Appreciative Intelligence
## Seeing the Mighty Oak in the Acorn—Part 1

By Tojo Thatchenkery & Carol Metzker

Appreciative Intelligence is the ability to see the generative potential in any situation—the oak within the acorn—and to actualize it. It is the subject of a new book of the same name by Prof. Tojo Thatchenkery (who studied under Academy Fellow **David Cooperrider** at Case Western) and Carol Metzker, published by Berrett-Koehler. Through extensive research, the authors have found that individuals with this ability can reframe situations, appreciate the positive, and see how the future unfolders from the present. They show four consistent traits: persistence, conviction that one's actions matter, tolerance for uncertainty, and irrepressible resilience.

A "first cousin" of Emotional Intelligence and Appreciative Inquiry, Appreciative Intelligence has widespread potential to assist large and small businesses, NGOs, educational institutions, and non-profits to develop new solutions, collaborate better, innovate, and more. For example, the principles of Appreciative Inquiry were used by Rotary International in its successful effort to eradicate polio across all of India. It's also in use at a remarkable Quaker school in Pennsylvania, and at businesses and governmental entities in the United States.

This article includes an interview with the authors, and excerpts from their just-published book.

Appreciative Intelligence is available in bookstores, online, and from the publisher Berrett-Koehler.
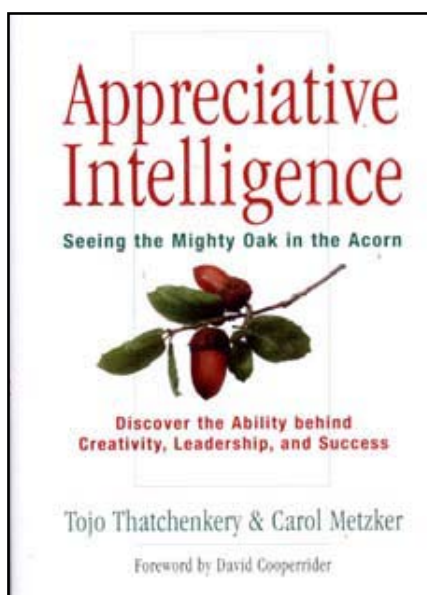
Seeing the Future Unfold from the Present

> "The Ancient Greeks, I say, … listened to the wind and predicted the future from that."
> De Weese squints. "How could they tell the future from the wind?"
> "I don't know, maybe the same way a painter can tell the future of his painting by staring at the canvas. "
>
> —Robert M. Pirsig, *Zen and the Art of Motorcycle Maintenance*

There are thousands of talented artists, business people, and creative individuals in the world. Many of them are able to reframe reality and appreciate the positive. But many of their projects or products do not succeed or survive in the marketplace because the crucial last component of Appreciative Intelligence is not present.

People with high Appreciative Intelligence are able to realize that unfolding the future from the present is a critical final step. They are able to recognize the role of environment or external factors in this process, and they have a unique ability to see how the generative potential of the present connects directly to the future. They can see how positive aspects of the current state could be directly applied to achieve goals. One of us (Tojo) has used the term "future-present"[1] to describe the mindset in which a person is able to see the future in the present, as if bringing the concrete experience anticipated in the future to the domain of the present. People with high Appreciative Intelligence are able to visualize and create the sequential small steps that build on one another, thus creating the momentum for change in individuals and their environments that leads to positive outcomes.

In each case we studied, those with Appreciative Intelligence reframed the present—the current state—such that a positive future state could be reached through resources, tools, and concepts that already existed. Pellerin reallocated money and capabilities already within the NASA system. Kamen's breakthrough inventions were based on recognition of culture, knowledge, and principles that already exist. By linking the future to the present, their innovative and creative solutions were grounded, led to action, and were accomplished over time.

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Appreciative Intelligence, Appreciative Inquiry & Emotional Intelligence

TOJO: I came from Case Western and most of these ideas were nurtured while I was there. Consequently there has been a bit of confusion now and then with Appreciative Inquiry. There are some similarities with it. But we think more about AI as an ability. It's more in line with the multiple intelligence paradigm. The foundation is really Howard Gardner's work on multiple intelligences and my own background is psychology before I went into management. Appreciative Intelligence is more of an ability, a cognitive faculty in our brain mediated by cultural experiences and so forth, as opposed to a process like Appreciative Inquiry. Gardner said there are multiple intelligences but people focus more on cognitive intelligence at the expense of other forms of intelligence. We wanted to position this as an intelligence, as an ability rooted in the intelligence literature in Psychology.

