

[CURRENT ISSUE](#)

[ARCHIVES \(2004-\)](#)

[ARCHIVES \(1996-
2004\)](#)

[MANUSCRIPT
SUBMISSION](#)

DARWIN AND ETHICS: USING NATURAL SELECTION TO UNDERSTAND ETHICAL BUSINESS AND ORGANIZATIONAL BEHAVIOR

By: **Shawn P. Daly, Minna Marita Mattila**

Introduction

The origins of ethics and morality have been considered for many, many years. From ancient Greek metaphysicians to the great theologians of the Middle Ages to modern philosophers, different systematic frameworks have been developed to understand how and why ethics are formed. These frameworks provide people and organizations with guidance about how to act toward other humans and institutions in their environment. Steiner and Steiner (1991) discuss six different primary sources for understanding the development of ethics: religious, philosophical, cultural, legal, codes of conduct, and genetics (see Table). Of these six systems, the genetic framework is clearly the least developed, least explored, and least utilized. This is especially true in terms of understanding ethical behavior of modern business people and organizations.

Thus, the purpose of this article is to examine the genetic (Darwinian) paradigm of ethical behavior in more detail. To do this, we will present a brief history of how the biological sciences and evolutionary thought has formulated a coherent view of the development of an ethical code of conduct. Next, the most recent development in this research stream – evolutionary psychology and social exchange – is used to connect the natural selection paradigm to the realm of business ethics and behavior. Empirical support and behavioral examples are given in both the

areas of inter-personal and inter-organizational ethics.

Table: Comparison of Ethical Systems

A Short History of Evolutionary Ethics

Maienschein and Ruse (1999) provide a wonderful collection of articles dedicated to describing the history of evolutionary ethics. In the first essay, Lennox (1999) examines how Aristotle sought to explain human virtue as the interaction between "practical intelligence" and nature. Ethics is explained as the discovery of what behaviors were useful and successful in everyday life. Aristotle also brought up the comparison with animals. That is, if humans have the capacity to adjust to the environment, must not animals? This train of thought, the maturation of ethics from animals to humans, became the focus of 17th and 18th century evolutionary thinking (Sloan 1999).

As Darwinism began to take shape, various biologist/philosophers, including Lamarck, Buffon, and St.-Pierre, came to the conclusion that this "biological transformism" must have started with plants and animals, achieving its ultimate form in humans (Sloan 1999). This ultimate formulation of virtue required both rationality and societal structures (language, education, and socialization). These philosophers argued that reason is crucial for the development of ethics because it allows for deviation from mere determinism. That is, ethics and virtue have no meaning when organisms behave solely in accordance with dictates from their biology (either genetic or autonomic systems).

Ethical philosophers in the 20th century were focussing on the societal component of building ethics (Farber 1999). This school of thought stated that the key element was the passing on of successful (virtuous) behavior from parents to children. In the view of Lanessan, the social prosperity of the higher social classes represents successful outcomes, and so the behavior of these classes needed to be emulated by all. Similarly, Nietzsche had his heroic view of human cultural evolution, through a competitive struggle between not only individuals, but also cultures and societies (Gayon 1999).

By the mid-20th century, Huxley argued that out of interactions between individuals and organizations, efficient and effective societies would be created for dealing with the economic and social problems of the day. Thus, there may be no absolute

standards, but only relative norms that arise in different situations and circumstances (Ruse 1999).

Evolutionary Psychology and Social Exchange

Unfortunately, this literature stops short of making a strong connection to business and organization ethics. The crucial "last" step of this research stream is the relatively recent development of the theory of evolutionary psychology. Tooby and Cosmides (1989) suggest an evocative logic for understanding the origins of cooperative behavior, a Darwinian adaptive process they have labeled evolutionary psychology. Cosmides and Tooby (1989) believe conditions in the Pleistocene era forced hunter-gatherers of this era to engage in social exchange. The essence of this social exchange is that self-oriented behavior must be balanced with altruistic behavior. In social exchange there is an implicit agreement between the actor and the other party that the actor will (at an unspecified time in an unspecified manner) receive a benefit for acting in the other party's interest.

