

Sustainability Comes to Management Education and Research: A Story of Coevolution

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Coevolution is the elegantly simple idea that entities evolve together in an intricate dance that changes each and all forever. Since 1991, the emergence of Organizations and the Natural Environment Division (ONE) in the Academy, the advancement of scholarly ONE research, and the emergence of sustainability-based curricula in universities have coevolved. This process has opened the door for the widespread development and dissemination of sustainability-based management curricula that teach managers how to account for the greater society and ecosystem in their decisions and actions.

As the two scholars walked down the long hallway at the Fontainebleau Hotel in Miami Beach on that Sunday evening during the 1991 Academy of Management meetings, their expectations for what they were about to experience were not really very high. They were headed for an Academy caucus on organizations and the natural environment, and they expected the usual caucus attended by a tiny group of dedicated souls discussing something important to them for an hour or so and then going their separate ways. But to their surprise, this did not turn out to be a typical Academy caucus. There were a couple of dozen scholars gathered in the room that Sunday evening, both established and emerging, and all of them were impassioned and ready for change in the Academy and at their universities. This group of scholars was further reinforced by additional members and, even more important, with stronger relationships a couple of months later during the 1991 Strategic Management Society meetings in Toronto, which had a theme of "corporate greening."

As a result of their interactions during those two 1991 meetings, these dedicated scholars morphed into an identifiable group of institutional entrepre-

neurs committed to meeting the formidable challenges of bringing the natural environment to the forefront of management research and education. During their lively and open discussions, three broad themes emerged: (1) establishing the natural environment as a legitimate issue within the Academy of Management; (2) encouraging scholarly research on managing in environmentally sensitive ways; and (3) integrating the natural environment into management curricula.

A 2-DECADE COEVOLUTIONARY JOURNEY

Indeed, those 1991 meetings were the beginning of a 2-decade journey that has seen the emergence and growth of the Organizations and the Natural Environment Division of the Academy of Management (ONE), the legitimization and expansion of ONE-related research, and the emergence of sustainability-based curricula in business schools around the globe. Further, this journey was not simply the juxtaposition of three coincidental events; rather, it has been a coevolutionary journey in which all three have developed, changed, and grown together.

Coevolution is a theory with roots in the biological and geological sciences (Ehrlich & Raven 1964; Lovelock 1979, 1988). It refers to the idea that entities evolve in concert with one another. Coevolu-

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tion has emerged as a popular organizational science framework over the past decade or so (Lewin, Long, & Carroll 1999; Lewin & Volberda, 2003; Porter 2006). Organizational scientists generally describe it as an umbrella theory that can tie together several, often disparate, popular organizational theories (i.e., systems theory, strategic choice theory, institutional theory, population ecology theory, and others). Porter (2006) points out that coevolutionary changes are typically specific, simultaneous, reciprocal, boundary spanning, adaptive, or lead to permanent changes of the entities involved.

Certainly many of these characterize the dynamics of the relationships among the three entities we present here. For example, establishing ONE in the Academy, establishing ONE's research legitimacy, and integrating sustainability into management curricula have all occurred over the same 20-year time period, making them simultaneous events. Also, specific changes have occurred as a result of the relationships among the three entities: ONE has emerged as a formal Academy unit, ONE-related articles and books have been published, and sustainability-based courses, pedagogies, and programs have emerged. And, the relationships among the three have been clearly reciprocal: The Academy provides a legitimate formal umbrella for both ONE-related research and sustainability-based curricula development, and the growth of ONE-related research and curricula in turn adds legitimacy and currency to the Academy. ONE-related research provides a solid academic foundation for sustainability-based courses and programs, and what goes on in these courses and programs provides fuel for further ONE-related research. In addition, the relationships among these three entities span numerous boundaries, and clearly, each entity has permanently changed as a result of its coevolutionary interactions with the others. In the following subsections, the changes are examined more closely.

Establishing ONE in the Academy

As exciting and cathartic as the events of 1991 were, the early ONE scholars had set some rather daunting tasks for themselves. They could succeed only by successfully challenging the conventional wisdom of an established field. Many in the Academy at that time believed that environmental concerns were only a fad, there was little or no management research that suggested any differently, and cracking the structural armor of the Academy in order to integrate the natural environment into it would certainly be a challenge.

Given that this was a group of management scholars, it would be reasonable to assume they understood that successful fundamental changes like the ones they were seeking require running a gauntlet of embedded institutional perceptions, boundaries, expectations, norms, rules, beliefs, structures, and so forth (Rodrigues & Child, 2003). Thus, the group should have expected that the 1991 catharsis would be followed by a long winding road of effort, success, and hope sprinkled with disappointment, rejection, and frustration. Some of the group clearly understood this, but others were operating on large portions of raw passion, bright-eyed naiveté, and a willingness to bet their careers on their ability to succeed. What emerged from this process was a highly dedicated group of institutional entrepreneurs (Caron & Turcotte, 2009; Déjean, Gond, & Leca, 2004; Dorado, 2005; Lawrence & Phillips, 2004) that possessed a mixture of deep institutional knowledge, significant institutional respect, and burning passion to effect institutional transformation.

One thing shared by most of the early ONE scholars was isolation and resistance to change at their home campuses. Because of this, ONE became a support group of sorts for its members. This further strengthened the group's personal and professional bonds, which enhanced even further the group's resolve to become officially recognized within the Academy. And it took all the resolve the group could muster in order to win AOM recognition. First of all, ONE was faced with clearing a plethora of formal hurdles set up by the Academy to ensure that all of its Interest Groups and Divisions are relevant, necessary, and meet quality expectations. Petitions signed by Academy members supporting the new group had to be procured, and a complex application process had to be completed. These standard institutional requirements of the Academy were numerous and often tedious, but they were clearly outlined for the most part, allowing the ONE organizers to anticipate them.