Once we conceptualize it as an ability, the next step is to think about the components and aspects of this ability. You cannot have zero IQ—you can have 80 or 90 IQ in the traditional model, or a superior 160, etc. In that same line of thinking we would say that everyone has Appreciative Intelligence. Some people might have more of it than others but it can easily be developed. Whether you talk about the nature/nurture controversy—"Are people born with Appreciative Intelligence higher than others? Or does the environment help them develop it?"—we don't really have an answer. We have to do more research to find that out. It will take us a long time to understand these issues.

CAROL: There are differences and there are similarities to Appreciative Inquiry and Emotional Intelligence. It could be considered a first cousin to both. Appreciative Inquiry is a methodology and an approach; Appreciative Intelligence is an ability. Emotional Intelligence deals with characteristics such as empathy, and love. Appreciative Intelligence is a little bit different; it has its own separate components and definition. I think what Tojo touched on just a little was the ways in which Appreciative Intelligence is a cousin to these other concepts and constructs. It is part of the Positive Psychology Movement. EI, Appreciative Inquiry and Appreciative Intelligence are looking at something that is looking toward a better future, not necessarily what's wrong so that we have an intervention. We can weave them together wonderfully when we begin to ask questions. I was just speaking with a woman named Marjorie Johnson, a local consultant in Pennsylvania who is working a lot with her clients with Emotional Intelligence. Usually we are looking for some of the same goals: How do we get people working together? How do we grow leaders? What do we do to change what we have now for a better future? That is where we begin to weave some of these things together. We begin to see something a little bit different.

Nobody is without AI. Look at all the successful things we do—and everyone around us does—to make it to the end of the day successfully. We solve a huge number of problems. We're always doing little creative things.

Several years ago, the polio eradication program ran into a hitch. In India, for cultural reasons, many fathers resisted immunization of their children. Rotarians and their program partners held National Immunization Days, but few families visited the immunization sites to receive the vaccine, a situation that threatened to leave children vulnerable to the crippling or fatal effects of the disease. Using Appreciative Intelligence, [in their successful program to eradicate polio in India] Rotarians yet again switched frames, from a medical or organizational frame to a cultural frame. They also saw and appreciated that a beautiful and talented movie actress named Manorama was popular among men. They saw how the celebrity could apply her talents and charisma to educating and persuading fathers to take their children to immunization sites. By understanding the role of the environment and culture (the men's discomfort with having their children immunized and their enjoyment of Manorama's films), polio eradication coordinators were able to see how to address the issue. They saw how change was possible through the concrete action of filming Manorama in an appeal to immunize children against the disease. The short film helped overcome paternal resistance. Crowds gathered at the immunization sites, and in some areas the oral vaccine drops were dubbed "Manorama drops." [2]

Although we separate Appreciative Intelligence into three components for the sake of explanation and discussion, many of the leaders we interviewed described solutions as coming to them in one mental process. They did not reframe one day, see what was valuable the next, and determine a week later what aspects of the present could set the course for a desired future. Their answers came in one "piece," and all three components were interwoven. They were able to identify proactive action steps at the beginning. In the instance of Manorama's film for the polio eradication campaign, the positive generative present and future aspects were integrated: Rotarians' reframing of polio eradication as a cultural challenge specific to a portion of the male population, appreciation of the actress's appeal and ability to influence that audience, and concrete plans to create a film to encourage fathers to have their children immunized.

George Shaw, a sales associate at W. L. Gore, described his flashes of insight, including one that led to a new oil and gas exploration subsidiary for his company. "The idea comes all at once," he said. "You can see the idea from beginning to end all at the same time." [3] Analogously, he could see the thriving oak tree as he looked at the acorn in hand. Shaw's descriptions of his mental images concurred with others' accounts of understanding and envisioning the future outcomes and a few specific steps to get there in the present. In many cases, projects progressed over long periods of time by forming a chain of insights and answers each time a new question arose.

