



## THE MANAGEMENT DEVELOPMENT LEGACY OF ROBERT GREENLEAF

—JEFF MCCOLLUM  
STAR\*THROWER ASSOCIATES

—JOEL MOSES  
VALTERA CORPORATION

Robert Greenleaf's writings have inspired considerable thought and have been well documented. Robert Greenleaf's name will forever, and appropriately so, be linked with "servant-leadership"—something he wrote extensively about in his second career as author and consultant. Greenleaf's first career, the 38 years he spent with AT&T, left a legacy of rich innovation. At that time, the official name of the company was American Telephone and Telegraph. We will use AT & T, the contemporary identification, throughout this article. In Greenleaf's work there, we can find the antecedents to contemporary development endeavors such as coaching, "action learning," and assessment centers. Although Greenleaf's writing on servant-leadership has been reviewed in considerable detail, relatively little has been written regarding his impact on business and the legacy he left as Director of Management Research at AT&T. This article, focused on the assessment center in theory and practice, is designed to help fill in the voids in this area.

Greenleaf's work at AT&T integrates three broad thematic elements in his life. He began his formal college education by studying engineering at Rose Polytechnic in Terre Haute, Indiana. After a time spent in construction, he enrolled at Carleton College, where Oscar Helming, a sociology professor, challenged his students to get inside a large institution and make it more responsive to serving the public good. In a humorous and elegant



irony that harkens back to his days as a laborer, Greenleaf's own epitaph reads, "Could have been a great plumber. Ruined by too much education."

Taking up Helming's challenge, Greenleaf started work with Ohio Bell. Typical of how college graduates were indoctrinated in the Bell System at the time, he was initially given a job as a laborer on a construction crew. He quickly moved into a training role and asked to lead foremen conferences. Greenleaf describes this period as "the most formative experience in his adult life" During this experience, he began to think of himself as a "student of organization." From Ohio, he moved to AT&T's corporate staff in New York in the operations and engineering department. In 1941, he was appointed head of AT&T's management development section.

Practicality and applied science drove much of what he did. Today that orientation is coming back into the leadership/development literature as "evidence based management." Colleagues at AT&T remember him as "practical and focused, shunning what could be seen as academic" Although much of what is written about Greenleaf today creates a quality of *eminence grise* around him, his AT&T work focused on how things work and how to make them work better by applying the findings of work in academe.

This emphasis clearly emerges in his work with assessment centers. The technology, applied to specific business problems confronting AT&T, originated in the military during World War II, but it was Greenleaf who was able to take this technique and apply it to the world of business. Greenleaf's interest in how people develop and mature spawned a 30-year research effort, The Management Progress Study, within AT&T.

The study built upon work begun within AT&T in the late 1920s. The fact that any company undertook such a study in the 1950s and committed to it for 30 years stands as a testament to a much more stable business environment and Greenleaf's ability to influence. The study ended when AT&T divested its operating telephone companies in 1984 to end its anti-trust suit with the US government (Bray, Campbell and Grant, 1974; Howard and Bray, 1988).



## BACKGROUND OF THE MANAGEMENT PROGRESS STUDY

Recognizing that a major source of leadership talent could be attracted and retained by identifying college graduates and gradually exposing them to the workings of the telephone company, the Bell System in the 1920s began one of the first comprehensive studies to evaluate the success of college hires. Coincidentally, this study began at about the same time Bob Greenleaf joined AT&T from Ohio Bell, but also paralleled many of his later work achievements.

The recruitment study tracked over 3800 college hires and pointed out that college grades and class standing could predict salary and job success. Beginning with a trickle of managers in the 1920s, over 2000 college recruits were hired annually by the mid-1950s. While some of these recruits would pursue careers as technical specialists and scientists, most were expected to enter management roles and rise to middle and eventually upper levels in the Bell System. By the time Greenleaf came to AT&T's headquarters in New York City, a thriving program had been developed to both attract and retain this source of talent.

