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'First, Kill All the Economists...': The Insufficiency of Microeconomics and the Need for Evolutionary Psychology in the Study of Management

Introduction to the Special Issue

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Microeconomics and its model of the singular and unitary actor can no longer adequately explain organizational behavior now that there are men and women in corporations. Evolutionary psychology, with its premise of fundamental and inherent sex differences, is necessary to replace microeconomics as the predominant theoretical perspective in business and management schools. The recent Safeway fiasco illustrates the danger of continuing to use microeconomics in the study of management in the 21st century. Copyright © 2006 John Wiley & Sons, Ltd.

INTRODUCTION

In North America, and increasingly in the United Kingdom and Europe, the business and management school is the primary location where academic research on organizational behavior takes place. As a result, this is where the business community turns for advice, consultation, and planning. Business school faculty conduct basic scientific research and produce knowledge, which

entrepreneurs and managers can then use to run their firms and organizations. Entrepreneurs and managers are thus heavily dependent on the research and basic knowledge produced in business schools.

For many years, economists have dominated the faculty of business and management schools. While there are a few sociologists, psychologists and other social scientists, most faculty members in business and management schools are economists and those trained in fields such as accounting, finance, marketing and business administration, which heavily derive from economics. I know of no biologists or zoologists teaching in a business school, for example.

Neo-classical microeconomics, the basic theoretical paradigm for the study of micro organizational behavior, relies on the model of *the actor*. In microeconomics, the actor is presumed to be *singular* and *unitary*; there is only one type of

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[†]The title is of course a play on the popularized version of the Shakespearean line 'The first thing we do, let's kill all the lawyers' in *Henry VI* (Part 2, Act 4, Scene 2). I am in no way advocating actual murders. Some of my friends are economists. Actually, many. It would suffice merely to replace the economists in their business school jobs with evolutionary psychologists.

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actor, the rational actor, *Homo economicus*. All actors in microeconomic models are presumed to be interchangeable. Given identical preferences and faced with identical set of choices, all rational actors make the identical choice. However, microeconomics itself cannot explain the actor's preferences (Stigler and Becker, 1977) and must make assumptions about them, such as wealth or income maximization. As a result, individual actors' behavior in microeconomic models becomes a function of the available choice set and external constraints they face. All actors are assumed to have identical preferences.

The microeconomic model of the singular and unitary actor may have sufficed in the old days, when mostly men populated organizations as managers and employees, and most economic actors (buyers, sellers, principals, agents) were men. Despite some individual idiosyncrasies, most men are more or less the same or at least their individual differences can be modeled and explained as a function of their measurable attributes (such as their age, endowments, or risk-aversiveness). At least their preferences can be assumed to be more or less the same; all men prefer more money to less.

This is not the case any longer. There are men and women in corporations (Kanter, 1977), and women comprise important economic actors occupying virtually all roles that only men traditionally and hitherto played. Relying on the model of the singular and unitary actor, however, microeconomics is unable to differentiate between men and women and instead assumes that they are the same. The singular and unitary actor must simultaneously be male and female. The model of the singular and unitary actor is blind to the possibility that men and women may be *fundamentally*, *inherently*, and *irreconcilably* different.

An exemplar of the microeconomic model of the singular and unitary actor is the recent book *Happiness: Lessons from a New Science* (Layard, 2005), by the distinguished economist (and my LSE colleague) Professor Lord Layard. The book begins with a paradox: Why have people in nations like the United States, the United Kingdom and Japan become no happier in the last half century as the average real incomes have more than doubled? Throughout the book, Layard refers to what makes *individuals* or *people* happy. He devotes only a small section (pp. 82–85) of the book discussing men and women separately, and,

in a book full of figures and graphs, has only one table (p. 85) which presents statistics separately by the sex, both to make the point that men and women should be and are the same. For example, his table shows that, both in 1973–1975 and in 1996–1998, roughly the same proportion of men as women describe their marriage as 'very happy' in the United States. While, admittedly, Layard's book is not principally about sex differences in happiness, the notion that different factors may contribute to men's and women's happiness, and, in particular, the possibility that more money may not necessarily make women happier (Kanazawa, 2004), does not figure prominently into this otherwise important book on an important topic.