Creating (Not Just Predicting) the Future

Business success stories, management researchers, and psychologists provide us with insights about the ways leaders and entrepreneurs see and realize the future unfolding from the present. They offer theories and examples of enactment and generative language. Rather than hand us a crystal ball

that conjures images of the future based on notions from an isolated tower, they provide clues as to how people create and shape the future by interacting with others.

One of the key challenges of having the ability to see the future unfold from the present is figuring out what is going on in the environment or market. An idea is perceived as brilliant when opinion leaders or the professional community judge it to be so. Similarly, something is perceived as innovative when the leaders behind the concept succeed in getting the market to judge and value the idea, product, or process as innovative.

Consider the case of BlackBerry[TM], the wireless device that acts as an e-mailer, Web surfer, phone, and personal digital assistant, all in one. Due to its substantial use and popularity among celebrities as well as the general public, Blackberry has entered colloquial speech as a verb. People Blackberry (send messages back and forth) their friends while waiting at the airport, similar to the way consumers Fedex (send via overnight service) packages and Xerox (photocopy) documents. The story of Research in Motion (RIM), the Canadian company that makes Blackberry, is a good example of the ability of its 45-year-old founder, Mike Lazaridis, to see the future unfolding from the present.

In 1997 Lazaridis began thinking about combining e-mail with wireless networks used by pagers at that time and developed a gadget he called Inter@ctive Pager. Lazaridis could not get the mobile phone companies to buy into his idea, because they were focused on earning revenue from voice calls on their analog networks. To create his vision of the future of everyone sporting a BlackBerry, RIM bought airtime on pager networks and offered the mobile e-mail service itself. The company marketed and sold its services to investment banks and law firms. By 2002, RIM had signed up half a million BlackBerry subscribers.[4] That number is projected to reach 4.5 million by the end of 2005 with 200 carriers.[5]

It is evident how Mike Lazaridis reframed pagers as a two-way, instead of one-way, communication device along the lines of e-mail. He appreciated certain aspects of communication technology available at the time and people's natural desire for back-and-forth dialog. Above all, he was able to envision the early steps necessary to get to the future from the present, inventing "a back channel so messages could go both ways" and, later with members of RIM, designing a system that would work on limited battery power, raising capital to fund research and development, and licensing some BlackBerry features to earn more money and take the product to a larger market.[6]

People with Appreciative Intelligence knowingly incorporate a view of the environment or the landscape of reality into their daily lives. At the same time they respond to the environment, they also, in turn, invent it. For them, environment is not only something that is "out there"; it is also created by their imagination and actions. People with Appreciative Intelligence believe that they have a great deal of control in determining what environment they are in or will deal with (conviction that actions matter).

People with Appreciative Intelligence respond to — and invent — their environment.

Management researchers Lloyd Sandelands and Robert Drazin expressed this notion at the organizational level in a way that, we believe, can be applied at the individual level. According to Sandelands and Drazin, "Environment is the idea that there is something outside the organization that somehow explains what is inside. As a point of logic, environment could not determine organization because it is defined by organization. By definition there is no organizational environment until there is an organization to have it."[7] Likewise, a person's environment exists when there is a person to have it and define it.

Such interpretations allow people with high Appreciative Intelligence to recognize that they are part of the environment or the world around them as opposed to being an entity independent of it. They understand connections between themselves and the world around them. They see the circular process of their actions affecting people and situations around them and, in turn, their surroundings driving their actions also. The Nobel laureate Herbert Simon (1916-2001) clarified this process: "The first step in rational action is to focus attention on some specific (strategic) aspects of the total situation, and to form a model of the situation in terms of the aspects that lie in that focus of attention. Rational computation takes place in the context of this model, rather than in the response to the whole external reality."[8]

An Interview with Tojo Thatchenkery and Carol Metzker

Mini Case Study #1: Indian Project Managers

TOJO: Last December I was in Chennai in India and was doing a workshop for a large consulting services company. I was working with project managers. Their clients are Fortune 100 companies. As project managers they are trained in a certain way when they are doing project management. There are clear deadlines, absolute quality control and concern about not losing business in a highly competitive environment.

