

# Bibliography

## References and Further Reading

- Abdou, K, Shehata, M, Choko, K, Nishisono, H, Matsuo, M, Muramatsu, S, and Inokuchi, K (2018) "Synapse-specific representation of the identity of overlapping memory engrams", *Science*, **360**:6394, pp 1227-1231
- Alkon, DL (1987) *Memory Traces in the Brain*, Cambridge University Press, Cambridge UK
- Alur, R. (2015) *Principles of Cyber-Physical Systems*, The MIT Press, Cambridge MA
- Anderson, WT (2004) *All Connected Now: Life in the First Global Civilization*, Westview Press, Boulder CO
- Arsenault, JS & Buchsbaum, BR (2015) "Distributed Neural Representations of Phonological Features during Speech Perception", *The Journal of Neuroscience*, January 14, 2015 **35**(2):634 – 642
- Ashby, WR (1958) "Requisite Variety and its implications for the control of complex systems", *Cybernetica*, Vol 1, No 2. Available on-line: <http://pespmc1.vub.ac.be/Books/AshbyReqVar.pdf>. Accessed 11/28/2016
- Baars, BJ & Gage, NM (eds.) (2007) *Cognition, Brain, and Consciousness: Introduction to Cognitive Neuroscience*, Elsevier, Boston MA
- Barabási, A-L (2003) *Linked: How Everything is Connected to Everything Else and What It Means for Business, Science, and Everyday Life*, Penguin Group, New York
- Beer, S (1959), *Cybernetics and Management*, English University Press, London UK
- \_\_\_\_\_ (1966) *Decision and Control: The Meaning of Operational Research and Management Cybernetics*, John Wiley & Sons, New York
- \_\_\_\_\_ (1972) *Brain of the Firm: A Development in Management Cybernetics*, Herder and Herder, New York
- Boulding, KJ (1956) "General Systems Theory – The Skeleton of Science", *Management Science*, 2, 197, Reprinted in Klir, 2001
- Bourke, AFG (2011) *Principles of Social Evolution*, Oxford University Press, Oxford UK
- Brennan, J (2016) *Against Democracy*, Princeton University Press, Princeton NJ
- Brodts, S., Gais, S., Beck, J., Erb, M., Scheffler, K., and Schonauer, M. (2018) "Fast track to the neocortex: A memory engram in the posterior parietal cortex", *Science*, **362**:6418, 30 November, 2018, pp 1045-1048
- Buller, DJ (2005) *Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature*, The MIT Press, Cambridge MA
- Burton, RA (2009) *On Being Certain: Believing You Are Right Even When You're Not*, St. Martin's Griffin, New York

- Calcott, B & Sterelny, K (eds. 2011) *The Major Transitions in Evolution Revisited*, The MIT Press, Cambridge MA
- Camazine, S, Deneubourg, J-L, Franks, NR, Sneyd, J, Theraulaz, G, Bonabeau, E (2001) *Self-Organization in Biological Systems*, Princeton University Press, Princeton NJ
- Capra, F (1975) *The Tao of Physics: An Exploration of the Parallels between Modern Physics and Eastern Mysticism*, Shambhala, Boston MA
- \_\_\_\_\_ (1982) *The Turning Point: Science, Society, and the Rising Culture*, Bantam Books, New York
- \_\_\_\_\_ (1996) *The Web of Life: A New Understanding of Living Systems*, Random House, New York
- \_\_\_\_\_ (2002) *The Hidden Connections: Integrating the Biological, Cognitive, and Social Dimensions of Life into a Science of Sustainability*, Doubleday, New York
- Capra, F & Luisi, PL (2014) *The Systems View of Life: A Unifying Vision*, Cambridge University Press, Cambridge, UK
- Carey, S (2009) *The Origin of Concepts*, Oxford University Press, Oxford
- Carroll, SB (2006) *Endless Forms Most Beautiful: The New Science of Evo Devo*, W. W. Norton & Company, New York
- \_\_\_\_\_ (2006) *The Making of the Fittest: DNA and the Ultimate Forensic Record of Evolution*, W.W. Norton & Company, New York
- Carroll, S (2016) *The Big Picture: On the Origins of Life, Meaning, and the Universe Itself*, Dutton, New York
- Casti, JL (1994) *Complex-ification: Explaining a Paradoxical World Through the Science of Surprise*, HarperCollins Publishers, New York
- Checkland, P (1999) *Systems Thinking, Systems Practice, Includes a 30-year Retrospective*, John Wiley & Sons, Ltd., Chichester UK
- Churchman CW, Ackoff, RL & Arnoff, EL (1957) *Introduction to Operations Research*, John Wiley and Sons, New York
- Churchman CW (1960) *Prediction and Optimal Decision*, Prentice Hall, Englewood Cliffs, New Jersey
- \_\_\_\_\_ (1968a) *Challenge to Reason*, McGraw-Hill, New York.
- \_\_\_\_\_ (1968b) *The Systems Approach*, Delacorte Press, New York.
- Coen, E (2012) *Cells to Civilizations: The Principles of Change that Shapes Life*, Princeton University Press, Princeton, NJ
- Costanza, R, Cumberland, J, Daly, H, Goodland, R, & Norgard, R (1997) *An Introduction to Ecological Economics*, St. Lucie Press, Boca Rotan FL
- Crist, E (2019) *Abundant Earth: Toward an Ecological Civilization*, University of Chicago Press, Chicago