Unfortunately, the microeconomic tendency to employ the model of the singular and unitary actor infects even economists who employ evolutionary (as opposed to evolutionary psychological) theory. Huck et al. (2005) specifically rely on evolutionary theory to explain the widely-observed 'endowment effect,' whereby individuals demand more to give up an object than they are willing to spend to acquire it. Huck et al. (2005) argue that individuals who had a tendency toward endowment effect had an advantage over those who did not in bilateral exchange during human evolutionary history because they could genuinely demand and get more for their assets. Natural selection would thus favor such a tendency. Yet, even in this specifically evolutionary work, Huck et al.'s (2005, p. 694) model states: 'There are two types of individuals, those who have an endowment of x only, the 'x-owners,' and those with an endowment of y, the 'y-owners.' They do not specify four types of actors: male x-owners, male y-owners, female x-owners, and female y-owners. Whether there are sex differences in endowment effect is immaterial; what is remarkable is their default assumption of the singular and unitary actor (no distinction between men and women), characterized only by the type of endowment. Their model therefore explicitly assumes male x-owners and female *x*-owners would behave the same.

The inadequacy of the microeconomics is apparent in its inability of explain, let alone solve, new and persistent problems in the corporate world, such as the problem of the 'glass ceiling,' sex gap in pay, occupational sex segregation, and sexual harassment. Why are there so few female top executives in large corporations when there are no formal barriers for women to occupy these jobs

and despite many corporations' concerted effort to hire female executives? Why do women earn less than men if, as microeconomics assumes, men and women are equally motivated to earn money? Why do men and women consistently choose different occupations, resulting in 'male' and 'female' occupations, in which holders are predominantly of one sex or the other, when there are no legal restrictions for men and women to enter and hold any occupation? Why is sexual harassment so persistent and widespread in the modern work-place?

Evolutionary psychology begins with the premise of fundamental and inherent differences between men and women. In areas of life during the human evolutionary history where men and women faced similar adaptive problems and thus natural selection was operative (such as procurement of food, protection from the elements, avoidance of predation), men and women share the same evolved psychological mechanisms comprising truly universal human nature. In areas of life where men and women faced different adaptive problems during evolutionary history and thus sexual selection was operative (such as intrasexual competition, finding and keeping mates, making parental investment), men and women have evolved distinct psychological adaptations, and therefore have distinct male and female natures. It is where actors execute their sexually-dimorphic psychological mechanisms, in distinct male or female human nature, that microeconomic model of the singular and unitary actor fails and evolutionary psychology prevails. Most importantly, evolutionary psychology can provide a metatheoretical framework within which to explain the origins of preferences, values, desires and emotions (Kanazawa, 2001).

For example, evolutionary psychological theories can explain the existence (or lack thereof) of the putative 'glass ceiling' by pointing out that senior corporate executive posts often demand a large number of personal sacrifices which many women are not willing to make (Browne, 1995; Still, this issue). Without assuming that men and women on the whole have identical preferences, evolutionary psychology can explain why the sex gap in pay exists and women on average make less than men do; women have better things to do than earn money (Kanazawa, 2005). In free market economy like the United States, both men and women choose to take occupations that best suit

their temperament. Because men and women on average have different preferences, temperaments and abilities, they tend to occupy different jobs (Browne, 1998, 2002). From the evolutionary psychological perspective, 'sexual harassment' is the unfortunate outcome of the sex differences in mating strategies, where men are far more interested in a large number of casual sex partners than women are (Buss and Schmitt, 1993). Browne (1997, p. 75; this issue) makes an astute observation in this connection.

Although sexual harassment surveys typically ask whether the respondent has ever been subjected to unwanted sexual advances in the workplace, they seldom, if ever, ask whether she has been subjected to *welcome* sexual advances. The answer must commonly be in the affirmative, since large numbers of workers find their romantic partners at work.