Project managers are taught to achieve maximum efficiency in what they do. As I talked about AI they started seeing the value of reframing. How they could look at what they were doing in a slightly different way and also start seeing possibilities in situations they thought really were not worth much? They hadn't seen much coming out of some situations earlier. Because of the workshop they were able to see ways of responding to clients in a better way and recognize new business opportunities. And also appreciate their own managers or the IT/Software engineers and programmers. They are all slightly different, and they can relate to them slightly differently. All of this is based on understanding of AI as a form of intelligence. This is a group of people who see themselves as highly intelligent in the traditional, in the cognitive IQ way.

Once they recognize there is another type of IQ they start thinking about whether they have it. And if they have it, what do they have to do to demonstrate it? That's where the reframing comes in.

Based on a framework provided by noted management thinkers Karl Weick and Richard Daft,[9] we conceptualize a model for unfolding the future from the present by extrapolating their organizational level analysis to the individual level. Two key dimensions of this framework after our adaptation are (1) an individual's beliefs about whether or not his or her environment can be understood or analyzed and (2) the extent to which the individual engages with the environment to have an impact on it. When an individual believes that the environment is relatively simple to understand or views it passively, rather than actively engaging it, he or she is more likely to accept information about the environment by chance, routine data analysis, or discovery. An individual with high Appreciative Intelligence, on the other hand, aware of the complexities of the environment and believing that his or her actions matter, is more likely to see that the world is not static and simple to analyze and that active interaction can have an impact on the world and the future. In the mode Daft and Weick call "enactment," the individual interacts with his or her surroundings by experimenting, learning by doing, creating opportunities, and inventing pieces of the environment. Such individuals create an environment or market for new ideas, products, or services instead of waiting to find out to what extent a need or desire already exists.[10]

A term that captures the sense of physically taking action or "doing something," enactment can be viewed as bracketing some experiences from the stream of events and swarm of experiences.[11] The product of enactment is the transformed environment that has been acted upon by the person who has selected salient aspects of the events and experiences. In a vivid example of inventors and inventions taking action and changing the market rather than waiting for the market to call for an invention first, Sony and JVC engineers once looked at a $50,000 tape recorder produced by Ampex in the late 1950s and imagined a market where a similar product could be sold for $500.[12] The affordable personal tape recorder, like some of Sony's other successful products, was once seen by others as an unattainable dream. Yet the company gave its engineers and designers the freedom to imagine and create the technology necessary for transforming their visions into reality.[13] By inventing and offering people the chance to try smaller and less expensive tape recorders, radios, and tape players like the Sony Walkman, they created a market that demanded affordable portable devices for recording and listening to music,[14] as well as other gadgets for entertainment.

Similarly, no market research would have predicted the need for microwave ovens, instant cameras, cellular telephones, compact disc players, fax machines, the BlackBerry, and the Internet. Instead, by introducing the product, the market was created.

As the stories of Manorama's film about immunization and RIM'S BlackBerry illustrate, the key step of unfolding the future from the present entails the "enactment of possibilities" as opposed to "enactment of limitations," a distinction first articulated by Karl Weick. What Weick referred to as the enactment of limitations is a process wherein "inaction is justified by the implantation, in fantasy, of constraints and barriers that make action impossible. These constraints, barriers, prohibitions then become prominent 'things' in the environment. They also become self-imposed restrictions on the options

An individual with high Appreciative Intelligence is aware of the complexities of the environment and believes that his or her actions matter.

that managers consider and exercise when confronted with problems."[15] The result is a "failure to act rather than a failure while acting."[16] By avoiding testing possible ideas, which precludes testing their skills, individuals may come to the conclusion that constraints exist in the environment limiting their potential responses.[17] In other words, in behaviors and mindset that can be recognized in consistent "nay-sayers" in a group or an individual who gets stuck in recurring problems, people mired in enactment of limitations quit solving a challenge before they even get started.

Action precedes and determines cognition.