- Crosby, AW (2007) *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy*, W. W. Norton & Company, New York
- Cuban, L (1999) *How Scholarship Trumped Teachers: Change Without Reform in University Curriculum, Teaching, and Research, 189-1990*, Teachers College Press, New York
- Daly, HE & Townsend, KN (1993) *Valuing the Earth: Economics, Ecology, Ethics*, The MIT Press, Cambridge MA
- Daly, HE & Farelly, J (2010) *Ecological Economics, Principles and Applications*, 2<sup>nd</sup> Ed., Island Press, Washington DC
- Damasio, AR (1994). *Descartes' Error: Emotion, Reason, and the Human Brain*, G.P. Putnum's Sons, New York
- Damasio, A (2000) *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, Mariner Books, New York.
- Deacon, TW. (1997) *The Symbolic Species: The Co-evolution of Language and the Brain*, W. W. Norton & Co., New York
- De Waal, F (2005). *Our Inner Ape*, The Berkley Publishing Group, New York.
- \_\_\_\_\_ (2010). *The Age of Empathy: Nature's Lessons for a Kinder Society*, Broadway Books, New York.
- \_\_\_\_\_ (2014). *The Bonobo and the Atheist: In Search of Humanism Among the Primates*, W.W. Norton & Company, New York.
- \_\_\_\_\_ (2016). *Are We Smart Enough to Know How Smart Animals Are?*, W.W. Norton & Company, New York
- Diamond, J (2005) *Collapse: How Societies Choose to Fail or Succeed*, Penguin Group, New York
- Donald, M (1991) *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition*, Harvard University Press, Cambridge, MA
- \_\_\_\_\_ (2001) *A Mind So Rare: The Evolution of Human Consciousness*, W.W. Norton & Co., New York
- Dretske, F. I. (1988). *Explaining Behavior: Reasons in a World of Causes*, MIT Press, Cambridge, MA
- Dunbar, RIM (1992). "Neocortex size as a constraint on group size in primates", *Journal of Human Evolution*, **22**:6, 469–493. doi:10.1016/0047-2484(92)90081-J
- Ehrlich, PR, & Ehrlich, AH (2002) *The Dominant Animal: Human Evolution and the Environment*, Island Press, Washington D.C
- Ferguson, N (2008) *The Ascent of Money: A Financial History of the World*, The Penguin Press, New York
- Findeisen, W, Bailey, FN, Brdys, M., Malinowski, K, Tatjewski, P & Wozniak, A (1980) *Control and Coordination in Hierarchical Systems*, John Wiley & Sons, New York.
- Fodor, Jerry (1975). *The Language of Thought*, Harvard University Press, Cambridge, MA.