In the early 1950s a pioneering development program that exposed promising high-potential managers to a liberal arts curriculum was initiated at the University of Pennsylvania. Historically, this university had been one of the early pioneers in the young field of applied psychology, beginning with a seminal study on the selection of salesmen in the early 1900s. By the time Greenleaf had become Director of Management Research, this program had drawn young managers to a year-long liberal arts curriculum. When it proved too costly and unwieldy for the Bell System companies, a series of shorter programs were initiated at Dartmouth, Williams College, and Greenleaf's alma mater, Carleton College. These programs were the first serious attempts at broadening the perspectives of managers by exposing them to new ideas and a broader outlook than had been provided in their previous technical training. Today, continuing education programs based on this model are *de riguer* for colleges and businesses.



These programs continued for many years, shaping the development of high-potential managers, and were formalized as part of an Initial Management Development Program (IMDP) formed under Greenleaf's stewardship. Although young college managers became a major source of management talent, little was known about the factors that shaped their development. To better understand how AT&T and the Bell System developed these programs, we must first look at the seminal study that Greenleaf sponsored, the AT&T Management Progress Study.

#### THE MANAGEMENT PROGRESS STUDY

The roots of the Management Progress Study, a twenty-five-year longitudinal study of managerial lives, began during World War II. The Office of Strategic Services (OSS) under General Bill Donovan was responsible for selecting spies who could be introduced into Europe to assist resistance leaders fighting the Germans. Donovan's team turned to one of the very early American psychoanalysts, Dr. Henry Murray. Murray, a contemporary of Freud, was focused on conscious rather than unconscious determinants of personality. During the late 1920s he initiated groundbreaking research in the emerging field of personality development at his clinic at Harvard University, research that was described in a landmark book, *Explorations in Personality*, published in 1938.

As the United States was entering the war, Murray and his associates were commissioned to develop a special training school to select and train spies. They designed a series of exercises and simulations to screen candidates and over 5300 officers, enlisted personnel, and civilian volunteers participated in this process. After World War II, the results of this effort became public in a 1946 *Fortune Magazine* article entitled "A Good Man is Hard To Find," while more substantive details were provided in a book authored by Murray and the OSS Assessment Staff, *The Assessment of Men*, published in 1948.

Greenleaf brought this book and the *Fortune Magazine* article to the attention of AT&T's senior leadership during the 1950s. Noting that while



psychologists knew something about child development, little was known about how adults developed, particularly those entering business. Eventually Greenleaf received executive support for a highly visionary project that would dramatically change our understanding of leadership selection and development.

To head up this study, Greenleaf hired a young researcher, Doug Bray. Bray, a Yale Ph.D., was working at Columbia University on one of the many studies coming out of the personnel research generated during World War II. Building on the assessment exercises and simulations developed by the OSS, Bray and his colleagues launched the pioneering study that eventually shaped many of today's leadership practices.

Four hundred twenty-two young managers were studied, beginning with a sample of Michigan Bell Managers in the summer of 1956. The study participants either were brand new college recruits hired by one of the Bell Companies participating in the study, or were high-potential high school graduates who had started as craft workers and had been rapidly promoted to the first level of management.

To get a perspective on each participant's leadership capabilities, the study assessed each one individually at a specially created one-week assessment center, where 25 specific management attributes were evaluated (see Appendix). The assessment staff was composed of psychologists and managers who observed the participants and made these ratings. At the conclusion of each program, each participant was rated regarding his potential to reach middle management. Since the program was intended as research, these results were not shared with either the individual or his management.

Following the assessment, yearly follow-up interviews were also conducted with the participant and his management to assess career progress and to learn about his work and non-work activities. Eight years after the initial assessment, the group was reassessed in a parallel assessment center, again without feedback being provided to either the participants or their management. A third assessment center was conducted for those with the company 20 years after the initial assessment. Since the assessment results



would have no material impact on their careers at this stage in their lives, the findings were shared with the participants and feedback was provided, enabling a rich review of the participants' career progress. The results of this landmark study have been published extensively and have had a important impact on the identification and development of managers.