But how do individuals determine if they are being treated fairly? Given the difficult circumstances of monitoring social exchange (due to differences in the timing and form of return benefit), significant management and monitoring problems are created. The nature of these information-processing problems in social exchange may have forced our ancestors to develop efficient mechanisms for optimizing cooperative social exchange. Cosmides and Tooby (1989) hypothesize that the optimal strategy may be to catch cheaters who fail to reciprocate their end of a social contract. In fact, the "logic" applied in catching cheaters breaks the laws of formal logic; that is, people use an intuitive sense of what is fair or honest in any given circumstance. The key element of the social exchange cheating logic is learning to infer a partner's intention to cheat.

In a series of experiments, Cosmides (1989) showed that the intuitive search for cheaters more accurately described the outcomes than other types of reasoning. Thus, Tooby and Cosmides (1989) suggest a Darwinian origin for the development of relational exchanges and the paradigm of monitoring exchange behavior by assessing the fairness of the partner's activities and actions. Fairness in exchange is measured by what is normal in a given society. Thus each society develops its own relational norms – its ethics. The group (or culture or species) succeeds by creating rules that promote its

continuation. Cooperation implies high degrees of altruism, which becomes the societal norm. Individuals who violate this norm are thrown out of the group and so are less likely to hunt and gather sufficient amounts of food to live and reproduce. Thus, individuals succeed (as measured by their ability in passing on their genes to the next generation) by obeying the rules of the group.

Business Ethics Applications

So what does the evolutionary psychology paradigm say about business ethics. Social exchange is at the very heart of both organizational behavior (transactional vs. relational leadership) and marketing science (facilitation of exchange). By dividing the arena of ethics into two categories, inter-personal and inter-organizational behavior, this partition allows us to examine not only the way individuals behave, but also the organizations and institutions within which they operate.

Personal Ethics

Managers use this highly refined sense (developed over thousands of years) for discovering cheating in their everyday business affairs. Executives need to understand the underlying level of cooperative intent of others, i.e., ethical behavior. This manifests itself in negotiations, burden sharing, and other strategic and tactical concerns, where managers can let their intuition catch "cheaters". By engaging in ethical behavior, managers put out signals that encourage others to engage in cooperative efforts. This allows the ethical manager to become in a wider range of inter-personal contacts and engage in potentially more valuable exchanges. In addition, the ethical manager avoids potential alarms put out by the finely honed "cheating discovery" skill.

These encouragements to cooperate and the development of teamwork within the organization are very much related to the development of leadership. In the leadership literature, the concept of transformational leadership (Bass 1985) is most easily connected to this discussion. In transformational leadership, the leader inspires the followers through concern for individual subordinates. Without consistency of purpose and action, plus the creation of an environment of trust, managers are unable to foster cooperation within the organization and so are more likely to fail (Hershey et al 1996).

Since a strong ethical grounding should cause managers to behave consistently and fairly toward their subordinates and others in the environment, one would expect that these managers should be better able to gain the cooperation of the employees. Thus, the ethical manager should succeed in organizational tasks and thereby rise in their organizations. In addition, as these individuals rise in their organizations, they should grow to value ethical behavior in themselves and others. This would likely lead to a situation where the selection process is also based on personal ethical attitudes and behaviors in organizations.

Unfortunately, there is very little data on the values/behaviors of leaders and its impact on organizational effectiveness and their rise in their organizations (Hall 1999, p. 140). One interesting empirical study that tends to confirm the connection between ethics and outcomes is that of Frese and Cadden (1999). Their survey of Quinnipiac College (USA) alumni found that the higher the respondent's rank or status in their organization, the more important they believed business ethics was for personal and institutional success. This association implies that the selection process for managers rewards ethical behavior.