- Flyvbjerg, B, Bruzelius, N, & Rothengatter, W (2003) *Megaprojects and Risks: Anatomy of Ambition*, Cambridge University Press, Cambridge UK.
- Ford, A (2010) *Modeling the Environment*, Island Press, Washington DC.
- Forrester, J (1961) *Industrial Dynamics*, Pegasus Communications, Waltham, MA.
- Fox, RF (1988) *Energy and the Evolution of Life*, W.H. Freeman & Company, New York
- Friendshuh, L & Troncale L (2012) “SoSPT I.: “Identifying Fundamental Systems Processes for a General Theory of Systems (GTS),” in *Proceedings of the 56th Annual Conference, International Society for the Systems Sciences (ISSS)*, July 15-20, San Jose State University
- Fuller, B (1968 ed.) *Operating Manual for Spaceship Earth*, University of Southern Illinois Press, Carbondale IL
- \_\_\_\_\_ (1970) *Utopia or Oblivion: The Prospects for Humanity*, Allen Lane, London
- \_\_\_\_\_ (1982 2<sup>nd</sup> ed.) *Critical Path*, St. Martin's Griffin (McMillan Press), New York
- Galbraith, JK (2014) *The End of Normal: The Great Crisis and the Future of Growth*, Simon & Schuster, New York
- Gazzaniga, MS (2005) *The Ethical Brain*, Dana Press, New York
- Geary, DC (2005) *The Origin of Mind: Evolution of Brain, Cognition, and General Intelligence*, American Psychological Association, Washington, DC
- Geiger, RL (2004) *Knowledge & Money: Research Universities and the Paradox of the Marketplace*, Stanford University Press, Stanford, CA
- Gilbert, D (2006) *Stumbling on Happiness*, Alfred A. Knopf, New York
- Gilovitch, T, Griffin, D, & Kahneman (2002) *Heuristics and Biases: The Psychology of Intuitive Judgment*, Cambridge University Press, Cambridge UK
- Gleick, J (1987) *Chaos: Making a New Science*, Penguin Books, New York
- Gordon, RJ (2016) *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War* (The Princeton Economic History of the Western World), Princeton University Press, Princeton, NJ
- Gould, SJ & Eldredge, N (1977) “Punctuated Equilibria: The Tempo and Mode of Evolution Reconsidered”, *Paleobiology*, pp. 115-151, Paleontological Society, Bethesda, MD
- Gribbin, J (2004) *Deep Simplicity*, Random House, New York
- Grinspoon, D (2016) *Earth in Human Hands*, Grand Central Publishing, New York
- Grisogono, A-M (2017) “(How) Did Information Emerge”, in Walker, Davis, & Ellis (2017), pp 61-96, Cambridge University Press, Cambridge UK
- Hall, CAS, Cleveland, CJ, & Kaufmann, R (1986) *Energy and Resource Quality: The Ecology of Economic Process*, John Wiley & Sons, New York
- Hall, CAS & Klitgaard, KA (2012) *Energy and the Wealth of Nations: Understanding the Biophysical Economy*, Springer, New York

- Hanson, JS & Olson, CR (eds. 1990) *Connectionist Modeling and Brain Function: The Developing Interface*, The MIT Press, Cambridge, MA.
- Hansson, SO (1994) *Decision Theory: A Brief Introduction*, Department of Philosophy and History of Technology, Royal Institute of Technology (KTH), Stockholm. Available: <https://web.archive.org/web/20060705052730/http://www.infra.kth.se/~soh/decisiontheory.pdf>. Accessed: 11/27/2016.
- Harari, YN (2011) *Sapiens: A Brief History of Humankind*, Vintage Books, London
- \_\_\_\_\_ (2017) *Homo Deus: A Brief History of Tomorrow*, HarperCollins Publishers, New York
- Harold, FM (2001) *The Way of the Cell*, Oxford University Press, Oxford UK
- Hartley, RVL (1928) "Transmission of Information", *Bell System Technical Journal*, Volume 7, Number 3, pp. 535–563, (July 1928)
- Harnad, S. (1990) "The Symbol Grounding Problem", in *Cogprints*, <http://cogprints.org/3106/>. Accessed 6/1/2017. Originally: *Physica D* **42**: 335-346
- Hawkins, J with Blakeslee, S. (2004) *On Intelligence*, Times Books/Henry Holt and Company, New York
- Heylighen, F, Rosseel, E, & Demeyere, F (Eds.) (1990) *Self-steering and Cognition in Complex Systems: Toward a New Cybernetics*, Gordon and Breach Science Publishers, New York.
- Hinton, GE, McClelland, JL, & Rumelhart, DE (1987) "Chapter 3, Distributed Representations" in *Parallel Distributed Processing, Vol. 1: Foundations*, Rumelhart, DE & McClelland, JL (Eds), The MIT Press, Cambridge MA
- Hodder, I (2012) *Entangled: An Archaeology of the Relationships between Humans and Things*, John Wiley & Sons, New York
- Holland, JH (1998) *Emergence: from Chaos to Order*, Addison-Wesely Publishing Company, Inc. Reading MA
- Holmgren, D (2002) *Permaculture: Principles and Pathways beyond Sustainability*, Holmgren Design Services, Hepburn, Victoria, AU
- Homer-Dixon, T (2006) *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*, Random House Canada, Ontario
- Hughes, TP (2004) *Human-Built World: How to Think About Technology and Culture*, The University of Chicago Press, Chicago
- Huth, A, Nishimoto, S, Vu, AT, & Gallant, J (2012) "A Continuous Semantic Space Describes the Representation of Thousands of Object and Action Categories across the Human Brain", *Neuron* **76**: 1210-1224, Elsevier, Inc. New York
- Ivnenko, VI (2009) *Decision Systems and Nonstochastic Randomness*, Springer, New York
- Jackson, T (2009) *Prosperity without Growth: Economics for a Finite Planet*, Earthscan, London UK
- Judd, SJ (1991) *Neural Network Design and the Complexity of Learning*, Bradford Books, New York