Two major, but divergent streams of knowledge emerged from this study and we shall consider each. From a developmental perspective, the key learnings during a manager's formative years were seen to make a significant impact on career success. At the same time, techniques that could accurately assess and predict subsequent talent were developed and put into place.

#### THE DEVELOPMENT OF MANAGERS

A key driver of the Management Progress Study was Greenleaf's insistence on identifying those factors that led to success in business. Along with this, he wanted to develop and install practices that would directly contribute to the development of talent. Although he believed, as most did at the time, that educational experiences were the primary precursors to success, Greenleaf also anticipated research that would emerge many decades later indicating that job experiences were also crucial, and at times, even more critical to management and executive development.

One of the most interesting findings of the Management Progress Study was concerned the managers: among all who were assessed as having middle management potential, career progress varied—ranging from little to exceptionally rapid upward promotional movement. In analyzing the data, a key finding emerged. Enriched career experience in the form of more challenging job assignments occurring early in one's career seemed to make a great deal of difference in the lives of these managers. Those, for example, who were given early job responsibility for independent action or encouraging early career visibility seemed to progress faster and further regardless of their assessed potential.

Building on this research, and continuing the earlier legacy of provid-



ing high-potential managers a liberal arts education, Greenleaf and his associates developed a highly innovative development program, The Initial Management Development Program. This program, eventually widely copied by most of industry, provided a framework for development during the managers' formative years in the company.

Participants in the program were hired with the expectation that they would reach middle levels of management quickly—in ten years or less, a rate of progress that in the Bell System of the 1960s was considered exceptionally rapid. Those not progressing at a pace comparable to that of their peers were either dropped from the program or terminated from the company. As such, it was a high-risk, high-reward program. To aid in the managers' development, rotational assignments were provided and monitored. They were exposed to several different departments during their first 2-8 years in business, affording them a wide exposure to both leaders in different organizational settings and a perspective on broader business issues. Along with the rotational program, formal training was provided—either derivatives of the liberal arts programs noted above, or company-sponsored programs using college faculty.

The Initial Management Development Program continued for many years following Greenleaf's retirement in 1964. It paved the way for enriching the development of thousands of managers in the Bell System, and, through its adoption by virtually every major US corporation in some form or another, the development of literally the next generation of business leaders. Integrating classroom learning with on-the-job developmental experiences, it served as a valuable adjunct to more formal educational experiences initially provided by a few business schools that eventually spawned an entire industry of adult development.

#### THE SELECTION OF MANAGERS

One of the more significant findings of the Management Progress Study was the strong correlation between predictions made by the assessment center staff regarding further managerial potential, and the actual pro-



gress of these managers. This led to another of Greenleaf's pioneering legacies—the use of assessment centers to select and develop managers.

For those not familiar with the workings of an assessment center, it is a process designed to ensure the objectivity and standardization of judgments about potential. Used for both selection and development, it engages participants in activities that are not normally observed on the current job but that are critical for more demanding assignments at higher levels in the organization. To measure performance, behavioral simulations that mirror issues faced by the host organization are used. These consist of individual and group problem solving tasks; individual and group analytic exercises along with special interviews; interactive exercises with customers, subordinates or peers; and other specially constructed activities that reflect the behavioral demands in the target assignment. The participant's performance is observed by a team of professional assessors consisting of managers or psychologists trained to apply these techniques. A typical center lasts from 1-3 days, with feedback given to both the participant and his or her management that provides targeted developmental actions based on the performance during the center. As of today, millions of participants have been assessed worldwide, with considerable research documenting the fairness and accuracy of this technique.