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Less anticipated was the level of resistance from others in the Academy. The ONE scholars themselves were split to some degree regarding what to do about the resistance. Should ONE be formed as a separate interest group, or should it merge with an existing division? It was a tough question, and

the discussions were impassioned and protracted. The Academy took on the role of mediator, providing financial resources so that key people on both sides of the question could meet and talk face-to-face. Finally, in April of 1994 the Academy Board approved ONE's application to become an interest group, and in 2007 ONE was awarded full division status.

A factor that contributed to ONE's 16-year drive for full recognition in the Academy was the growing recognition in the "real world" of business that the natural environment is a legitimate organizational concern. This recognition in the business world actually emerged prior to ONE's gestation and formation. For example, 3M established its now famous Pollution Prevention Pays program in 1975, 16 years before the initial ONE caucus; and the Global Environmental Management Initiative (GEMI)—a group of business organizations committed to implementing total quality environmental management (TQEM) across the globe—emerged in 1989, 2 years before the initial ONE caucus. This trend has continued over the years as more and more business organizations join the global sustainability revolution (Edwards, 2005; Hawken, 2007) by committing to triple bottom-line strategies, zero wastes, zero emissions, local community development, product stewardship, and citizens at all levels of the economic pyramid.

The early ONE scholars understood that creating ties to this growing business trend could significantly enhance the group's legitimacy within the Academy. During its first year of official Academy recognition in 1994, ONE was instrumental in bringing in Anita Roddick, founder of the Body Shop and sustainable-business pioneer, to give the Academy's keynote address. Also in 1994, two corporate-sponsored conferences involving numerous ONE scholars were held on university campuses. IBM, DuPont, and Pfizer sponsored an environmental ethics conference at Georgetown University, and Consumers Power sponsored an environmental management conference at the University of Michigan. At the Academy meetings in 1996, ONE sponsored two business-led professional development workshops, one by Procter and Gamble's chief environmental officer, George Carpenter, and the other by social investing pioneer and CERES cofounder, Joan Bavaria. Today, business organizations are forming direct partnerships with universities designed to advance sustainability agendas in scholarship, practice, and education. Two examples of such partnerships are the Center for Sustainable Global Enterprise at Cornell University's S.C. Johnson Graduate School of Management and the Applied Sustainability Cen-

ter at the University of Arkansas' Sam Walton College of Business.

Establishing ONE's Research Legitimacy

ONE's rise to full division status in the Academy would not have been possible unless scholars could develop a solid research base supporting their claims that the environment is a salient management issue affecting organizational performance, social development, and ecological health. Much of the early resistance to ONE within the Academy sprang from concerns over the potential value to management knowledge of ONE research. The barriers to establishing a meaningful research base for ONE were real and difficult to penetrate. First of all, the relevance of the issue to management was questioned early and often. In 1987, two ONE scholars had an article on E. F. Schumacher's theory of large-scale organization unilaterally rejected by the editor of a major management journal despite three revisions and unanimous favorable reviews because the editor believed that "E. F. Schumacher will never be important to management." Many untenured professors and doctoral students in ONE were advised that they might be putting their academic futures at risk by pursuing their passion for nature too openly in their work.

Again, the ONE institutional entrepreneurs rose to the occasion. A special issue of the *Journal of Organizational Change Management* on environmental change appeared in 1994, and the 1995 volume of JAI's *Research in Corporate Social Performance and Policy* was dedicated to empirical environmental management research. Also in 1995, a major ONE-research breakthrough in the Academy was accomplished with the publication of a special issue of the *Academy of Management Review* on organizations and the natural environment. This was followed in 2000 by a special issue of the *Academy of Management Journal*. Several other journals have dedicated special issues to environmental management, and several publishers have put out hardback volumes of environmental management research. Also, two journals dedicated specifically to ONE-related research, *Business Strategy and the Environment* and *Organizations and Environment*, appeared in the 1990s, and ONE scholars published many quality articles in such journals as *Harvard Business Review*, *Organization Studies*, and *Strategic Management Journal*. In addition to journal articles, several ONE-related textbooks, casebooks, and readers were published.

Remember that much of this research appeared during a time when there were serious doubts

within the Academy community regarding the legitimacy of ONE. The quality research that appeared in the early years of ONE went a long way toward removing those doubts and establishing the research legitimacy of ONE in the Academy. A wide array of scholars contributed to this research output, with special credit going to those impassioned young scholars who were willing to put their careers on the line in order to build a solid research base within the discipline. Interestingly, most of those young scholars are now senior scholars, and some are deans and other top-level administrators. This puts them in good positions to continue to serve as effective institutional entrepreneurs with the capability to further advance both the scholarship of ONE and the integration of sustainability into management education.

Integrating Sustainability Into Management Curricula

As mentioned above, many of the early ONE scholars were isolated and marginalized at their home universities, often working alone to develop courses and curricula without the interest and support of university colleagues and administrators. But these scholars persevered, and change has resulted from their efforts, as the following story demonstrates.