- Kahneman, D (2011). *Thinking Fast and Slow*, Farrar, Straus, and Giroux, New York
- Kauffman, S (1993) *The Origins of Order: Self-Organization and Selection in Evolution*, Oxford University Press, Oxford UK
- \_\_\_\_\_ (1995) *At Home in the Universe: The Search for the Laws of Self-Organization and Complexity*, Oxford University Press, Oxford UK
- \_\_\_\_\_ (2000) *Investigations*, Oxford University Press, Oxford UK
- Keen, S (2011) *Debunking Economics - Revised and Expanded Edition: The Naked Emperor Dethroned?*, Zed Publishing, New York
- Klein, N (2015) *This Changes Everything: Capitalism vs. Climate*, Simon & Schuster, New York
- Klir, GJ (2001) *Facets of Systems Science*, Second Edition, Kluwer Academic/Plenum Publishers, New York
- Kosko, B (1990) "Fuzziness vs. Probability", *Int. Journal of General Systems*, Vol. 17, pp 211-240
- Koestler, A (1967) *The Ghost in the Machine* (1990 reprint ed.). Penguin Group, New York.
- Koshland, DE (1980) *Bacterial Chemotaxis as a Model Behavioral System*. Raven Press, New York
- Kraus, N & Cheour, M (2000) "Speech Sound Representation in the Brain", *Audiol Neurootol* 2000; 5:140–150
- Krugman, P, Wells, R (2012) *Economics (3rd ed.)*, Worth Publishers. Duffield, UK
- Kuppers, B-O (1990) *Information and the Origin of Life*, The MIT Press, Cambridge MA
- Laszlo, E (2002) *The Systems View of the World: A Holistic Vision for Our Time*, Hampton Press, Inc., Cresskill, NJ
- LeDoux, J (2002) *Synaptic Self: How Our Brains Become Who We Are*, Viking, New York
- Leshem D (2016) *The Origins of Neoliberalism: Modeling the Economy from Jesus to Foucault*, Columbia University Press, New York
- Losos, JB (2017) *Improbable Destinies: Fate, Chance, and the Future of Evolution*, Riverhead Books, New York
- Lovelock, J.E.& Margulis, L. (1974). "Atmospheric homeostasis by and for the biosphere: the Gaia hypothesis". *Tellus. Series A*. Stockholm: International Meteorological Institute. **26** (1–2): 2–10.
- Mackintosh, NJ (1983) *Conditioning and Associative Learning*, Oxford University Press, Oxford UK
- Marcus, G (2008) *Kluge: The Haphazard Construction of the Human Mind*, Houghton Mifflin Co. New York
- Margulis L, Sagan D (2000) *What is Life?*, University of California Press, Los Angeles CA
- Marieke LS, Howarth C, & Attwell,D (2008) "The cortical energy needed for conscious perception", *Neuroimage*. 40(4): 1460–1468