In contrast, the enactment of possibilities is the mindset that leaves the door open for potential action and solutions. A strong image of "anticipatory reality"[18]—that is, seeing the detail of the future as if it has already happened—helps in diverting attention from what is not possible to what is achievable for the enactment of possibilities. What is also important for creating enactment of possibilities is action. People can "construct, rearrange, single-out, and demolish many … features of their surroundings."[19]

One of the basic tenets of enactment of possibilities is the notion that action precedes and determines cognition.[20] Action is the source of knowledge about the environment, and it helps the person who is thinking and acting in the environment make sense of the events taking place. As we mentioned in our previous discussion of perspective and framing, people select an aspect of the environment on which to focus and then take action. Essentially, what this notion describes is that we find what we seek, we act on what we find, and we change and learn about our world by acting on it. That is, possibilities are realized through behaviors that create a self-fulfilling prophecy.

In an example of enactment, or realizing possibilities through actions that create self-fulfilling prophecies, teachers at Delaware Valley Friends School select talents of a particular student to focus on. Once that selection occurs, teachers work to reframe the talents of the student to bring out her best, show her the various steps she needs to take (such as attending specific classes and accomplishing certain types of projects), and finally believing strongly in the student's capacity to realize her potential. The teachers see the anticipatory reality. They see the future in the present and share it with the student so that she can "see" it for herself. Encouraged by the support of teachers and other members of the school community (an important validation for the student who previously was plagued by self-doubt, developed from double messages she had received from traditional schools or society at large), the student enacts by engaging in a series of focused activities to achieve the end state of success in learning.

Creating the Future through Language

Our framing of situations, interactions, and relationships influences what happens in our future. The way we speak—the language we use to frame our conversations—also shapes the results of projects and problems. Language is generative, meaning that the words we use actually construct our reality, as shown in the following true story.

A friend (let's call her Ellen) grew up in a foreign country. Some of her child-hood experiences—such as singing in the bathtub and putting on plays for her parents—were similar to the author's. Other things were different. For in-stance, she had never seen an electric garage door opener before she came to the United States.

She and her husband bought a home with an electric garage door opener. There was only one remote control, and my friend kept it in her car. Every evening after work Ellen pushed the remote button to open the garage door automatically. She drove the car into the garage, and flipped the wall switch to close the door as she walked from the garage into the house.

Each morning before work, Ellen performed a different routine. She walked from the house into the garage, flipped the wall switch to open the ga-rage door, and drove the car out of the garage. Then she got out of the car, walked back into the garage, flipped the wall switch to close the door, and dashed out—in high heels and suit—under the slowly closing garage door. This routine continued for several months until her husband made an unex-pected morning trip back home to pick up a forgotten item and witnessed her exit from the garage.

"What are you doing?" he asked in amazement.

"Closing the garage door," she replied. "What does it look like?" "Why don't you use the garage door opener?" he asked incredulously. "Oh." Ellen broke into a grin. "It closes it, too, doesn't it?!"

Ellen's thinking and behavior—use of the remote control as solely an "open-er"—had been limited by the word she used to label the product. Similar processes are at work as leaders and innovators frame employees as friends instead of as parts of a system or as talented practitioners instead of as cogs in a wheel, and situations as challenges or mysteries instead of problems or showstoppers. Such language is called "generative" because by virtue of its use, it creates or generates a particular reality, path, or outcome.

Psychologist Kenneth Gergen has written extensively about generative theory and generative language. He indicated that generative theories are "accounts of our world that challenge the taken-for-granted conventions of understanding and simultaneously invite us into new worlds of meaning and action."[21] For example, psychoanalyst Sigmund Freud's theories included the concept of repression, which allowed him to see suppressed memories in his patients. His generative language of superego provided an alternative explanation for morality and conscience. Freud's terminology opened the door for new fields, including psychiatry. The terminology became accepted in the medical and mental health professions and eventually became part of our popular culture and language. Thus, today when we hear terms like unconscious, conscious, repressed sexuality, and defense mechanisms, we no longer think of Freud. We simply think of these terms as something real.

Similarly, Karl Marx's notion of class separatism is an example of generative language that changed how people perceived reality and attitudes toward social change. Terms such as "class struggle" and "capitalism" and names for the working and ruling classes ("proletariat" and "bourgeois")—new at that

(Certain) language is called "generative" because, by virtue of its use, it creates or generates a particular reality, path, or outcome.

time, but now part of our history and vocabulary—were generative because they caused people to question the assumption that class differences were natural. The language recast workers as revolutionaries and led to huge political, economic, and societal changes. [22]

Story-telling in organizaitons also shapes the future.