The story begins in 1990, when two of ONE's founding scholars presented an elective course in environmental management for approval to their university curriculum committee only to have the environmental science faculty of the university vote against the course because they were convinced that it would tread on their exclusive academic territory. The irony of having to fight environmental scientists for a course designed to protect the natural environment was certainly not lost on these two scholars at the time. In spite of this resistance, the committee approved the course, which drew 25 enthusiastic students in the first section and is now—20 years later—part of an interdisciplinary environmental studies minor. In 1991 these scholars proposed to the college's Graduate Programs Committee that the natural environment be included as a 3-week module in a new required MBA course entitled "Business Environments," but this proposal was rejected out-of-hand by the committee, which chose instead to limit the course's content exclusively to the economic environment. A few years later, in 1999–2000, these scholars were successful in getting a \$50,000 university-administered Kellogg Foundation community development grant. They used the grant to establish an interdisciplinary Center for Commu-

nity Sustainability, which provided funds and support for student projects designed to bring sustainable development to rural communities in the region. Unfortunately, even though the grant's 1st-year goals were met or exceeded, the university chose to cut the funding in half and cancel all faculty release time during the grant's 2nd year, leading to the eventual demise of the center and its related programs. Clearly, the ups and downs of acceptance and rejection these scholars experienced in their early efforts to integrate sustainability into the curricula and structure of their home university was an emotional rollercoaster ride. Like all institutional entrepreneurs, their hearts were tied tightly to their institutional change efforts, leaving them feeling elated and appreciated when they succeeded in climbing the high walls of apathy and resistance, and frustrated and unappreciated when they failed.

When these scholars first offered their environmental management course in 1990, they faced another interesting issue. There was at the time a dearth of available management frameworks and course materials for use in the class. Thus, they originally based their course on a framework inspired by the works of ecological economist Herman Daly (1977), who was both a teacher and an inspiration to them. Daly questioned the foundation assumption that the economy can function as a closed circular flow in which ever-abundant resources, products, and services can forever flow from businesses to households without stressing the Earth's social and ecological systems (Figure 1). The problem with the closed-circular-flow view is that it implicitly assumes that the economy is isolated and independent from the Earth's other systems.

Under such an assumption, the economy is not subject to the physical laws of the universe, the natural processes and cycles of the ecosystem, or the values and expectations of society. Making this assumption creates a mental model of an economy that can grow forever as self-serving, insatiable consumers buy more and more stuff from further and further away to satisfy their never-ending list of economic desires without any serious social and ecological consequences.

Daly taught that the throughput of natural capital and energy necessary to sustain the economy is ignored when the economy is portrayed as a closed circular flow. When these throughputs are added to the closed-circular-flow model, it opens up the economy to the Earth's ecological systems. This perspective makes it clear that the long-term health of the economy is dependent on the planet's scarce natural resources and limited waste man-

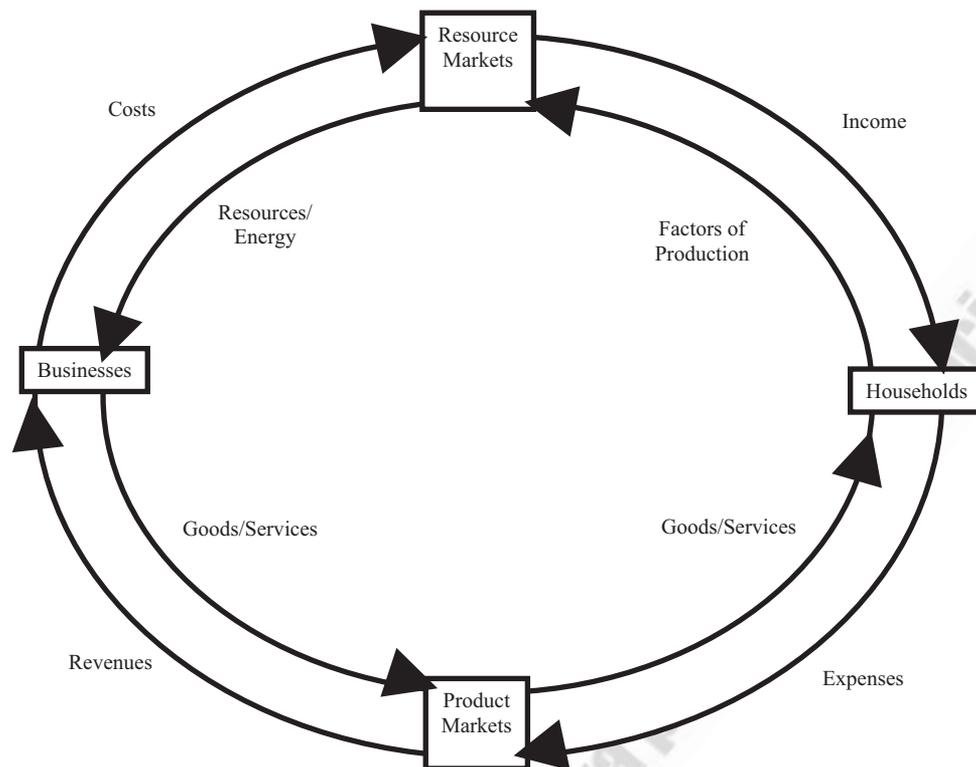


FIGURE 1

The Closed Circular Flow Economy. Source: W. Edward Stead and Jean Garner Stead. 2004. *Sustainable Strategic Management*. Armonk, NY: M. E. Sharpe. Reprinted with permission.

agement processes. Using Daly's ideas as their foundation, these scholars framed their 1990 course around the open living systems view of the economy as depicted in Figure 2. In this model, humans, the planet's most dominant species, serve both as consumers and organizational members in an economy that must function in a sustainable balance with the greater social and environmental systems.

In keeping with the economics focus of the course, the students were assigned several classic readings designed to enrich their understanding of the economy from the perspective of an open living system. They read Garrett Hardin's "A Tragedy of the Commons" (1968) and Kenneth Boulding's "The Economics of the Coming Spaceship Earth" (1966). They also read chapters from Daly's *Steady State Economics* (1977) and from E. F. Schumacher's *Small is Beautiful: Economics as if People Mattered* (1973) which includes a surprisingly rich discussion of how to structure organizations for improved sustainability performance.

