</b> ... Human activities	Hannah Arendt	Vita Activa and the Human Condition, 1958	172
<b>E</b> ... Eery	Eli Pariser	The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think, 2011	174
<b>A</b> ... Abject	Julia Kristeva	Powers of Horror, 1982	175
<b>T</b> ... Tumor	Helen Oyeyemi	Dornička and the St Martin's Day Goose, 2015	176
<b>T</b> ... Too much life	Jackie Stacey	Teratologies. A Cultural Study of Cancer, 1997	184
<b>E</b> ... Egg-getters and kamikaze sperms	A. T. Goetz, T. K. Shackelford, S. M. Platek, V. G. Starratt, W. F. McKibbin	Sperm Competition in Humans: Implications for Male Sexual Psychology, Physiology, Anatomy, and Behavior, 2007	185
<b>M</b> ... Metabolic	Carl Sagan	Definitions of Life, 1970	186
<b>P</b> ... Prerequisite	James Stevenson, Jonathan Lunine, Paulette Clancy	Membrane Alternatives in Worlds without Oxygen. Creation of an Azosome, 2015	187
<b>T</b> ... Tree of prelife	Martin A. Nowak and Hisashi Ohtsuki	Prevolutionary Dynamics and the Origin of Evolution, 2008	188
<b>S</b> ... Stardust	Lawrence M. Krauss	A Universe from Nothing, 2009	189
<b>T</b> ... Trees	Ali Smith	Artful, 2012	190
<b>O</b> ... Others	Rosi Braidotti	The Politics of Life Itself and New Ways of Dying, 2010	191

<b>A</b> ... Animal	W.J. T. Mitchell	The Rights of Things, 2003	192
<b>N</b> ... Nothing	Lawrence M. Krauss	A Universe from Nothing. Why There Is Something Rather than Nothing, 2012	193
<b>S</b> ... Shock waves	Akiva Bar-Nun	Shock Waves and the Origin of Life, 1977	194
<b>W</b> ... Weird life	David Toomey	Alien Life on Earth, 2013	199
<b>E</b> ... Extradimensional space	Dr. Martin Concoyle and G.P. Coatmundi	The Mathematical Structure of Stable Physical Systems, 2014	202
<b>R</b> ... Resurrection	The Bible	Luke 24:1–12, 80–100 AD	204
<b>T</b> ... Two rabbits	Daniel Koshland	The Seven Pillars of Life, 2002	205
<b>H</b> ... Hymns	Rig Veda	Book I, Hymn CXIII, 1500 BC	206
<b>I</b> ... Immortality	Stefano Piraino, Ferdinando Boero, Brigitte Aeschbach, Volker Schmid	Reversing the Life Cycle: Medusae Transforming into Polyps and Cell Transdifferentiation in <i>Turritopsis nutricula</i>	208
<b>S</b> ... Sorcery	Roland Littlewood and Chavannes Douyon	Clinical Findings in Three Cases of Zombification, 1997	209
<b>Q</b> ... Qi	Zhuangzi	Zhuangzi, 370–287 BC	211
<b>U</b> ... Urea	Jacob Berzelius and Friedrich Wöhler	Correspondence between J. Berzelius and F. Wöhler, 1828	212
<b>E</b> ... Ending	Plato	Phaedo, 360 BC	215
<b>S</b> ... Spock	Star Trek	Quote in: <i>What They Didn't Say: A Book of Misquotations</i> , 2006	216



<b>T</b> ... Tarantula	Charlotte Taylor	Spiders: Their Structure and Habits, 1860	217
<b>I</b> ... Insect	Jussi Parikka	Insect Media, 2010	218
<b>O</b> ... Oblique	Clarice Lispector	The Stream of Life, 1973	219
<b>N</b> ... Novelty	Alfred North Whitehead	Process and Reality, 1929	222
<b>B</b> ... Biochemical	Carl Sagan	Definitions of Life, 1970	223
<b>Y</b> ... You	Suely Rolnik	Despachos at the Museum: Who knows What May Happen .... 2000	224
<b>O</b> ... Occasional cousins	Isaac Asimov	Not as We Know it. The Chemistry of Life, 1981	225
<b>C</b> ... Cyborg	Donna Haraway	A Cyborg Manifesto. Science, Technology and Socialist-Feminism in the late Twentieth Century, 1991	226
<b>C</b> ... Capacity	N. Katherine Hayles	How We Became Posthuman. Virtual Bodies in Cybernetics, Literature, and Informatics, 1999	228
<b>I</b> ... I am the sun	Georges Bataille	Solar Anus, 1931	229
<b>D</b> ... Division	Paul Davies	The Fifth Miracle. The Search for the Origin and Meaning of Life, 2000	233
<b>E</b> ... Excess	Eugene Thacker	After Life, 2010	234
<b>N</b> ... Numbers	Nils Aall Barricelli	Numerical Testing of Evolution Theories, 1962	235
<b>T</b> ... Terra firma	Lynn Margulis and Dorion Sagan	What Is Life?, 1995	236