According to Gergen, a generative theory "invites us to suspend the traditions, and to experiment with new ways of inventorying the world, describing and explaining. …it asks us to take a risk with words, shake up the conventions, generate new formations of intelligibility, new images, and sensitivities."[23] Generative language can create new paradigms[24]—or shifts in what we know or believe or how we see the world—by allowing users to perceive new opportunities when conventional language limits them, the way Ellen was limited by the word "opener."[25]

Another example is that of Swiss watch makers, who once dominated the timepiece industry. The traditional language of watch making—"spring movement"—kept them from perceiving the opportunities afforded by the new quartz movement technology, invented by the Swiss themselves. In their perception, if a watch did not have springs, it was not a watch. The Japanese Seiko Company was open to the generative language of "quartz movement." History tells us that a few decades later the Japanese dominated the watch-making industry, and the Swiss lost control of it.[26]

Leaders' storytelling in their organizations also shapes the future. As with those we studied, their narratives share more than the context and details of an event—who was involved, what action happened, and the outcome or direct lessons from the story. They share emotions, judgments, values, beliefs, and attitudes. Using the process of story framing (described in Chapter 2 of this book), they inspire and build the confidence of others and demonstrate the value of certain behaviors. Storytelling is an engaging or entertaining form of communication because listeners identify with characters or recognize salient themes, thus entering into and connecting with the story as a participant or co-creator.

According to Stephen Denning in *The Springboard: How Storytelling Ignites Action in Knowledge-Era Organizations*, "When the story rings true, it enables the listeners to generate a new gestalt in their minds, which embraces the main point of the change [in the story]. For beyond the obvious transmittal of information, the immersion of the self in the events that constitute the story can have an impact. To follow a story as a listener is to give a kind of implicit consent to exhibit a willingness to participate in a journey leading to a mental destination that at the outset is unknown to the listener."[27]

The result of such willingness to enter a story is often the ability to try out and accept a new frame of reality. According to W. L. Gore associate George Shaw, people in his company share all sorts of stories of their distant and recent business history. "We all know different ones," he said, referring to stories about people flossing their teeth, bike cables, breaking Sieve's stove when the business was run from the Gores' home, and others. Some have changed over time, and others have practically become legends. The real importance of the stories, said Shaw, is that "they let new associates see that everyone has ideas that matter."[28] The moral of these stories is paramount to

a company that needs numerous innovative ideas in order to bring a few blockbusters to the market. The moral of the story is also proof for associates that the company as a whole "walks the talk" that "everyone can quickly earn the credibility to define and drive projects."[29]

Similarly, at robotics competitions, work sessions with allies, and other events or in publications, participants [in Dean Kamen's FIRST robot competition for high schoolers] read or hear the true tale of the robot that was once shipped upside down to a competition. As the story goes, members of other teams gathered around the pile of parts and rebuilt the robot with the team that originally designed and built it.

As FIRST students hear the legend and pass it along to newcomers to the organization, they identify with the team members who, like themselves, spent time and effort on building a robot. They recognize the plight and disappointment of a mistake beyond their control. Through the story's successful ending, they learn the positive results of respect and professionalism, attitudes behind irrepressible resilience and the power of persistence. As students and mentors retell the story with a tone of pride, the cycles of building conviction that one's actions matter, identification with the students who helped rebuild the broken robot, and an openness to a positive future continue.

One final ingredient important to seeing how the future unfolds from the present seems to be imagination. By applying the imagination of a child to the knowledge and awareness of an adult, innovation can result. One individual described the process as "zooming around mentally," or seeing something new in one place and pretending that the trend or product were fully adopted in another place. He described the hypothetical example of learning about a new software application while watching a business television program and imagining it in use at an airport, an office, and a home. Envisioning who would benefit from it, what the location would look like as a result of the change, and who would have fun was simply the grownup version of pretending 40 years earlier that an action figure could run across the floor and figuring out what could be used to approximate human movement--swivels, levers, wheels, and, later, electronics.