Over its 20-year history, the course has remained deeply rooted in the open living systems economy (see Fig. 2). However, it has evolved from an economics-centered course to a strategic management-centered course. One factor that

made this shift possible was the emergence of quality ONE-related research. The rapid rise in ONE-related articles and books in the literature provided the resources and frameworks necessary to shift the course to a management perspective.

The current underlying framework for the course is a model which overlays the open living systems economy over the primary and support activities of the value chain (Porter, 1980). The ONE scholars use three progressively sustainable versions of this model (Figures 3, 4, and 5, adapted from Ayers 1989) to demonstrate the evolution from traditional strategic management to sustainable strategic management. Figure 3 depicts the traditional type I linear value chain. This model demonstrates a cradle-to-grave process in which nonrenewable energy is used to convert virgin materials into products that are in turn discarded as high-entropy wastes with little or no regard for the ecological impacts. In this model, firms' stakeholders are narrowly portrayed as suppliers and customers, and employees are seen primarily as laborers—simple factors of production (Freeman & Liedtka, 1997).

In Figure 4, the throughput of resources and wastes are added to the type I linear value chain. The resulting type II linear value chain focuses on

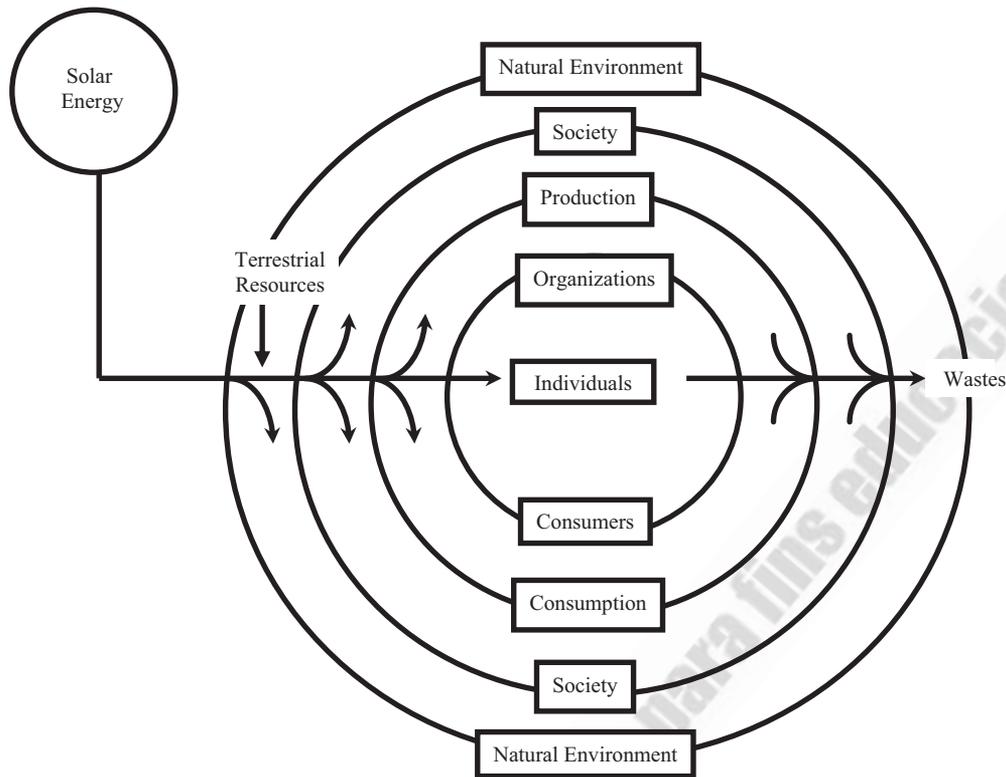


FIGURE 2

The Open Living System Economy. Source: Jean Garner Stead and W. Edward Stead. 2009. *Management for a Small Planet*, 3rd edition Armonk, NY: M. E. Sharpe. Reprinted with permission.

improved eco-efficiency (McDonough & Braungart, 2002) via resource reduction, process redesign, recycling, and reuse. Even though this model calls for increased use of renewable resources, renewable energy, and recycling when possible, it still depicts a cradle-to-grave process. Thus, firms operating within a type II value chain do less ecological harm than their type I counterparts, but they cause harm nonetheless. In the type II value chain, employees are viewed as human capital, serving as important instrumental assets in the value creation process. Also, firms in this model operate as good community citizens, allowing them to build important social capital. The ability to enhance both the social capital of the community and the human capital of the firm while contributing to the organization's economic sustainability is referred to as socio-efficiency (Dyllick & Hockerts, 2002; Figge & Hahn, 2004, 2005).

The socio-efficiency and eco-efficiency achieved through a type II linear value chain can certainly help to improve the state of the planet's natural and social capital while contributing to the firm's economic sustainability. However, achieving true sustainability in today's global economy will require that organizations go beyond just doing better. They will ultimately have to develop the capa-

bilities to operate within a type III closed-loop value chain (Figure 5). In this value chain, renewable energy and resources are transformed into products and services, and the wastes from those products and services are recycled through either the industrial or biological systems. Such systems are said to be eco-effective (McDonough & Braungart, 2002) because they are designed to mimic natural metabolic processes. Closing the value chain also requires socio-effectiveness (Benn & Probert, 2006; Carroll, 2004; Dyllick & Hockerts, 2002; Hart, 1995, 1997; Hart & Sharma, 2004), which involves accounting for the responsibility of organizations to develop and sustain a just and equitable workplace, community, and society. Socio-effectiveness means that employees are considered to have intrinsic value in and of themselves. It also means that fringe stakeholders such as the poor, weak, and disenfranchised are accounted for in the organization's stakeholder network. In doing so organizations are adding to stakeholder value by making positive contributions to a sustainable society for posterity.

