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Stewart I. Donaldson
Claremont Graduate University

Michelle C. Bligh
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A hallmark of modern societies is the centrality of work and work-related activities (e.g., preparation for work and careers). Most adults are expected to spend the majority of their waking hours engaged in work- or career-focused endeavors into the foreseeable future (Donaldson, Gooler, & Weiss, 1998). A large body of research now suggests that work and careers are of primary importance, both socially and personally, for individuals across the globe. For example, the nature of one's work often imposes a schedule and structure on one's life, establishes patterns of social interaction, dictates economic status and well-being, provides others with a means of judging one's status and personal worth, and consequently becomes a major determinant of healthful adjustment and overall quality of life (Donaldson & Weiss, 1998). These conditions present psychologists with an array of settings to use psychological science to promote human welfare.

As was discussed in chapter 1, international and national associations of psychologists have made the improvement of work and work life a top priority in recent years. For example, the Work and Organizational Psychology Division of the International Association of Applied Psychologists spearheads activities to enhance the collaborations between those who, in different countries, devote themselves to scientific study in the field of work and organizational psychology (see International Association of Applied Psychology, 2005). Productivity in the workplace is one of the broad areas where psychological science desires to make substantial contributions as

part of the American Psychological Society (APS) endorsed national research agenda, "The Human Capital Initiative" (American Psychological Society, 2004). Furthermore, Division 14 of the American Psychological Association now has more than 6,000 members dedicated to applying psychology in the workplace (Society of Industrial and Organizational Psychology, 2005a). Favorable career opportunities and salaries promise to attract many more psychology majors in the coming years to pursue careers that involve applying psychology to improve the world of work (see Fennell, 2002).

THEORY, RESEARCH, AND APPLICATION

Behavioral scientists have a long history and impressive track record of using psychological science to improve quality of work life, human performance and productivity, and organizational effectiveness. From Frederick Taylor's early efforts developing principles for maximizing human efficiency at work, to Elton Mayo's research at the Western Electric Company illustrating the impact of social factors at work, to the selection and training of Army recruits during World Wars I and II, to the group dynamics, team building, and organization development work of Kurt Lewin, the relevance of applying psychological principles and research to improve quality of work life and organizational effectiveness has been well established (see Cummings & Worley, 2005; Landy & Conte, 2005; Riggio, 2003).

As the field has evolved and matured, the list of topics and pressing research questions has expanded beyond easy summation. A common framework that can be used to begin to understand psychological issues at work is to examine theory, empirical research, and applications across pressing and popular topics facing workers and work organizations in the 21st century. Behavioral scientists typically build theories of organizational behavior based on systematic research findings (utilizing both quantitative and qualitative research) and on grounded observations of various types of work and organizational behavior. Theories supported by sound empirical research are often applied to the development of programs, policies, or change interventions. These organizational development interventions frequently focus on the dual purposes of improving the quality of work life and organizational effectiveness (Cummings & Worley, 2005; Donaldson, 2004). Theory-driven and research-based human resource and organizational improvement efforts can be evaluated using state-of-the-art evaluation science approaches, and evaluation findings can be used to continually improve and institutionalize these positive change efforts. Evaluation findings can also be used to confirm, reject, or refine theories of organizational behavior. One of the most important goals of the applied psychological scientist in the 21st century will be to

further our understanding of how best to maximize the intersection of worker well-being and organizational effectiveness.

APPLYING POSITIVE PSYCHOLOGICAL SCIENCE

There has been considerable discussion and emphasis placed on positive psychology and positive applications of psychological science in recent years (Aspinwall & Staudinger, 2003; Carr, 2004; Compton, 2005; Kauffman & Scoular, 2004; Nakamura & Csikszentmihalyi, 2003; Seligman, 2003; Seligman & Csikszentmihalyi, 2003). The basic thrust of this new theme is to encourage psychological scientists to increase the number of research efforts, interventions, and programs directed at enhancing human well-being and optimal functioning. The main idea is to expand the knowledge base about developing positive human strengths to complement the strong tradition of problem or deficit-based psychological science.