By weaving together knowledge about the environment and imagination, people with Appreciative Intelligence see a different future than others do. Through enactment—actively experimenting and interacting with the environment—and generative language, they create new possibilities. They connect capabilities of today and the dreams of tomorrow by seeing the steps that make the former become the latter. People with Appreciative Intelligence see how the future unfolds from the present.

FOOTNOTES

1. Tojo Thatchenkery, *Appreciative Sharing of Knowledge: Leveraging Knowledge Management for Strategic Change* (Chagrin Falls, Ohio: Taos Institute Publishing, 2005), 73-74.

2. Raja Meenakshi, People's Project Coordinator of the Pulse Polio Immunisation Programme, interview by author, Chennai, Tamil Nadu, India, November 17, 2004.

3. George Shaw, interview by author, August 16, 2005.

4. *Innovation in Canada*, "Case 7, Research in Motion," http://innovation.ic.gc.ca/gol/innovation/site.nsf/en/in04212.html (accessed September 23, 2005).

5. Brad Stone, "BlackBerry: Bring It On!" *Newsweek*, September 26, 2005, E8-E14.

6. Innovation in Canada, "Case 7, Research in Motion."

7. Lloyd Sandelands and Robert Drazin, "On the Language of Organization Theory," *Organization Studies*, 10, issue 4 (1989), 457-478.

8. Herbert E. Simon, "Organizations and Markets," *Journal of Economic Perspectives,* 5 (1991), 25-44.

9. Richard Daft and Karl E. Weick, "Toward a Model of Organizations as Interpretation Systems," *Academy of Management Review*, 9, no. 2 (1984), 284-295.

10. Susan Case and Tojo Thatchenkery, "Market, Enactment, and Learning from Ambiguous Events: A Case Study of a Small Investment Firm," paper presented at the Entrepreneurship Division of the National Academy of Management, Cincinnati, Ohio, August 9-14,1996.

11. Karl E. Weick, *The Social Psychology of Organizing*, 2nd ed. (Reading, MA: Addison-Wesley, 1979), 147-156.

12. Gary Hamel and C. K Prahalad, "Corporate Imagination and Expeditionary Marketing," *Harvard Business Review*, July-August 1991, 3-11.

13. Case and Thatchenkery, "Market, Enactment, and Learning from Ambiguous Events".

14. Sony History, "Why No Record Function?" http://www.sony.net/Fun/SH/1-18/h2.html (accessed September 28, 2005).

15. Weick, *Social Psychology of Organizing,* pp. 149-150.

16. Weick, *Social Psychology of Organizing,* p. 149.

17. Case and Thatchenkery, "Market, Enactment, and Learning from Ambiguous Events".

18. David L. Cooperrider, "Positive Image, Positive Action: The Affirmative Basis of Organizing," in S. Srivastva et al, eds., *Appreciative Management and Leadership* (San Francisco: Jossey-Bass, 1990), 94.

19. C. Perrow, *Complex Organizations: A Critical Essay*, 3rd ed. (New York: Random House, 1986), 212.

20. Weick, Social Psychology of Organizing, p. 149.

21. Kenneth Gergen, *An Invitation to Social Construction* (Thousand Oaks, CA: Sage, 1999), 116.

22. Gergen, *An Invitation to Social Construction*, p. 116.

23. Gergen, *An Invitation to Social Construction,* p. 117.

24. Term coined by Thomas Kuhn in his book *Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962).

25. It is not just psychologists who have asked for generative theory in social sciences. Sociologists too have underscored the importance of it. For example, Lynn Smith-Lovin has pointed out that, as sociologists develop theories, they make a choice between the detail of accurate prediction and the generative nature of the theory. She argued strongly for the latter. Lynn Smith-Lovin, "Simplicity, Uncertainty, and the Power of Generative Theories," *Contemporary Sociology*, 29, issue 2 (2000), 300-307.

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27. Denning, Stephen, *The Springboard. How Storytelling Ignites Action in Knowledge-Era Organizations* (Boston: Butterworth & Heinemann, 2000), 55.

28. George Shaw, interview by author, August 16, 2005.

29. W. L. Gore & Associates, http://www.gore.com (accessed August 11, 2005).

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