



SUB-THEME 6: NATURAL SCIENCE AND SUSTAINABLE BEHAVIORS

convenors:

David Wasieleski

Duquesne University, Pittsburgh, USA

Ernst Fehr

University of Zurich, Switzerland

objective:

To explore how natural science assumptions and models of behavior can inform social science research on motivating sustainability initiatives in organizations.

description:

The purpose of this sub-theme track is to explore how natural science assumptions and models of behavior can inform social science research on motivating sustainability initiatives in organizations. Current paradigms governing organizational research focus almost entirely on assumptions and theories associated with social science models of behavior. Theories are built around the “rationally self-interested” individual motivated by selfish, short-term profit interests. However, this does not provide the entire view of humans and their behavior. Practically, when enterprises move towards new strategic initiatives, they permit only a partial and selective understanding of the underlying issues of the initiatives. Corporate sustainability is subject to these restrictions. “Corporate sustainability and corporate social responsibility have been historically defined in restricted, instrumental, compliance-driven, and profit-oriented terms” (Shrivastava et al., 2013, p. 231). Often sustainability initiatives are framed in terms of the Triple Bottom Line (Elkington, 1997) involving the interaction of people, planet and profit. Given the normative undertones associated with this conception of sustainability, a productive dialogue involving business ethics and sustainability is necessary. To gain

a deeper understanding of what motivates sustainability behaviors is an important task for organizational scholars.

Reynolds and Ceranic (2009) recently observed that “the quantity and quality of knowledge that we have acquired about why individuals act ethically and unethically is incredibly low” (2). They go on to argue that empirical ethics researchers must make “significant changes in our overall approach to our research” in this area (3). (e.g., Reynolds, 2006; Salvador & Folger, 2009). This sub-track for ARTEM-OC explores the potential contribution to organizational ethics research in sustainability from a different lens to understanding human behavior: the natural sciences. Specifically, this track calls for submissions exploring insights from behavioral theories from the evolutionary biology, evolutionary psychology, cognitive neuroscience, and thermodynamics at various levels of analysis. In essence, evolutionary approaches provide a broader set of underlying assumptions concerning human behavior that in turn can be utilized in business ethics and sustainability research.

The goal in this track in keeping with other recent efforts to incorporate biological evolution into the organizational sciences (Frederick, 2012; Ilies, Arvey & Bouchard, 2006; Nicholson & White, 2006; Pierce & White, 1999; Saad, 2006) is to inform sustainability research of novel ways to motivate managerial and organizational behavior towards ecological initiatives. If human nature is profoundly affected by the evolutionary history of our species (Nicholson, 1998), it is reasonable to expect that evolutionary theories can provide clues into behavior within organizations.

Some biologists have suggested that evolutionary theories provide opportunity for business ethicists to understand and thus “fortify the other-oriented tendencies of human beings—our tendencies toward sympathy, reciprocity, and loyalty—and to counter our destructive tendencies, such as within-group violence and cheating” (Flack & de Waal, 2004: 23). The relevance of biological perspectives (including both the neurosciences and evolutionary theory) to morality is rooted in the belief that ethics in some way develops from the evolutionary forces present in human life (Fehr & Fischbacher, 2003; Fort, 2004). Evolutionary approaches provide the potential for a more integrated approach to understanding human behavior, in which socio-cultural phenomena are seen as arising from or influenced by natural selection pressures facing our ancient ancestors. Thus evolutionary approaches can take into account both nature and nurture. “Natural” perspectives on human behavior reflect both the social embeddedness and biological nature of individuals. Submissions to this track should seek to offer representative strategies for finding common ground between evolutionary and socio-cultural explanations of ethical/sustainable behavior in organizations.

keywords:

natural science, sustainability, business ethics, evolutionary biology, neuroscience, moral foundations theory.

references:

Bowles, S., Fehr, E., & Gintis, H. 2003. Strong reciprocity may evolve with our without group selection. Unpublished manuscript. Center for Empirical Economics, University of Zurich.

- Boyd, R., & Richardson, P. J. 1992. Punishment allows the evolution of cooperation (or anything else) in sizeable groups. *Ethnology and Sociobiology*, 13: 171-95.
- Cosmides, L., & Tooby, J. 1989. Evolutionary psychology and the generation of culture, part 2. *Ethnology and Sociobiology*, 10: 51-97.
- Cummins, D. D. 1999. Cheater detection is modified by social rank: The impact of dominance on the evolution of cognitive functions. *Evolution and Human Behavior*, 20: 229-48.
- Darwin, C. 1958 (orig. 1859). *The origin of species*. New York: New American Library.
- Dawkins, R. 1976. *The selfish gene*. Oxford: Oxford University Press.
- Falk, A., Fehr, E., & Fischbacher, U. 2002. Appropriating the commons: A theoretical explanation. In E. Ostrom, T. Dietz, N. Dolsak, P. Stern, S. Stonich, & E. Weber (Eds.). *The Drama of the Commons*. Washington, DC: National Academies Press.
- Fehr, E., & Fischbacher, U. 2003. The nature of human altruism. *Nature*, 425: 785-91.
- _. 2004. Third party punishment and social norms. *Evolution and Human Behavior*, 25: 63-87.
- _. 2005. Human altruism: Proximate patterns and evolutionary origins. *Analyse & Kritik*, 21: 6-47.
- Fehr, E., & Henrich, J. Forthcoming. Is strong reciprocity a maladaptation? On the evolutionary foundations of human altruism. In P. Hammerstein (Ed.), *The Genetic and Cultural Evolution of Cooperation*. Cambridge, MA: MIT Press.
- Fehr, E., & List, J. 2004. The hidden costs and returns of incentives: Trust and trustworthiness among CEOs. *Journal of the European Economic Association*, 2: 743-71.
- Fehr, E. & Tougareva, E. 1995. Do high monetary stakes remove reciprocal fairness? Experimental evidence from Russia. Mimeo. Institute for Empirical Economic Research, University of Zurich.
- Flack, J.C., & deWaal, F.B.M. 2004. Monkey business and business ethics: Evolutionary origins of human morality. In R. Edward Freeman & Patricia H. Werhane (Eds.), *Business, Science, and Ethics. The Ruffin Series No. 4*, 7-1. Charlottesville, VA: Society for Business Ethics.
- Fort, T. 2004. Biological contributions to business ethics. In R. Edward Freeman & Patricia H. Werhane (Eds.), *Business, Science, and Ethics. The Ruffin Series No. 4*, 81-91. Charlottesville, VA: Society for Business Ethics.
- Freeman, R. E., & Werhane, P. H. 2004. Introduction. In R. Edward Freeman & Patricia H. Werhane (Eds.), *Business, Science, and Ethics. The Ruffin Series No. 4*, 1-6. Charlottesville, VA: Society for Business Ethics.

Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., Cardenas, C., Gurven, M., Gwako, E., Henrich, N., Lesorogol, C., Marlowe, F., Tracer, D., & Ziker, J. 2006. Costly punishment across human societies. *Science*, 312: 1767-70.

Theoretical Biology, 208: 79-89. 614 *Business Ethics Quarterly*

Frooman, J. 1999. Stakeholder influence strategies. *Academy of Management Review*, 24(2): 191-205.

Futuyma, D. J. 1979. *Evolutionary biology*. Sunderland, MA: Sinauer Associates, Incorporated.

Gaulin, S. J.C., & McBurney, D. H. 2001. *Psychology: An evolutionary approach*. Upper Saddle River, NJ: Prentice Hall.

Gigerenzer, G., & Hug, K. 1992. Domain-specific reasoning: Social contracts, cheating, and perspective change. *Cognition*, 43(1992): 127-71.

Gintis, H. 2000. Strong reciprocity and human sociality. *Journal of Theoretical Biology*, 206(2): 169-79.

Gintis, H., Bowles, S., Boyd, R., & Fehr, E. 2003. Explaining altruistic behavior in humans. *Evolution and Human Behavior*, 24: 153-72.

Hull, D. L. 2002. History of evolutionary thought. In Mark Pagel (Ed.), *Encyclopedia of evolution*, 7-12. Oxford: Oxford University Press.

Jones, T. M. 1991. Ethical decision-making by individuals in organizations: An issue contingent model. *Academy of Management Review*, 16(2): 366-95.

Hies, R., Arvey, R. D., & Bouchard, T. J. 2006. Darwinism, behavioral genetics, and organizational behavior: A review and agenda for future research. *Journal of Organizational Behavior*, 21: 121-41.

Key, S. 1999. Toward a new theory of the firm A: critique of stakeholder theory. *Management Decision*, 37(4): 317-28.

Kurzban, R., McCabe, K., Smith, V. L., & Wilson, B. J. 2001. Incremental commitment and reciprocity in a real time public goods game. *Personnel and Social Psychology Bulletin*, 27(12): 1662-73.

Manktelow, K. 1999. *Reasoning and thinking*. East Sussex, UK: Psychology Press.

Maynard Smith, J., & Price, G. R. 1973. The logic of animal conflicts. *Nature*, 246: 13-18.

Nicholson, N. 1998. How hardwired is human behavior? *Harvard Business Review*, 76(4): 136-50.

Nicholson, N., & White, R. 2006. Darwinism: A new paradigm for organizational behavior? *Journal of Organizational Behavior*, 21: 111-19.

Pfeffer, J. 1997. New directions for organizational theory: Problems and prospects. Oxford: Oxford University Press.

Pierce, B.D., & White, R. 1999. The evolution of social structure: Why biology matters. *Academy of Management Review*, 24(4): 843-53.

Price, M., Tooby, J., & Cosmides, L. 2002. Punitive sentiment as an anti-free rider psychological device. *Evolution and Human Behavior*, 23: 203-31.

Rest, J. R. 1986. *Moral development: Advances in research and theory*. New York: Praeger.

Reynolds, S., 2006. A neurocognitive model of the ethical decision-making process. Implications for study and practice. *Journal of Applied Psychology*, 91: 737-48.

Reynolds, S. & Ceranic, T. L. 2007. The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. *Journal of Applied Psychology*, 92(6): 1610-24.

Ridley, M. 1985. *The problems of evolution*. Oxford: Oxford University Press.

Rowley, T., & Berman, S. 2000. A new brand of corporate social performance. *Business and Society*, 39: 397-418.

Rowley, T., & Moldoveanu, M. 2003. When will stakeholder groups act? An interest and identity-based model of stakeholder group mobilization. *Academy of Management Review*, 28: 204-19.

Saad, G. 2006. Applying evolutionary psychology in understanding the Darwinian roots of consumption phenomena. *Managerial and Decision Economics*, 27(2,3): 189-210.

Salvador, R., & Folger, R. G. 2009. Business ethics and the brain. *Business Ethics Quarterly*, 19: 1-31.

Smith, J.M. 1976. Group Selection. *Quarterly Review of Biology*, 51: 277-83.

Stone, Linda. 1997. *Kinship and gender*. Boulder, CO: Harper-Collins.

S. Gazzaniga (Ed.), *The Cognitive Neurosciences*, 1185-96. Cambridge, MA: MIT Press.

Tooby, J., Cosmides, L., & Price, M. E. 2006. Cognitive adaptations for person exchange: The evolutionary roots of organizational behavior. *Managerial and Decision Economics* (1971): 33-57.