The recent move within psychology toward increasing the amount of research in areas of understanding human strengths and optimal human functioning has many predecessors and comrades. For example, models of occupational health promotion and wellness have similar foci. In the areas of workplace health promotion and wellness, there is a wealth of research and interventions focused on moving workers up the Illness-to-Wellness Continuum shown in Fig. 14.1 toward optimal human functioning (see Donaldson, Gooler, & Weiss, 1998). That is, research and interventions in these areas focus on moving workers from the neutral point of the absence of illness toward optimal physical and mental health, as opposed to moving those who are showing signs or symptoms of illness toward the neutral point (a traditional objective of clinical and counseling psychology). Research in other areas such as enhancing developmental assets (Lerner, 2003), protective factors (Hawkins, Van Horn, & Arthur, 2004; Werner, 2000), resiliency and hardiness (Friedman, chap. 10, this volume), positive models of organizational development and scholarship (Cummings & Worley, 2005; Cameron, Dutton, & Quinn, 2003), the search for best practices (Chapman, 2004; Geringer, Frayne, & Milliman, 2002; Harris, 2005), new positive measurement tools (Lopez & Snyder, 2003) and research methods such as appreciative inquiry (Cooperrider & Avital, 2004; Preskill & Coghlan, 2003) and the success case method (Brinkerhoff, 2003) all represent examples of shifts away from traditional problem- or deficit-based conceptual frameworks, to strength-based or optimal functioning conceptual orientations.

Applied psychological scientists who focus on work issues are well positioned to frame organizational issues and research in a positive or appreciative manner (Cameron, Dutton, & Quinn, 2003; Cooperrider, Whitney, & Stavros, 2003; Preskill & Catsambas, in press), thus realizing some of the

Death ——————————————————————

High —— Risk of Disease —— Low

Low —— Intellectual Functioning —— High

Low —— Physical Fitness —— High

Low —— Emotional Fitness —— High

Low —— Energy Levels —— High

Low —— Coping Ability —— High

Optimal
Mental
and
Physical
Health

Disability
(irreversible)

Disability
(reversible)

Symptoms
of
Illness

Signs of
Illness

Illness

Neutral Point
(absence of illness)

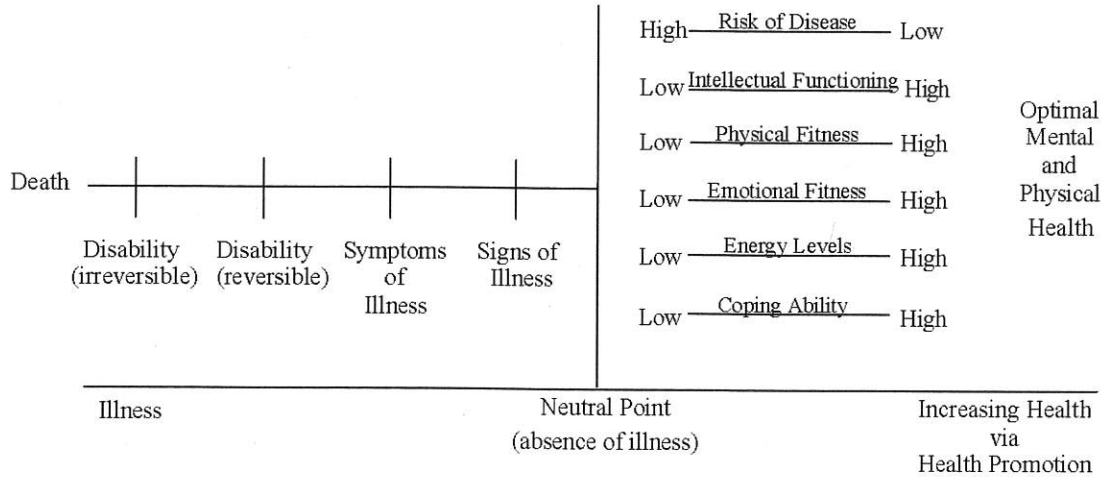Increasing Health
via
Health Promotion

FIG. 14.1. The Illness-to-Wellness Continuum. *Note.* From *Occupational Health Promotion: Health Behavior in the Workplace* (p. 7), by G. S. Everly and R. L. Feldman, 1984, New York: John Wiley. Reprinted with permission.