In other words, men's and women's behavior that sometimes results in 'sexual harassment' is just part of the normal repertoire of human mating strategies. They work well most of the time (as when a large number of men and women find satisfactory long-term and short-term mates in the workplace), but occasionally result in miscommunication and misunderstanding which are then given the label 'sexual harassment.' The current sexual harassment policy commonly practiced in many American organizations, which categorically prohibits any sexual relations between and among their employees, is therefore detrimental to women's interest as much as to men's.

In every case, evolutionary psychology obviates the need to posit the existence of systematic discrimination, 'patriarchal forces,' or any other factor external to the actor to explain the sexually-dimorphic outcomes in the modern corporation, where men and women behave differently. For example, in stark contrast to the microeconomic model of the singular and unitary actor, Browne (1997, this issue) specifically argues, in his discussion of the court's judgment of sexual harassment cases, that there is no such thing as a 'reasonable person' (invoked in the determination of whether a particular work environment constitutes a 'hostile work environment' to the 'reasonable person'); he instead argues that there are only 'reasonable woman' and 'reasonable man.' Men and women behave differently because 98 S. KANAZAWA

they are fundamentally, inherently, and irreconcilably different. Evolutionary psychology can explain sex differences in behavior and organizational outcomes in terms of the innate differences between men and women. The microeconomic model of the singular and unitary actor fails to capture these fundamental and inherent sex differences.

THE SAFEWAY FIASCO

Perhaps no other recent event in the corporate world underscores the failure of the microeconomics and the need for evolutionary psychology more sharply than what happened to the American supermarket chain Safeway (which is unrelated to the British supermarket chain of the same name and similar logo, which has recently been acquired by the rival chain Morrisons). In January 1998, Safeway started implementing what it called the 'superior customer service policy,' which required all Safeway employees to look customers in the eye and smile (Liedtke, 2000; Pate, 2001; Ream, 2000). If the customer paid by check or credit card, cashiers were required quickly to scan the customer's last name and thank them by their last name, as in 'Thank you, Mr. so-and-so, for shopping at Safeway,' while looking at them in the eye and smiling.

I suspect Safeway's 'superior customer service policy' was invented by some management consultant with an MBA from a leading business school. True to the microeconomic model of the singular and unitary actor dominant in business schools, the Safeway's policy makes no distinction between the sexes. In the policy, there are no men and women, only employees and customers. It requires both male and female employees to greet both male and female customers in the identical, 'friendly' manner.

As it turns out, the policy worked very well roughly three-quarters of the time, between a male employee and a male customer, between a male employee and a female customer, and between a female employee and a female customer. However, the policy backfired when the employee was female and the customer was male. When the female employee gazed deeply into his eye, smiled and thanked him by his name, the male customer 'naturally' assumed that she was attracted to him,

and started harassing her by following her around on and off work. Eventually, five female employees had to file a Federal sex discrimination charge against Safeway to force it to stop this policy, which the supermarket chain did when it reached an out-of-court settlement.

This fiasco was an embarrassing and expensive episode for Safeway. It could have been avoided entirely had the management consultant who devised the 'superior customer service policy' had any knowledge of evolutionary psychology. Any evolutionary psychologist could have predicted that Safeway's new customer service policy was a disaster in the making.

Haselton and Buss' (2000; Haselton, 2003) error management theory can tell us why. Their theory begins with an observation, made earlier by others (Yamagishi et al., 1999), that decision-making under uncertainty often results in erroneous inferences, but some errors are more costly in their consequences than others. Natural and sexual selection should then favor the evolution of inference systems that minimize the total *cost* of errors, rather than their total number. For instance, if a man must infer the sexual interest of a woman whom he encounters, he can make two types of errors: He can infer that she is sexually interested when she is not (false positive or Type I error), or he can infer that she is not sexually interested when she is (false negative or Type II error). What are the consequences of each type of errors?