- Maslow, A.H. (1943) "A theory of human motivation". *Psychological Review*. 50 (4): 370–96.
- Maynard Smith, J & Szathmáry, E (1995) *The Major Transitions in Evolution*, Oxford University Press, Oxford UK
- McGilchrist, I (2009) *The Master and His Emissary: The Divided Brain and the Making of the Western World*, Yale University Press, New Haven CT
- Meadows, DH, Meadows, DL, Randers, J, and Behrens III, WW (1972) *The Limits to Growth*, Potomac Associates, Washington DC. Available online at: <http://www.donellameadows.org/wp-content/userfiles/Limits-to-Growth-digital-scan-version.pdf>. Retrieved: 10/20/2016
- Meadows, DH, Randers, J, Meadows, DL (2004) *Limits to Growth: 30-Year Update*, Chelsea Green Publishing, White River Junction, VT
- Meuleman, L (2008) *Public Management and the Metagovernance of Hierarchies, Networks and Markets: The Feasibility of Designing and Managing Governance Style Combinations*, Springer, New York. ["how do successful public managers design and manage combinations of hierarchical, network and market governance? In other words: what is their rationale to apply metagovernance?"]
- Micklethwait, J & Wooldridge, A (2014) *The Fourth Revolution: The Global Race to Reinvent the State*, The Penguin Press, New York
- Miller, GA (1995). "WordNet: A Lexical Database for English", *Communications of the ACM* Vol. 38, No. 11: 39-41
- Miller, JG (1978) *Living Systems*, University of Colorado Press (1995 edition), Niwot, CO
- Miller, JH & Page, SE (2007) *Complex Adaptive Systems: An Introduction to Computational Models of Social Life*, Princeton University Press, Princeton NJ
- Minsky, M (1986) *The Society of Mind*, Simon & Schuster, New York.
- Mitchell, M (2009) *Complexity: A Guided Tour*, Oxford University Press, Oxford, UK
- Mithen, S (1996) *The Prehistory of the Mind: The Cognitive Origins of Art, Religion, and Science*, Thames and Hudson, London
- Mobus, GE (1994) "Toward a theory of learning and representing causal inferences in neural networks", in Levine, D.S. and Aparicio, M. (Eds.), *Neural Networks for Knowledge Representation and Inference*, Lawrence Erlbaum Associates Associates (now Taylor & Francis), New York
- Mobus, GE. & Fisher, P (1994) "MAVRIC's Brain", Technical Paper, University of North Texas and presented at *Seventh International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems IEA/AIE'94*, San Diego, CA. Available on-line: [http://faculty.washington.edu/gmobus/Mavric/MAVRICS\\_Brain\\_rev.html](http://faculty.washington.edu/gmobus/Mavric/MAVRICS_Brain_rev.html)
- 
- (1999) "Foraging Search at the Edge of Chaos", in D. Levine, V. R. Brown and V. T. Shirey (eds), *Oscillations in Neural Networks*, Lawrence Erlbaum Associates, Hillsdale, New Jersey. Available on-line: <http://faculty.washington.edu/gmobus/Mavric/chaos.html>

- Mobus, GE (1999) "Foraging Search: Prototypical Intelligence", *The Third International Conference on Computing Anticipatory Systems*, Liege, Belgium, August, 1999. Available on-line: <http://faculty.washington.edu/gmobus/ForagingSearch/Foraging.html>
- \_\_\_\_\_ (2000) "Adapting robot behavior to a nonstationary environment: a deeper biologically inspired model of neural processing". *Sensor Fusion and Decentralized Control in Robotic Systems III*, SPIE - International Society for Optical Engineering, Nov. 7, 2000, Boston, MA. Available on-line: <http://faculty.washington.edu/gmobus/Mavric/Nonstationary/spie-paper.html>
- \_\_\_\_\_ (2012). "The Evolution of Wisdom", *Science, Wisdom, and the Future: Humanity's Quest for a Flourishing Earth*, Collins Foundation Press, Santa Margarita, CA. pp 83-89.
- \_\_\_\_\_ (2017). "A Framework for Understanding and Achieving Sustainability of Complex Systems", *Systems Research and Behavioral Science*, **34**:5, John Wiley & Sons, Ltd, doi: 10.1002/sres.2482.
- \_\_\_\_\_ (2018) "A Systems-Based Architecture/Design for the Human Social System", *Systems Analysis in Economy*, Moscow Finance and Economics University, Moscow, ORCID: <https://orcid.org/0000-0001-8145-0908>
- \_\_\_\_\_ (2019) *A Theory of Sapience: Using Systems Science to Understand the Nature of Wisdom and the Human Mind*, Currently available online, hosted by The Millinium Alliance for Humanity and the Biosphere at Stanford University, <https://mahb.stanford.edu/library-item/theory-sapience-using-systems-science-understand-nature-wisdom-human-mind/> . Accessed 10/7/2019. In preparation for print edition.
- Mobus, GE & Kalton, MC (2014) *Principles of Systems Science*, Springer, New York.
- Mollison, B (1997), *Permaculture: A Designers' Manual*, Ten Speed Press, Berekley, CA
- Monod, J. (1971) *Chance and Necessity: An Essay on the Natural Philosophy of Modern Biology*, Alfred A. Knopf, New York
- Montgomery, DR (2007) *Dirt: The Erosion of Civilizations*, University of California Press, Berkeley CA
- Morowitz, HJ (1968) *Energy Flow in Biology*. Academic Press, Cambridge MA
- \_\_\_\_\_ (1992) *Beginnings of Cellular Life: Metabolism Recapitulates Biogenesis*. Yale University Press, New Haven CT
- \_\_\_\_\_ (2002) *The Emergence of Everything: How the World Became Complex*, Oxford University Press, Oxford UK.
- Newman, F, Couturier, L, & Scurry, J (2004) *The Future of Higher Education: Rhetoric, Reality, and the Risks of the Market*, Jossey-Bass, San Francisco CA
- Nicolis, G & Prigogine, I (1989) *Exploring Complexity: An Itrroduction*, W.H. Freeman & Company, New York
- Nissen, HJ, Damerow, P, & Englund, RK (1993) *Archaic Bookkeeping: Early Writing and Techniques of Economic Administration in the Ancient Near East*, The University of Chicago Press, Chicago