Organizational Ethics

But how do organizations and institutions feel ethical selective pressure? As Friedman (1970) has so eloquently pointed out, the purpose of corporations is to make money. If we treat organizations as living organisms (Morgan 1996) which require the input of financial resources, then it is easy to imagine an environmental ecology developing. Organisms (organizations and institutions) which do not collect sufficient inputs from the environment eventually do not survive. Where do the inputs come from? Usually through interaction with other organizations in the environment. Appropriate outputs (goods and services) are rewarded by sufficient inputs (financial, technical, etc.).

Returning to the social exchange model, those firms that can develop superior outputs through cooperation (marketing channels, joint ventures, alliances, and networks) grow through increased inputs. Eventually, these organizations can out-compete the other firms. Moore (1996) talks about capturing territory and fighting for control of the ecosystem in the way of animal predators. Successful firms eventually are renewed in the struggle or die off as the environment changes around them.

Unfortunately, just as in our discussion of personal ethics above, there is little directly applicable research to examine the proposition that ethics leads to higher performance. However, evidence for the success of cooperative inter-firm behavior comes from a number of tangential sources. On an abstract level, there is the now-famous computer simulation (Axelrod and Hamilton 1981) where computer programs were pitted against one another in a series of "prisoner's dilemmas". That is, where cooperation was favored against self-oriented behavior. The winner of that competition: "tit-for-tat", a program that assumed the partner is acting in the collective interest and only retaliated after the partner acted in self-interest!

Less abstractly, support for the value of virtuous behavior comes from the rise of "relationship marketing". Relationship Marketing has become the dominant paradigm in the inter-firm relationship literature over the past 20 years. An accepted definition of relationship marketing is "those business activities which are aimed at increasing the mutual value of future transactions, but are detached from valuation within current transactions" (Daly 1997). As soon as the valuation is separated from the present transaction, then there is a degree of altruism involved. Thus we can think about ethics as the balance between (immediate) self-oriented behavior and (longer-term) altruism. This balance is the essence of cooperation between individuals, and especially among firms, given the very long time frames and wide geography over which firms often operate.

Why is the rise of relationship marketing important for ethics? It implies that the most successful firms are those which treat other firms fairly and equitably in a way that maximizes the value for all firms involved in the transaction. An anecdotal example of this phenomenon is the comparison between General Motors and the Ford Motor Company. General Motors is famous for its confrontational and (immediately) self-motivated behavior toward suppliers and other firms in the value chain. In contrast, Ford provides expertise and other resources to firms in its supplier network either free of charge or with only the most vague promise of future reward. Results: relationships with suppliers that have pushed Ford to become consistently the most profitable automobile manufacturer in the world, likely soon to pass GM as the largest as well. General Motors has seen a three-decade slump in market share and profitability and whose supply chain relationships are in tatters. Much of this success is often attributed to the supply chain management techniques

employed at Ford.

Utility and Practicality

The utility of this ethical system for practitioners is that the natural selection paradigm puts ethics in a simply understood form – behave "properly" or face extinction, either on a personal or organizational level. The concepts of norms, codes, and rules are very well developed in most schools of business, but they have often have limited impact on the thinking of practicing managers. Why? When one examines the other sources of ethics, the negative consequences of non-ethical behavior are often unimportant to many business people. Consider the negative consequences for unethical behavior in each system (see Table). To many executives, the reality of the negative consequences in each of the other ethical systems may be limited. The consequences may be considered either: very distant and abstract (religion, philosophy, and cultural), or be considered very unlikely (through the legal system and organizational censure).

But what of those (very commonly found) managers who do not fear the wrath of God, are unconcerned with the plight of their fellow man, don't care about society, and don't believe that either the law or their organizations really enforce ethics? It may be possible to convince these executives of "serious" consequences in the here and now – the crippling or extinction of their organization, along with the destruction or handicapping of their personal career. This makes teaching, mentoring, developing, and fostering ethical behavior much easier in the modern business world. This would be the true value of the natural selection paradigm in ethics today.