The consequence of a Type I error, thinking that she is interested when she is not, is that he would be turned down, maybe laughed at, possibly slapped in the face. The consequence of a Type II error, thinking that she is not interested when she is, is a missed opportunity for copulation and to increase his reproductive success. The latter cost is far greater than the former. Thus men should be selected to possess a cognitive bias which leads them constantly to overinfer women's sexual interest.

Haselton and Buss' error management theory not only explains previously-known phenomena, such as a laboratory experiment demonstrating that men, both as participants and observers, overinfer women's sexual interest than women do (Abbey, 1982), or the Safeway fiasco, but also leads to two novel predictions. First, women should underinfer men's romantic commitment to them, because the cost of a Type I error

(thinking that a man is romantically committed to her when he is not, getting pregnant by him, then having him desert, and having to raise the child alone) is far greater than the cost of a Type II error (thinking that he is not romantically committed to her when he is, and missing an opportunity to form a committed romantic relationship with him). Second, men's tendency to overinfer women's sexual interest should not apply to their sisters, because men need to perceive their sisters' sexual interest in men accurately, so that they can protect the sisters in case they encounter unwelcome sexual advances from men. In other words, men's cognitive bias to overinfer women's sexual interest is not blind or unqualified; it is only activated in encounters with women with whom they might conceivably have sex. Haselton and Buss' (2000) studies confirm both of these novel predictions.

I draw two conclusions from the Safeway fiasco. First, reliant as it is on the microeconomic model of the singular and unitary actor, economists and their students would not have been able to predict sexually divergent reaction to the 'superior customer service policy' among the Safeway employees and customers. And they would not have been able to construct anything like the error management theory. (Note that the policy would not have caused any problem if all the employees had been men or all the customers women, as they would have been 50 years ago.) Second, evolutionary psychology, with its premise of the fundamental and inherent sex differences, is necessary to predict and possibly avoid another Safeway fiasco in the latter 20th century, let alone the 21st.

IN THIS ISSUE

I hope that this special issue of *Managerial and Decision Economics* on evolutionary psychology and management begins a shift in the research and teaching in business and management schools throughout the world, away from the economic monopoly toward a greater emphasis on evolutionary psychology. The articles contained in this issue represent various ways in which evolutionary psychology can contribute toward the study of management. I am particularly delighted that the contributors to this issue include Leda Cosmides, John Tooby, and David M. Buss, whom, along

with Martin Daly and Margo Wilson, I consider to be the Deans of Modern Evolutionary Psychology.

Evolutionary psychology is a very rapidly growing field. The swift and enormous growth of evolutionary psychology in recent years is apparent from two features of this special issue. In 1998, when the last special issue of *Managerial and Decision Economics* on evolutionary psychology (Markóczy, 1998) appeared, mere eight years ago (a blink of an eye in the history of social sciences), I (the guest editor of the current special issue) had not published my first evolutionary psychological paper yet. And of all the contributors to the 1998 special issue, only one (Kingsley R. Browne) makes a repeat appearance in the current issue.

In a major theoretical statement, John Tooby and Leda Cosmides, with Michael E. Price, extend their classic paper 'Cognitive Adaptations for Social Exchange' (Cosmides and Tooby, 1992) from two-person exchange to *n*-person exchange. In 'Cognitive Adaptations for *n*-Person Exchange: The Evolutionary Roots of Organizational Behavior,' Tooby, Cosmides and Price argue that the psychological mechanisms which discourage freeriders in collective action evolved out of cognitive and emotional adaptations originally designed for dyadic exchange, and evolved with the frequency of such collective action in the human evolutionary history. Their theory therefore presents an evolutionary psychological challenge to microeconomic discussion of solutions to the collective action problem.

In 'Envy and Positional Bias in the Evolutionary Psychology of Management,' Sarah E. Hill and David M. Buss discuss the evolutionary origins of two common emotions in organizational life: positional bias (judgment of success relative to a reference group) and envy (which motivates acquisition of resources or status possessed by others). Their two studies confirm the existence of these psychological mechanisms and support specific hypotheses about their functioning. Their article nicely illustrates my point about the advantage of evolutionary psychology over microeconomics in being able to derive and confirm specific hypotheses about sex differences in behavior.