Numerous other management frameworks are employed in the course to enrich the idea that operating within a closed-loop value chain can be good for the planet, good for society, and good for

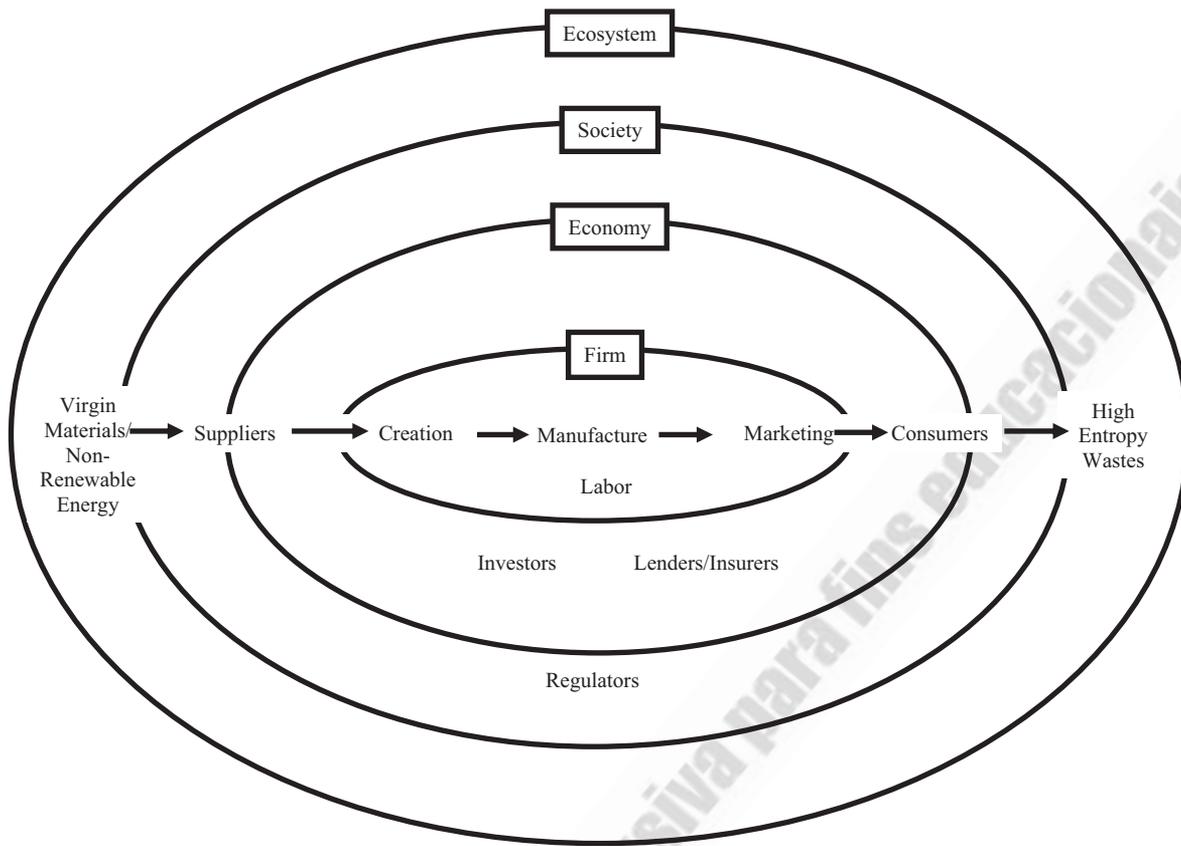


FIGURE 3

Type I Linear Value Chain. Source: W. Edward Stead and Jean Garner Stead. 2004. *Sustainable Strategic Management*. Armonk, NY: M. E. Sharpe. Reprinted with permission.

the firm in that it provides strategic advantages. Stakeholder theory (Freeman, 1984; Freeman & Gilbert, 1988) has been a central framework in the course since its inception. The course emphasizes that the Earth is the ultimate stakeholder, thus, managers have an ethical responsibility to broaden the firm's strategic processes to include social and ecological as well as economic concerns (Edwards, 2005; Hart & Sharma, 2004; Hawken, 2007; Gregory, 2000; Gladwin, Kennelly, & Krause, 1995; Shrivastava, 1995; Starik, 1995; Stead & Stead, 2000). The bottom-of-the-pyramid is another framework used in the course to broaden the strategic perspective of the course and give adequate coverage to the social, ecological, and strategic dimensions of doing business in undeveloped and developing markets (Prahalad, 2006; Prahalad & Hart, 2002; Hart, 1995, 2005; Kirchgeorg & Winn, 2006). Other management frameworks employed in the course to explain the strategic implications of managing in sustainable ways are resource-based theory (Hart, 1995, 1997), institutional theory (Hoffman, 1999), and the role of values and cognitive interpretations in strategic leader-

ship behavior (Bansal & Roth, 2000; Cordano & Frieze, 2000; Egri & Herman, 2000; Sharma, 2000).

As important as the closed-loop value chain and other frameworks are for the course, the scholars have discovered over the years that academic frameworks alone are not sufficient for truly integrating concern for nature and society into the minds and hearts of most students. Most students want the frameworks they learn supplemented with real business examples and hands-on experiences that allow them to "reach out and touch" sustainability in the business world. From its beginning 20 years ago, the course has welcomed a wide array of guest speakers from business organizations, NGOs, and so forth. Also, the course has a long history of involving students in hands-on sustainability-based projects; students have cleaned riverbanks, planted trees, started a recycling program, taught sustainability to elementary school students, served in a soup kitchen, conducted a community awareness process regarding the location of a new landfill, and developed a marketing plan for a sustainable fishery (among numerous other projects).