Returning to the Management Progress Study for a moment to learn more about the origins of this technique also illuminates another facet of Greenleaf's sponsorship of ideas. Applied research typically looks for immediate translation of scientific findings to practice, often contaminating what may be exceptionally valuable insights in management's zeal to use a promising process that can quickly enhance business results. Longitudinal research, spanning decades, minimizes these problems, but is both costly and exceptionally hard to sell in a forward-moving business environment. To Greenleaf's credit, he was able to convince senior management of the long-term benefits of conducting such a study, with the result that among behavioral research conducted over the last 100 years, the Management



Progress Study stands out as one of the luminary events in the development of managers.

Since the findings of this research had not been shared with either the participants or their management, these findings became even more powerful. There had been no contamination of results that could have either inadvertently or directly impacted their progress. In this way, the validity of the assessment center method was initially established.

Well before the study results were obtained, however, there was considerable interest in this technique, and Greenleaf and his associates were able to parley the need for rapid implementation of new processes while keeping the study viable for over 25 years. Managers visiting the Management Progress Study Assessment Center asked whether the process could be modified from a research to an operational program, and in 1958 the first business application used for the selection of foremen was instituted. Ultimately, over the course of the next decades, over 200,000 men and women would participate in one of the Bell System's 50 operational assessment centers established throughout the United States.

Greenleaf also encouraged "giving science away," and the researchers at AT&T quickly shared their knowledge with contemporaries in other organizations. Companies such as IBM, Standard Oil (Now BP), and Sears were among the first after AT&T to adopt this process. By 1969 there was such considerable interest in this technique that a group of researchers and practitioners formed the Assessment Center Research Group, which not only shared practices, but also created a set of ethical standards concerning the use of assessment centers that has since been adopted by the field.

Applications of Assessment Centers moved from business to education, and the first widespread use of assessment centers as a key element of an educational curriculum was established at Alverno College in Milwaukee, a nationally recognized Catholic liberal arts college for women. Greenleaf had extensive interaction with Alverno, specifically its president, Sister Joel Reed, who, in turn, has pioneered radical ideas like learning contracts between the college and the student.



A very interesting sidelight links Greenleaf's role across many diverse institutions. Key leaders of Alverno, including its president, Sister Reed (who eventually became a board member of the Greenleaf Center for Servant-Leadership), came to AT&T to learn about this technique. Coincidentally, the first of the AT&T books describing the Management Progress Study, *Formative Years in Business*, had just been published with its dedication to Robert Greenleaf. The Alverno team pointed out how Greenleaf's *Servant Leadership* was a key inspirational reading to their Order, quickly cementing the bond between the AT&T staff and particularly, these authors, to creating a continuing relationship with this institution for almost 30 years.

As assessment centers continued to be used in both educational and business settings, considerable research evolved regarding the value of this technique, including the landmark book, *Applying the Assessment Center Method* (Moses and Byham, 1977). Eventually this technique received considerable academic credence, and over 1,000 scientific and technical studies worldwide have been published.

There are assessment centers used on every continent in the world, in diverse settings such as business, education, government, law, and professional practice. It has become one of the most dominant and widely respected techniques for identifying and developing talent—in large part due to the pioneering vision of Robert Greenleaf. From this perspective, an important insight becomes readily apparent: the powerful extension of Greenleaf's foresight regarding human development and the nature of talent now accompanies the daily life of businesses and other organizations throughout the world.

#### THE EMPOWERMENT OF MANAGERS

Greenleaf's impact on the practice of selecting and developing managers emerged though his role at AT&T during a critical period as the company emerged as one of the premier business leaders of the twenty-first century. Although he provided the leadership spark, his efforts came to



fruition in part due to his capacity to select a team of researchers who could implement and expand on his ideas, but also in part due to the trust and respect he earned from AT&T's key business leaders.

However, a more enduring contribution, directly associated with Greenleaf, is the concept of empowerment. Derived from his writings about servant-leadership, empowerment focuses on creating a work climate in which diverse ideas are both respected and encouraged. Hierarchical organizations, built on the military model of the 1900s stressing rigid organizational structures with clear spans of control, have given way to less formal structures that focus more on leaders providing the resources for work to get done via a span of support.