- Nowak, MA (2006) *Evolutionary Dynamics: Exploring the Equations of Life*, The Belknap Press, Cambridge MA
- Nowak, MA & Coakley, S, eds. (2013) *Evolution, Games, and God: The Principle of Cooperation*, Harvard University Press, Cambridge MA
- Odum, HT (1983) *Systems Ecology: An Introduction*, Wiley, New York
- \_\_\_\_\_ (1994, revised ed.) *Ecological and General Systems: An Introduction to Systems Ecology*, University Press of Colorado, Boulder CO
- \_\_\_\_\_ (2007) *Environment, Power, and Society for the Twenty-First Century: The Hierarchy of Energy*, Columbia University Press, New York
- Odum, HT & Odum, EC (2001) *A Prosperous Way Down: Principles and Policies*, University Press of Colorado, Boulder, CO
- Orr, DW (2004) *Earth in Mind: On Education, Environment, and the Human Prospect*, Island Press, Washington DC
- Pazzani, MJ (1990) *Creating a Memory of Causal Relationships*, Lawrence Erlbaum Associates, Hillsdale, NJ
- Pfeifer, R & Scheier, C (1999) *Understanding Intelligence*, The MIT Press, Cambridge MA
- Piketty, T (2014) *Capital in the Twenty-First Century*, (translated by Goldhammer, A), The Bellknap Press of Harvard University Press, Cambridge MA
- Pinker, S (1997) *How the Mind Works*, W. W. Norton & Company, New York
- Pinker, S (2002) *The Blank Slate: The Modern Denial of Human Nature*, Penguin Books (Paperback Ed.), New York
- Pinker, S (2007a) *The Language Instinct: How the Mind Creates Language*, Harper Perennial, New York
- Pinker, S (2007b) *The Stuff of Thought: Language as a Window into Human Nature*, Viking, New York
- Polanyi, K (2001 edition) *The Great Transformation: The Political and Economic Origins of Our Time*, Beacon Press, Boston
- Prandoni, P. & Vetterli, M. (2008) *Signal Processing for Communications*, EPFL Press, Lausanne, Switzerland. Available in .pdf at no cost: <http://www.sp4comm.org/>. Accessed: 8/13/2017
- Prigogine, I & Stengers, I (1984) *Order Out of Chaos: Man's New Dialogue with Nature*, Bantam New Age Books, New York
- Primack, JR & Abrams, NE (2006) *The View from the Center of the Universe*, Riverhead Books, New York
- Qualman, D (2019) *Civilization Critical: Energy, Food, Nature, and the Future*, Fernwood Publishing, Halifax
- Quinn, D (2000) *Beyond Civilization: Humanity's Next Great Adventure*, Broadway Books, New York