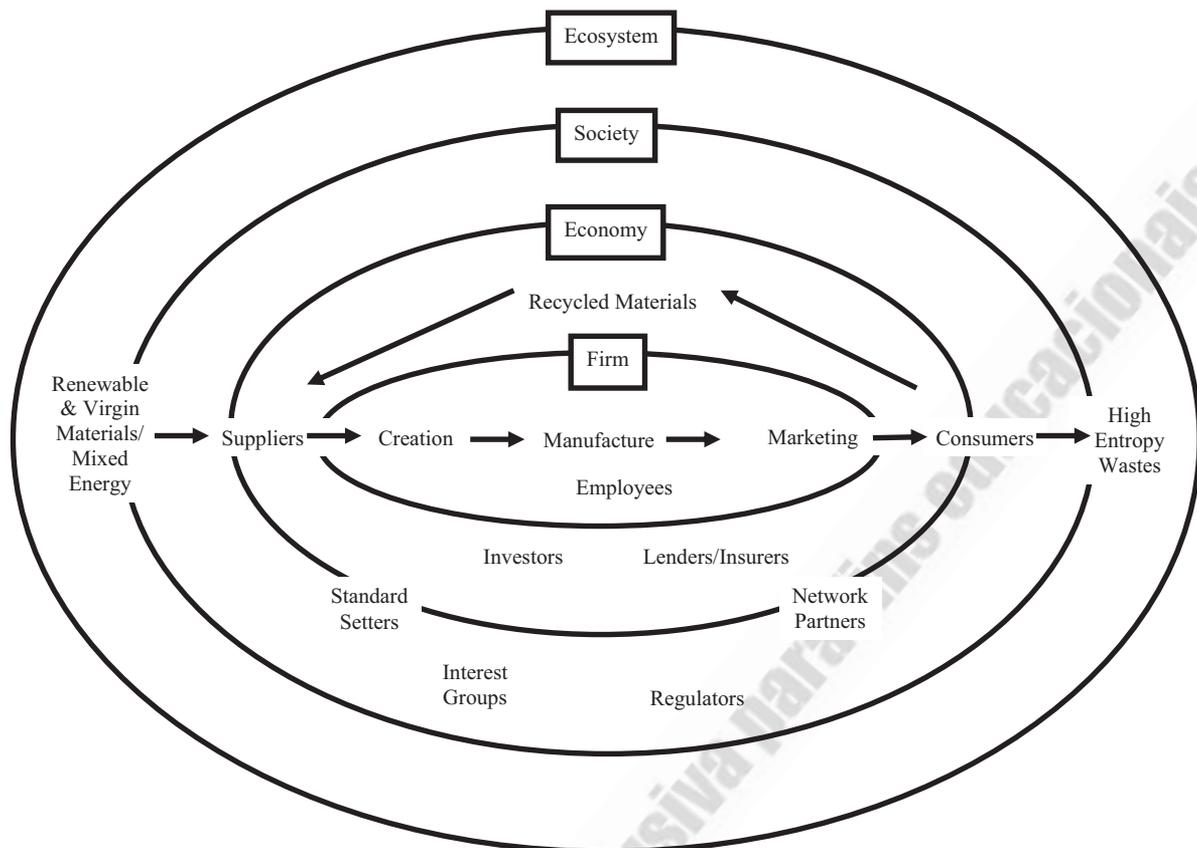


FIGURE 4

Type II Linear Value Chain. Source: W. Edward Stead and Jean Garner Stead. 2004. *Sustainable Strategic Management*. Armonk, NY: M. E. Sharpe. Reprinted with permission.

Fast forwarding to the present, many changes have taken place for these ONE scholars and their course. In the 20 years since they first taught it, sustainability has become a worldwide movement (Edwards, 2005; Hawken, 2007). Their business school has joined numerous others across the globe in recognizing this trend and committing to integrating sustainability into its curricula—a commitment now endorsed and supported by the AACSB. With this new emphasis and support, sustainability has emerged from the shadows of an isolated elective course to a primary pedagogical theme to be integrated into the curricula collegewide.

One of the most exciting aspects of this new sustainability focus is the school's burgeoning sustainability partnership with Eastman Chemical Company. *Newsweek* recognized Eastman as a top-100 green company in 2009, and Eastman has received *Cradle-to-Cradle* certification for production of its polymers. Eastman is committed to a triple bottom-line approach of value creation, and it has adopted sustainability-based guiding principles that tie its economic growth to

environmental stewardship and social responsibility. This partnership is quite new, but it is already bearing fruits for both the school and the company. For example, the Eastman sustainability team participated in a faculty development workshop, and they have hired a student from the college as a summer intern to work on product life-cycle analysis. Eastman's CEO will soon visit the campus for a full day to discuss his firm's sustainability efforts with students and faculty, and the school's management faculty and Eastman's sustainability team are now working together to develop a framework for incorporating Eastman's sustainability initiatives into the school's capstone strategic management classes.