The Bell System of Greenleaf's era was a stable bureaucracy with clearly defined management roles, a set of operating procedures, and considerable standardization. Working within this framework, Greenleaf anticipated many of the social and organizational changes that mirror today's global workplace. His work correctly, in our view, anticipated significant changes that have been taking place in organizations. Bartlett and Ghoshal (2002) described the strategic shift from a focus on financial resources (1970s and 1980s) to organizational capability in the late 1980s and early 1990s to a focus on human and intellectual capital. Greenleaf's focus on the development of human capital was radical when he was writing. It has been estimated that it takes a generation for a true innovation to become commonplace. Greenleaf's innovations in management development have helped shape the work of all of us working in the field today.

Robert Greenleaf emerged as one of the key leaders in the areas of management education, selection, and development. Characteristically modest, he left it to others to write and expand on his seminal ideas. His direct impact on the role of Liberal Arts Education in business through an emphasis on development as a lifelong process that matters, spawned today's market for adult education—both through company-sponsored Advanced Management Programs and through many university-based learning initiatives. His role in establishing the Management Progress



Study demonstrated how managers actually develop over time, as well as the role of assessment centers as a viable selection technique that encourages rigorous selection and development practices.

Finally, the concept of empowerment is directly attributable to his writings, and in this manner, Greenleaf left a major mark on contemporary business practices—in leadership and in the development of human capital, but as importantly, in creating the types of corporate cultures that in today's world are key bridges to international success.

---

Jeff McCollum, MSOD, is an organizational development practitioner based in Phoenix. He consults in the areas of organizational development and leadership development. Before establishing his own consultancy, Star\*Thrower Associates, he worked for AT&T, Warner-Lambert, and Pfizer. He is a former member of the Greenleaf Center for Servant-Leadership's Board of Trustees.

Joel Moses has been actively involved in assessing and developing leadership talent for over 40 years. At AT&T he was responsible for establishing and directing its Advanced Management Potential Assessment Center and directed its Management Selection and Development Research Unit. From 1989 to 2006 he was President and Managing Director of the Applied Research Corporation, a firm specializing in identifying leadership talent. He recently joined the Valtera Corporation as a Senior Practice Fellow. A frequent contributor to the literature on assessment centers, his book, *Applying the Assessment Center Method* (with Bill Byham) was one of the first describing this method. Joel has an MBA (CUNY) and a Ph.D. (Baylor University). A Fellow of the Society of Industrial and Organizational Psychology, he received its prestigious Professional Practice Award in 2000.



## APPENDIX

### MANAGEMENT PROGRESS STUDY VARIABLES

- Scholastic Aptitude (General Mental Ability)
- Oral Communication Skill
- Human Relations Skills
- Personal Impact
- Perception of Threshold Social Cues
- Creativity
- Self-Objectivity
- Social Objectivity
- Behavior Flexibility
- Need Approval of Superiors
- Need Approval of Peers
- Inner Work Standards
- Need Advancement
- Need Security
- Goal Flexibility
- Primacy of Work
- Bell System Value Orientation
- Realism of Expectations
- Tolerance of Uncertainty
- Ability to Delay Gratification
- Resistance to Stress
- Range of Interests
- Energy
- Organization and Planning
- Decision Making

From: Bray, Campbell and Grant, *Formative Years in Business: A Long Term AT&T Study of Managerial Lives*, New York: Wiley (1974), pp. 18-20.



#### REFERENCES

- Bray, D.W., Campbell, R.J., & Grant, D.L. (1974). *Formative years in business: A long-term AT&T study of managerial lives*. New York: Wiley-Interscience.
- Bartlett, C.A., & Ghoshal, S. (2002, Winter). Building competitive advantage through people. *MIT Sloan Management Review*, 33-41.
- Howard, A., & Bray, D.W. (1988). *Managerial lives in progress*. New York: Guilford Press.
- Moses, J.L., and Byham, W.C. (1977). *Applying the assessment center method*. New York: Pergamon Press.