- Radzicki, MJ & Taylor, RA (2008) "Origin of System Dynamics: Jay W. Forrester and the History of System Dynamics". In: U.S. Department of Energy's Introduction to System Dynamics. <http://www.systemdynamics.org/DL-IntroSysDyn/start.htm>. Accessed 1/12/2017
- Reich, D (2018) *Who We Are and How We Got Here: Ancient DNA and the New Science of the Human Past*, Pantheon Books, New York
- Rhodes, FHT (2001) *The Creation of the Future: The Role of the American University*, Cornell University Press, Ithaca NY
- Rosen R (1985) *Anticipatory Systems: Philosophical, Mathematical and Methodological Foundations*, Pergamon Press, Oxford UK
- \_\_\_\_\_ (1991) *Life Itself*, Columbia University Press, New York
- Rothschild, M (1990) *Bionomics: Economy as Ecosystem*, Henry Holt and Company, New York
- Rousseau, D, Billingham, J, Wilby, J, and Blachfellner, S (2016) "In Search of General Systems Theory", *Systema* 4(1) Special Issue - General Systems Transdisciplinarity: 76-99.
- Rousseau, D, Wilby, J, Billingham, J, and Blachfellner, S (2018) *General Systemology*, Springer, New York
- Rumelhart DE & McClelland JL (1987) *Parallel Distributed Processing, Vol. 1: Foundations*, PDP Research Group, Bradford Books, The MIT Press, Cambridge MA
- Sawyer, RK (2005) *Social Emergence: Societies as Complex Systems*, Cambridge University Press, Cambridge UK
- Sayama, H (2015) *Introduction to the Modeling and Analysis of Complex Systems*, Open SUNY Textbooks, Geneseo, NY
- Scalaidhe, SPÓ, Wilson, FAW & Goldman-Rakic, PS (1999) "Face-selective Neurons During Passive Viewing and Working Memory Performance of Rhesus Monkeys: Evidence for Intrinsic Specialization of Neuronal Coding", *Cerebral Cortex*, Volume 9, Issue 5 Pp. 459-475
- Schneider, ED & Sagan, D (2005) *Into the Cool: Energy Flow, Thermodynamics, and Life*, University of Chicago Press, Chicago
- Schwarz, E (1997) "Toward a holistic cybernetics: from science through epistemology to being", *Cybernetics and Human Knowing*, 4, 17-50
- Schwarz, E. (1992) "A Generic Model for the Emergence and Evolution of Natural Systems toward Complexity and Autonomy", *Proceedings of the 36th Annual Meeting of the International Society of Systems Science*, Denver, Vol. II
- Scott, JC (2017) *Against the Grain: A Deep History of the Earliest States*, Yale University Press, New Haven
- Senge, P (2006) *The Fifth Discipline: The Art and Practice of the Learning Organization*, Second Edition, Doubleday, New York
- Shannon CE, Weaver W (1949). *The Mathematical Theory of Communication*. University of Illinois Press, Champaign, IL

- Simon, HA (1957) "A Behavioral Model of Rational Choice", in *Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting*. Wiley, New York
- \_\_\_\_\_ (1991) "Bounded Rationality and Organizational Learning", *Organization Science*, 2 (1): 125–134
- \_\_\_\_\_ (1998) *The Sciences of the Artificial, Third Edition*, The MIT Press, Cambridge MA.
- Smith, SW (1997) *The Scientist and Engineer's Guide to Digital Signal Processing*, California Technical Pub. California. Free, on-line version: <http://www.dspguide.com/>. Accessed 8/13/2017.
- Smith, E and Morowitz, HJ (2016) *The Origin and Nature of Life on Earth: The Emergence of the Fourth Geosphere*, Cambridge University Press, Cambridge UK
- Smolin, L (1997) *The Life of the Cosmos*, Oxford University Press, New York
- Sober, E & Wilson, DS (1998) *Unto Others: The Evolution and Psychology of Unselfish Behavior*, Harvard University Press, Cambridge MA
- Squire, LR & Kandel, ER (2009) *Memory: From Mind to Molecules* (Second Edition), Roberts & Company, Greenwood Village, CO
- Staddon, JER (2001) *Adaptive Dynamics: The Theoretical Analysis of Behavior*, The MIT Press, Cambridge MA
- Sternberg, RJ (ed.) (1990a) *Wisdom: Its Nature, Origins, and Development*, Cambridge University Press, New York.
- Sternberg, RJ (1990b) "Wisdom and its relations to intelligence and creativity", in Sternberg, Robert J. (ed.) (1990, pp 142 - 159).
- Streeck, W (2016) *How Will Capitalism End? Essays on a Failing System*, Vesro, New York
- Striedter, GF (2005) *Principles of Brain Evolution*, Sinauer Associates, Inc., Sunderland, MA.
- Seung, S (2013). *Connectome: How the Brain's Wiring Makes Us Who We Are*, Mariner Books, New York
- Sporns, O (2016). *Networks in the Brain*, The MIT Press, Cambridge MA
- Suddendorf, T (2013) *The Gap: The Science of What Separates Us from Other Animals*, Basic Books, New York
- Surowiecki, J (2004) *The Wisdom of Crowds*, Doubleday, New York
- Sutton RS & Barto, AG (2017) *Reinforcement Learning: An Introduction* (2<sup>nd</sup> Ed. In Draft), The MIT Press, Cambridge MA
- Tainter, JA (1988) *The Collapse of Complex Societies*, Cambridge University Press, Cambridge UK
- Taso, DY (2019) *Face Values*, Scientific American, 320:2, pp 22-29
- Tomasello, M (2014) *A Natural History of Human Thinking*, Harvard University Press, Cambridge MA
- \_\_\_\_\_ (2016), *A Natural History of Human Morality*, Harvard University Press, Cambridge MA