This story of the ONE scholars working to integrate sustainability into their school's curriculum is typical of the efforts of many ONE scholars at many schools. It begins as a story of isolation and marginalization and evolves over 2 decades into a story of integration and value creation. Sustainability-based management curricula, virtually nonexistent 20 years ago, are growing across the world. Business schools are offering

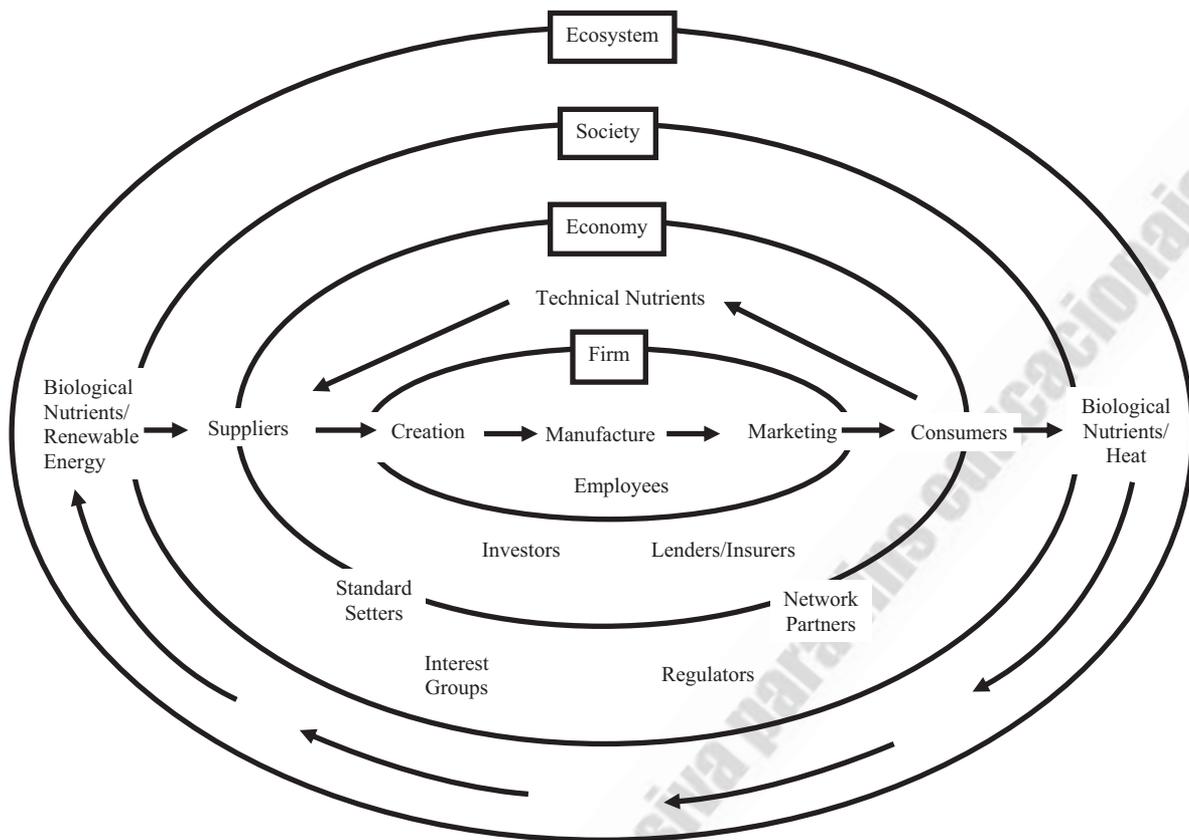


FIGURE 5

Type III Closed Loop Value Chain. Source: W. Edward Stead and Jean Garner Stead. 2004. *Sustainable Strategic Management*. Armonk, NY: M. E. Sharpe. Reprinted with permission.

programs such as sustainable MBAs, and this trend is likely to continue for the foreseeable future. Clearly, seeking sustainability-based change no longer has to be an isolating, marginalizing experience for scholars in business schools.

CONCLUSIONS

Coevolution is the elegantly simple idea that entities evolve together in an intricate dance that changes each and all forever. The emergence and legitimization of ONE within the Academy, the advancement of scholarly ONE-related research, and the emergence of sustainability-based curricula in universities have coevolved.

Coevolution is the elegantly simple idea that entities evolve together in an intricate dance that changes each and all forever.

Almost 2 decades ago, a few passionate, dedicated scholars wrote a few books and articles espousing environmental responsibility for organizations, designed a few new courses to teach what they had learned, and got together at the Academy to discuss their research and teaching. Now those institutional entrepreneurs have evolved into an Academy division, those books and articles have evolved into a plethora of quality ONE research, and those courses have evolved into a wide range of sustainability-based undergraduate and graduate programs across the globe, many now housed in LEED certified buildings. The key is that these three factors have not evolved separately. Each has grown and changed in concert with the others. These changes have been specific, simultaneous, reciprocal, adaptive, and boundary spanning, and all three entities have permanently changed as a result. This coevolutionary process has helped open the door for the widespread development of sustainability-based management curricula that teach managers to account for the greater society and ecosystem in their decisions and actions.