In his contribution to the 1998 special issue of *MDE* (Markóczy, 1998), Kingsley R. Browne discusses his work on the sex gap in earnings and the so-called 'glass ceiling' on women's

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achievement in organizations. This time around, Browne provides an overview of his work on sexual harassment in modern organizations. He discusses the two types of 'sexual harassment,' the *quid pro quo* and the hostile environment, and provides critiques of the legal definitions and the judicial treatment of both from the evolutionary psychological perspective. As I mention earlier, Browne echoes my call for the abandonment of the microeconomic model of the singular and unitary actor when he points out that there is no 'reasonable person,' only 'reasonable man' and 'reasonable woman.'

Mary C. Still's article, 'The Opt-Out Revolution in the United States: Implications for Modern Organization,' is an evolutionary psychological critique of the work-family policies of many American corporations, which have led many female executives to drop out of the workforce altogether. She notes that the ignorance of inherent sex differences in preferences and values have led to adverse consequences for American corporations and their female executives. The so-called 'opt out revolution' may be yet another manifestation, like the Safeway fiasco, of the microeconomic model of the singular and unitary actor which assumes that men and women are identical.

In 'Explaining Clustering in Social Networks: Towards an Evolutionary Theory of Cascading Benefits,' Sheen S. Levine and Robert Kurzban provide an evolutionary psychological foundations of network theory, another prominent (and very successful) theoretical perspective which relies on the model of the unitary and singular actor, reducing all actors (individual and corporate) to 'nodes' characterized only by their network connections. Levine and Kurzban's paper begins to introduce evolutionary psychological principles in order to explain some peculiar features of social networks, such as clustering and cascading benefits.

Gad Saad introduces an evolutionary psychological perspective on consumer behavior in his article 'Applying Evolutionary Psychology in Understanding the Darwinian Roots of Consumption Phenomena.' He suggests that evolutionary psychology can provide a theoretical unity to the field of consumer research and a source of ultimate explanations for the consumer behavior, while scholars in this field have mostly concentrated on its proximate explanations. Saad reminds us that

evolutionary psychological explanations of ultimate causes of human behavior may not conflict with more traditional explanations of proximate causes. One does not have to be false in order for the other to be true; in fact, both are necessary for any complete explanation.

Chulguen Yang, Geeta C. D'Souza, Ashwini S. Bapat, and Stephen M. Colarelli present a comparative analysis of Affirmative Action programs in six different countries (India, United States, Malaysia, Canada, South Africa, and Brazil) and discuss commonalities and differences among them both from historical and evolutionary psychological perspectives. Theirs is a rare example of evolutionary psychological work which focuses, not on the more common sex differences in behavior, but on interracial and interethnic relations. Yang et al. make a very astute observation that Affirmative Action programs currently exist only in former colonies, not in former imperial powers, and, further, with the sole exception of Brazil, only in former British colonies. I would personally love to see an explanation (evolutionary psychological or otherwise) of this very peculiar pattern.

In 'Balancing Cooperation and Competition in Human Groups: The Role of Emotional Algorithms and Evolution,' Christoph H. Loch, D. Charles Galunic, and Susan Schneider discuss the role of emotional algorithms in promoting cooperation and competition in organizations. They argue that cooperation emerges when the emotional algorithms promoting a collective identity ('we') prevail, while competition results when the emotional algorithms promoting an individual identity ('me') dominate. Their work also exemplifies a very productive application of Sober and Wilson's (1998; Wilson and Sober, 1994) multilevel selection theory, which in my mind has not received its due recognition.

I am blessed and honored as Guest Editor to be able to include a collection of articles of such high caliber in this special issue of *MDE* on evolutionary psychology and management. I hope their quality and wide range of application serve as testimony to the utility of evolutionary psychology for the study of organization and management (as for the study of human behavior in general). I am particularly delighted to note that, while most authors in this special issue are based in the United States, they nonetheless represent six different countries on three separate continents.

I trust that eight years will not pass before the next special issue of *MDE* on evolutionary psychology's contribution to managerial and decision economics.