Conclusions

Historically, the natural selection paradigm has been far less developed than the other schools of thought, especially in terms of business and organization ethics. This paper has utilized evolutionary psychology to connect marketing and management science to ethics via the explicit connection of social exchange. Not only does evolutionary psychology help the study of ethical and cooperative behavior; it will also be beneficial in any research that claims exchange as its theoretical foundation. Two examples are given in this paper: organizational behavior (leadership) and inter-organizational behavior (marketing channels and supply chains). The division of behavior into

personal and organizational ethics is especially important considering that these two levels of ethics interact through the organizational codes of conduct and the institutional rule of law within which many individuals have to act. Which of course are in turn built through their individual actions.

But most importantly, one of the primary claims of a "modern-day" evolutionary ethics is that by acting morally or ethically, both individuals and organizations are more effective and successful. Clearly, there is much data collection and confirmatory work to be done before such a hypothesis can be accepted. But in the present work some associative and anecdotal evidence has been put forth to support this proposition. If in the future data could be generated which unequivocally demonstrated this effect, the natural selection system of ethics could clearly have great practical significance.

References

Axelrod, R., and Hamilton, W.D. (1981), "The Evolution of Cooperation", *Science*, pp.1390-1396.

Bass, B.M. (1985), *Leadership and Performance Beyond Expectations*, New York: The Free Press.

Cosmides, L. (1989), "The Logic of Social Exchange: Has Natural Selection Shaped How Humans Reason? Studies With the Wason Selection Test". *Cognition*, 31, 187-276.

----- and J. Tooby (1989), "Evolutionary Psychology and the Generation of Culture: II. Case Study: A Computational Theory of Social Exchange", *Ethology and Sociobiology*, 10, 51-97.

Daly, S.P. (1997), *What is Relationship Marketing? A Definition from Exchange Theory*, 1997 AMA Winter Marketing Educator's Conference Proceedings.

Farber, P.L. (1999), "French Evolutionary Ethics during the Third Republic", in *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Frese P. and D. Cadden (1999), "Practicing What We Preach: Using Management Principles and Techniques at Business Schools", *Institute of Business Administration and Technology 1999 International Conference*, Venice, Italy, July 7-12.

Friedman, M. (1970), "The Social Responsibility of Business Is to

Increase Its Profits", New York Times, September 13.

Gayon, J. (1999), "Nietsche and Darwin", in *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Hall, R.H. (1999), *Organizations: Structures, Processes, and Outcomes*, Upper Saddle River, NJ: Prentice Hall.

Hartman, L.P. (1998), *Perspectives in Business Ethics*, Chicago:McGraw-Hill.

Hershey, P., K. Blanchard, and D.E. Johnson (1996), *Management of Organizational Behavior: Utilizing Human Resources*, Upper Saddle River, NJ: Prentice-Hall.

Lennox, J.G. (1999), "Aristotle on the Biological Roots of Virtue: The Natural History of Natural Virtue", in *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Maienschein, J. and M. Ruse (1999), *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Moore, J.F. (1993), "Predators and Prey: A New Ecology of Competition", *Harvard Business Review*, May-June, 75-86.

Morgan, G. (1997), *Images of Organization*, Thousand Oaks, CA: Sage Publications.

Ruse, M. (1999), "Evolutionary Ethics in the Twentieth Century: Julian Sorell Huxley and George Gaylord Simpson", in *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Sloan, P.R. (1999), "From Natural Law to Evolutionary Ethics in Enlightenment Natural History", in *Biology and the Foundations of Ethics*, Cambridge, UK: Cambridge University Press.

Steiner, G.A. and J.F. Steiner (1991), *Business, Government, and Society: A Managerial Perspective*, New York: McGraw-Hill.