<b>A</b> ... Aging	EJ Stewart, R Madden, G Paul, F Taddei	Aging and Death in an Organism that Reproduces by Morphologically Symmetric Division, 2005	237
<b>L</b> ... Life's age	Alexei A. Sharov and Richard Gordon	Life Before Earth, 2013	239
<b>S</b> ... Star Wars	George Lucas	Quote in: The Meaning Of Life, Reflections in Words and Pictures on Why We are Here, 2007	240
<b>C</b> ... Contradiction	Georg Wilhelm Friedrich Hegel	The Science of Logic, 1817	241
<b>I</b> ... Impurity	Thomas Mann	The Magic Mountain, 1924	242
<b>E</b> ... Electronic bard	Stanislaw Lem	The First Sally (A), or Trurl's Electronic Bard, 1965	243
<b>N</b> ... Narcotics	Avital Ronell	Crack Wars: Literature, Addiction, Mania, 1992	252
<b>C</b> ... Corpse	Barbara Smuts, J. M. Coetzee, Marjorie Garber, Peter Singer, Wendy Doniger	The Lives of Animals, 1999	253
<b>E</b> ... Endocannibal- ism	Peggy Reeves Sanday	Divine Hunger: Cannibalism as a Cultural System, 1986	254
<b>S</b> ... Stakes	Cary Wolfe	Postscript: On "the Living", 2008	255
<b>A</b> ... Alien	Dan O'Bannon	Alien, 1979	256
<b>N</b> ... Nonorganic	Manuel DeLanda	Nonorganic Life, 1991	257
<b>D</b> ... Deathless	Boris Groys	Ilya Kabakov. The Man Who Flew into Space from his Apartment, 2006	259

<b>P</b>	... Panspermia	Svante Arrhenius	Worlds in the Making, 1908	261
<b>H</b>	... Handicap	Susanne Lundin	Creating Identity with Biotechnology: The Xenotransplanted Body as the Norm, 2002	262
<b>I</b>	... Inheritance	Annie Prud'homme-Généreux	What is Life? An Activity to Convey the Complexities of This Simple Question, 2013	263
<b>L</b>	... Lib	John Schad	Epilogue: Coming Back to Life, 2003	264
<b>O</b>	... Objects	Anne Sexton	The Room of My Life, 1960	265
<b>S</b>	... Secret	Karen Barad	Living in a Posthumanist Material World – Lessons from Schrödinger's Cat, 2008	266
<b>O</b>	... Occurrences	Hans Henry Jahnn	The Ship, 1936	267
<b>P</b>	... Persistence	Benedict de Spinoza	The Ethics (Ethica Ordine Geometrico Demonstrata), Part Three, 1677	268
<b>H</b>	... Holistic	Lisa Randall	Knocking On Heaven's Door: How Physics and Scientific Thinking Illuminate Our Universe, 2012	269
<b>I</b>	... Intelligence	Michael Pollan	The Intelligent Plant, 2013	270
<b>E</b>	... Ethics	Rebecca Skloot	Henrietta's Dance, 2000	272
<b>S</b>	... Symmetry	Marcus du Sautoy	Finding Moonshine: A Mathematician's Journey through Symmetry, 2008	274
<b>H</b>	... Haitian zombi	Maya Deren	Divine Horsemen: The Living Gods of Haiti, 1953	276
<b>A</b>	... Another Life	Yuval Noah Harari	Sapiens: A Brief History of Humankind, 2011	277
<b>V</b>	... Vivisection	H. G. Wells	The Island of Doctor Moreau, 1896	278

<b>E</b> ... Excuse	René Descartes	Animals are Machines, 1637	280
<b>P</b> ... Physiological	Carl Sagan	Definitions of Life, 1970	281
<b>R</b> ... Reproduction	Judith Roof	The Poetics of DNA, 2007	282
<b>O</b> ... Organic soup	William Martin, John Baross, Deborah Kelley, Michael J. Russell	Hydrothermal Vents and the Origin of Life, 2008	283
<b>V</b> ... Virus	Ulrich Kuhnt	Are Viruses Living Things?, 2008	285
<b>E</b> ... Everything	Fiston Mwanza Mujila	Poemes et Revasseries, 2008	287
<b>N</b> ... Non-linearity	Sanford Kwinter	Architectures of Time. Towards a Theory of the Event in Modernist Culture, 2002	288
<b>U</b> ... Undead	Rabindranath Tagore	The Living and the Dead, 1916	289
<b>N</b> ... Need of others	Zygmunt Bauman	Mortality, Immortality and Other Life Strategies, 1992	291
<b>S</b> ... Semiotics	Marcello Barbieri	Biosemitotics: A New Understanding of Life, 2010	292
<b>A</b> ... Agency	Karen Barad	Meeting the Universe Halfway: Quantum Physics and the Entangle- ments of Matter and Meaning, 2007	294
<b>T</b> ... Thermo- dynamic	Carl Sagan	Definitions of Life, 1970	295
<b>I</b> ... Intercourse	Anais Nin	Delta of Venus, 1939–1944	297
<b>S</b> ... Sex	Hilda Hilst	The Obscene Madame D, 1981	298

<b>F</b> ... Frankenstein	Mary Wollstonecraft Shelley	Frankenstein; or, The Modern Prometheus, 1818	299
<b>A</b> ... Artificial intelligence	Christopher G. Langton	Artificial Life, 1989	301
<b>C</b> ... Checklist	Evan Thompson	Mind in Life. Biology, Phenomenology, and the Science of Mind, 2007	302
<b>T</b> ... Terran life	National Research Council	"Front Matter." The Limits of Organic Life in Planetary Systems, 2007	304
<b>O</b> ... Order	Ilya Prigogine, Isabelle Stengers, Alvin Toffler	Order Out of Chaos. Man's New Dialogue With Nature, 1984	307
<b>R</b> ... Reassembly	Lygia Fagundes Telles	The Ants, 1978	308
<b>Y</b> ... Yearning	Simone de Beauvoir	The Ethics of Ambiguity, 1948	309