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NOTES

1. At the 17th annual conference of the Human Behavior and Evolution Society (the main academic organization of evolutionary psychologists) held in Berlin in 2004, the then HBES president Bobbi S. Low remarked that the number of people who were on the program committee which successfully planned and organized the Berlin conference in 2004 was larger than the entire group of people who originally gathered two decades earlier to form an academic organization which later became HBES. Many attendees of these early meetings slept on the floor of Low's house when they met at the University of Michigan in the 1980s (Low, personal communication); the 2005 HBES meetings were held in the Hyatt Regency, in Austin, TX, with nearly 500 participants. I have a feeling that 500 house guests would have stretched even Low's enormous hospitality.

REFERENCES

- Abbey A. 1982. Sex differences in attributions for friendly behavior: do males misperceive females' friendliness? *Journal of Personality and Social Psychology* **42**: 830–838.
- Browne KR. 1995. Sex and temperament in modern society: a Darwinian view of the glass ceiling and the gender gap. *Arizona Law Review* 37: 971–1106.
- Browne KR. 1997. An evolutionary perspective on sexual harassment: seeking roots in biology rather than ideology. *Journal of Contemporary Legal Issues* 8: 5–77.
- Browne KR. 1998. Divided Labours: An Evolutionary View of Women at Work. Weidenfeld and Nicolson: London
- Browne KR. 2002. *Biology at Work: Rethinking Sexual Equality*. Rutgers University Press: New Brunswick.

- Buss DM, Schmitt DP. 1993. Sexual strategies theory: an evolutionary perspective on human mating. *Psychological Review* **100**: 204–232.
- Cosmides L, Tooby J. 1992. Cognitive adaptations for social exchange. In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, Barkow JH, Cosmides L, Tooby J (eds). Oxford University Press: New York; 163–228.
- Haselton MG. 2003. The sexual overperception bias: evidence of a systematic bias in men from a survey of naturally occurring events. *Journal of Research in Personality* 37: 34–47.
- Haselton MG, Buss DM. 2000. Error management theory: a new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology* 78: 81–91
- Huck S, Kirchsteiger G, Jörg Oechssler J. 2005. Learning to like what you have—explaining the endowment effect. *Economic Journal* **115**: 689–702.
- Kanazawa S. 2001. De gustibus *est* disputandum. *Social Forces* **79**: 1131–1163.
- Kanazawa S. 2004. Social sciences are branches of biology. Socio-Economic Review 2: 371–390.
- Kanazawa S. 2005. Is 'discrimination' necessary to explain the sex gap in earnings? *Journal of Economic Psychology* **26**: 269–287.
- Kanter RM. 1977. Men and Women of the Corporation. Basic: New York.
- Layard R. 2005. *Happiness: Lessons From a New Science*. Allen Lane: London.
- Liedtke M. 2000. Smiles more discerning at Safeway. Contra Costa Times, January 18. Business and Financial News Section.
- Markóczy L. 1998. Special issue of *Managerial and Decision Economics* on Management, Organization and Human Nature. **19**(7/8).
- Pate K. 2001. Seller beware! Secret shoppers check service; some call it spying. Denver Post, July 1. Business Section, K-01.
- Ream SL. 2000. When service with a smile invites more than satisfied customers: third-party sexual harassment and the implications of charges against Safeway. *Hastings Women's Law Journal* 11: 107–122.
- Sober E, Wilson DS. 1998. *Unto Others: The Evolution* and Psychology of Unselfish Behavior. Cambridge University Press: Cambridge.
- Stigler GJ, Becker GS. 1977. De gustibus non est disputandum. *American Economic Review* **67**: 76–90.
- Wilson DS, Sober E. 1994. Reintroducing group selection to the human behavioral sciences. *Behavioral* and Brain Sciences 17: 585–654.
- Yamagishi T, Jin N, Kiyonari T. 1999. Bounded generalized reciprocity: ingroup favoritism and ingroup boasting. *Advances in Group Processes* **16**: 161–197.