REFERENCES

- Ayres, R. 1989. Industrial metabolism. In J. Ausubel and H. Sladovitch, (Eds.), *Technology and environment*: 23–49. Washington, DC: National Academy Press.
- Bansal, P., & Roth, K. 2000. Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4): 717–736.
- Benn, S., & Probert, E. J. 2006. Incremental change towards sustainability: Integrating human and ecological factors for efficiency. In S. Schaltegger and M. Wagner, (Eds.), *Managing the business case for sustainability*: 542–552. Sheffield, UK: Greenleaf Publishing Limited.
- Boulding, K. E. 1966. The economics of the coming spaceship "Earth." In H. Jarrett, (Ed.), *Environmental quality in a growing economy*: 3–14. Baltimore, MD: Johns-Hopkins Press.
- Caron, M.-A., & Turcotte, M.-F. 2009. Path dependence and path creation: Framing the extra-financial information market for a sustainability trajectory. *Accounting, Auditing, and Accountability Journal*, 22(2): 272–297.
- Carroll, A. B. 2004. Managing ethically with global stakeholders: A present and future challenge. *Academy of Management Executive*, 18(2): 114–120.
- Cordano, M., & Frieze, I. H. 2000. Pollution reduction preferences for U.S. environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal*, 43(4): 627–641.
- Daly, H. E. 1977. *Steady-state economics*. San Francisco, CA: W.H. Freeman and Company.
- Déjean, F., Gond, J.-P., & Leca, B. 2004. Measuring the unmeasured: An institutional entrepreneur strategy in an emerging industry. *Human Relations*, 57(6): 741–764.
- Dorado, S. 2005. Institutional entrepreneurship, partaking, and convening. *Organizational Studies*, 26(3): 385–414.
- Dyllick, T., & Hockerts, K. 2002. Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11(2): 130–141.
- Edwards, A. R. 2005. *The sustainability revolution: Portrait of a paradigm shift*. Gabriola Island, BC: New Society Publishers.
- Egri, C. P., & Herman, S. 2000. Leadership in the North American environmental sector: Values, leadership styles, and contexts of environmental leaders and their organizations. *Academy of Management Journal*, 43(4): 571–604.
- Ehrlich, P. R., & Raven, P. H. 1964. Butterflies and plants: A study in coevolution. *Evolution*, 18: 586–608.
- Figge, F., & Hahn, T. 2004. Sustainable value added—Measuring corporate contributions to sustainability beyond eco-efficiency. *Ecological Economics*, 48(2): 173–187.
- Figge, F., & Hahn, T. 2005. The cost of sustainability capital and the creation of sustainable value by companies. *Journal of Industrial Ecology*, 9(4): 47–58.
- Freeman, R. E. 1984. *Strategic management: A stakeholder approach*. Boston MA: Pitman.
- Freeman, R. E., & Gilbert, D. R., Jr. 1988. *Corporate strategy and the search for ethics*. Englewood Cliffs, NJ: Prentice-Hall.
- Freeman, R. E., & Liedtka, J. 1997. Stakeholder capitalism and the value chain. *European Management Journal*, 15(3): 289–299.
- Gladwin, T., Kennelly, J., & Krause, T. 1995. Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of Management Review*, 20(4): 874–907.
- Gregory, R. 2000. Using stakeholder values to make smarter environmental decisions. *Environment*, 42(5): 34–44.
- Hardin, G. 1968. The tragedy of the commons. *Science*, 162: 1243–1248.
- Hart, S. L. 1995. A natural resource-based view of the firm. *Academy of Management Review*, 20(4): 986–1014.
- Hart, S. L. 1997. Beyond greening: Strategies for a sustainable world. *Harvard Business Review*, 75(1): 67–76.
- Hart, S. L. 2005. *Capitalism at the crossroads*. Upper Saddle River, NJ: Wharton School Publishing.
- Hart, S. L., & Sharma, S. 2004. Engaging fringe stakeholders for competitive imagination. *Academy of Management Executive*, 18(1): 7–18.
- Hawken, P. 2007. *Blessed unrest*. New York: Viking.
- Hoffman, A. J. 1999. Institutional evolution and change: Environmentalism and the U.S. chemical industry. *Academy of Management Journal*, 42(4): 351–371.
- Kirchgeorg, M., & Winn, M. 2006. Sustainability marketing for the poorest of the poor. *Business Strategy and the Environment*, 15(3): 171–184.
- Lawrence, T., & Phillips, N. 2004. From *Moby Dick* to *Free Willy*: Macro-cultural discourse and institutional entrepreneurship in emerging institutional fields. *Organization*, 11(1): 689–711.
- Lewin, A. Y., Long, C. P., & Carroll, T. N. 1999. Coevolution of new organizational forms. *Organization Science*, 10(5): 535–553.
- Lewin, A. Y., & Volberda, H. W. 2003. The future of organization studies: Beyond the selection-adaptation debate. In H. Tsoukas and C. Knudsen, (Eds.), *The Oxford handbook of organization theory*: 568–595. New York: Oxford University Press.
- Lovelock, J. 1979. *Gaia: A new look at life on Earth*. London: Oxford University Press.
- Lovelock, J. 1988. *The ages of Gaia*. New York: Bantam Books.
- McDonough, W., & Braungart, M. 2002. *Cradle to cradle*. New York: North Point Press.
- Porter, M. E. 1980. *Competitive strategy*. New York: The Free Press.
- Porter, T. B. 2006. Coevolution as a research framework for organizations and the natural environment. *Organization and Environment*, 19(4): 1–26.
- Prahalad, C. K. 2006. *The fortune at the bottom of the pyramid: Eradicating poverty through profits*. Upper Saddle River, NJ: Wharton School Publishing.
- Prahalad, C. K., & Hart, S. L. 2002. The fortune at the bottom of the pyramid. *Strategy+Business*, 26. <http://www.cs.berkeley.edu/~brewer/ict4b/Fortune-BoP.pdf> (accessed June 24, 2010).
- Rodrigues, S., & Child, J. 2003. Coevolution in an institutionalized environment. *Journal of Management Studies*, 40(8): 2137–2162.
- Schumacher, E. F. 1973. *Small is beautiful: Economics as if people mattered*. New York: Harper and Row.
- Sharma, S. 2000. Managerial interpretations and organizational

context as predictors of corporate choice of strategy. *Academy of Management Journal*, 43(4): 681–697.

Shrivastava, P. 1995. Ecocentric management in industrial ecosystems: Management paradigm for a risk society. *Academy of Management Review*, 20(1): 118–137.



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Starik, M. 1995. Should trees have managerial standing? Toward stakeholder status for non-human nature. *Journal of Business Ethics*, 14(3): 207–217.

Stead, J. G., & Stead, E. 2000. Eco-enterprise strategy: Standing for sustainability. *Journal of Business Ethics*, 24(4): 313–329.



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