- \_\_\_\_\_ (2019), *Becoming Human: A Theory of Ontology*, Harvard University Press, Cambridge MA
- Troncale, L.R. (1978a) "Origins of Hierarchical Levels: An Emergent Evolutionary Process Based on Systems Concepts" In *Proceedings of the 22nd Annual Meeting of the Society for General Systems Research (SGSR)* (R. Ericson, Ed.) pp. 84 - 94. [Note: This Society has been renamed: International Society for Systems Science, ISSS]
- Troncale, L (1978b), "Linkage Propositions Between Fifty Principal Systems Concepts," in *Applied General Systems Research: Recent Developments and Trends: N.A.T.O. Conference Series II. Systems Science* (G. J. Klir, Ed.) Plenum Press, N.Y., pp. 29-52
- Troncale, L (1993) "Qualitative and Quantitative Research on Hierarchies as a Case Study of General Systems Research", *Ethical Management of Science as a System, 37th Annual Proceedings of the International Society for Systems Science*
- Troncale, L (2006) "Toward a Science of Systems", *Systems Research and Behavioral Science*, **23**, 301-321, Wiley Interscience  
<http://onlinelibrary.wiley.com/doi/10.1002/sres.729/abstract;jsessionid=A67D28A263EB8BE7D9E3A8F62ADBF27E.f03t01>. Accessed 7/13/2017
- Türke, R-E (2008), *Governance - Systemic Foundation and Framework*, Springer, New York
- Unger, RM, & Smolin, L (2015) *The Singular Universe and the Reality of Time*, Cambridge University Press, Cambridge UK
- Varela, F (1991) *The Embodied Mind*, MIT Press, Cambridge, MA.
- Vignieri, S & FahrenKamp-Uppenbrink, J (2017) "Ecosystem Earth", *Science*, 21 April, 2017, Volume 356, Issue 6335, p 258
- Volk, T (1995) *Metapatterns Across Space, Time, and Mind*, Columbia University Press, New York
- \_\_\_\_\_ (1998) *Gaia's Body: Toward a Physiology of Earth*, Springer-Verlag, New York
- \_\_\_\_\_ (2017) *Quarks to Culture: How We Came to Be*, Columbia University Press, New York
- von Bertalanffy, L (1968) *General System Theory: Foundations, Development, Applications*, George Braziller, New York
- von Foerster, H (1974) *Cybernetics of Cybernetics*, Urbana Illinois: University of Illinois. OCLC 245683481
- von Foerster, H (1981) *Observing Systems*, Intersystems Publications, Seaside, CA.
- von Foerster, H (2003) *Understanding Understanding: Essays on Cybernetics and Cognition*, Springer-Verlag, New York.
- von Neumann, J and Morgenstern, O (1944) *Theory of Games and Economic Behavior*, Princeton University Press, Princeton NJ.
- Walker, SI, Davies, PCW, & Ellis, GFR (2017) *From Matter to Life: Information and Causality*, Cambridge University Press, Cambridge UK
- Wallerstein, I (2004) *World-Systems Analysis: An Introduction*, Duke University Press, London UK

- Warfield, JN (2006) *An Introduction to Systems Science*, World Scientific Publishing Company, Singapore
- Washburn, J (2005) *University Inc.: The Corporate Corruption of Higher Education*, Basic Books, New York
- Westneat, DE & Fox, CW (2010) *Evolutionary Behavioral Ecology*, Oxford University Press, Oxford UK
- Wiener, N (1950) *The Human Use of Human Beings*, The Riverside Press (Houghton Mifflin Co.), New York
- Wiener, N (1961) *Cybernetics: Or the Control and Communication in the Animal and the Machine* 2nd ed., Martino Fine Books, Eastford, CT
- Wierzbicka A. & Goddard, C. (2014) *Words and Meanings: Lexical Semantics Across Domains, Languages and Cultures*, Oxford: Oxford University Press
- Wilson, DS & Sober, E (1994) "Reintroducing group selection to the human behavioral sciences". *Behavioral and Brain Sciences* 17 (4): 585–654
- Wilson, DS & Wilson, EO (2008). "Evolution 'for the good of the group'". *American Scientist* **96** (5): 380–389
- Wilson, EO (2013) *The Social Conquest of Earth*, Liveright, New York
- Wolf, M. (2012) *Computers as Components: Principles of Embedded Computing System Design*, Elsevier, New York
- Wolpert, D, Libby, E, Growchow, JA, & DeDeo, S (2017) "The Many Faces of State Space Compression", in Walker, Davies, & Ellis (eds, 2017), pp 199-243, Cambridge University Press, Cambridge UK
- Wymore, AW (1967) *A Mathematical Theory of Systems Engineering – The Elements*, John Wiley and Sons, Inc. New York