fruits and potential of applied positive psychology (Aspinwall & Staudinger, 2003; Seligman & Csikszentmihalyi, 2000). For example, applied psychologists commonly work on topics focused on enhancing human potential and organizational success such as best ways to:

- Maximize person–job–organization fit and optimal functioning through rigorous selection, socialization, and training programs;
- Build optimal team performance;
- Develop organizational leaders;
- Provide effective mentoring and coaching;
- Support career development and planning;
- Foster and capitalize on diversity and cross-cultural relationships;
- Optimize work and family balance;
- Create healthful work environments through comprehensive wellness programs;
- Promote organizational learning and continuous improvement;
- Inspire and facilitate positive organization development and strategic change.

Although the vast majority of applied psychological science focused on work has traditionally occurred in corporate or for-profit business settings, an exciting trend in recent years has been the rapid expansion of organizational development and applications of positive psychological science toward improving not-for-profit, human service, educational, government, health care, and community-based organizations (Cummings & Worley, 2005; Donaldson, 2004). For example, not-for-profit human service organizations such as schools, universities, health promotion and counseling clinics, and organizations that specialize in personal and career development, often set as their mission and purpose to enhance the well-being and optimal functioning of their clients. That is, organizational effectiveness in these organizations is often defined and measured by the extent to which these organizations successfully improve and promote optimal human functioning. In fact, Hansfeld (1983) proposed a typology that conceptualized these processes as "people changing technologies" aimed at altering the personal attributes of people in order to improve their well-being and functioning. Applied psychological scientists have an important role to play in designing and evaluating the success of people changing technologies, and in developing and creating effective human service organizations more broadly.

Globalization, new models and concepts of management and leadership (see Bligh & Meindl, 2004), and advances in information technology are also

creating new opportunities for positive applied psychological science (Donaldson & Weiss, 1998). For example, research efforts to understand how to best enhance and benefit from workforce diversity, cross-cultural collaboration and communication, new models of leadership development, and new work arrangements such as telecommuting and virtual teams are underway (e.g., see Igbaria & Tan, 1998; Pearce & Congor, 2003; Riggio & Orr, 2004; Sternberg, 2003). These efforts are typically focused on how best to maximize human well-being and performance in global and virtual workplaces. Careers that involve improving work life, job performance, and organizational effectiveness are likely to provide many opportunities in the years ahead for increasing the application of applied positive psychological science toward promoting human welfare across the globe.

TRAINING OPPORTUNITIES

As presented in chapter 1, the discipline and profession of applied psychology has matured in a way that has provided a wide range of training options for the next generation of psychological scientists. Although there are many possible paths to becoming equipped to contribute in this area, psychology master's and doctoral programs that provide training and concentrated study in organizational behavior, human resource and organizational development, industrial/organizational psychology, applied social psychology, and applied research methods and evaluation provide some of the best options for undergraduate psychology majors. Programs in these areas often emphasize and provide a range of coursework and practical experience geared toward building critical areas of competence for applying positive psychology in work or organizational settings.

For example, Table 14.1 provides a sample of the types of competencies that applied psychology training programs often strive to develop in preparing psychological scientists to work in organizational settings. These areas of competency ensure that applied psychological scientists have a strong background and understanding of the history and recent developments in the discipline and profession of psychology, very strong evaluation, critical thinking, and systematic inquiry skills, professional skills essential for working in a range of organizational settings, and both a breadth and depth of content knowledge in key domains. Various clusters of these competencies are typically developed at both the master's and doctoral levels through formal coursework, supervised research and experience, independent readings/study, internships and on-the-job training, professional development workshops, modeling, mentoring, and coaching (see Society of Industrial and Organizational Psychology, 2005b). As noted in chapter 1, the American Psychological Association provides a list of graduate pro-

TABLE 14.1
Areas of Competence to Be Developed in Applied Psychological Scientists Preparing to Work in Organizational Settings

Foundations

History and Systems of Psychology
Fields of Psychology (including new developments in positive psychology)
Organizational Theory: Micro to Macro
Human Resource and Organizational Development: Theory & Research
Basic Research Methods
Statistical Methods/Data Analysis
Applied Research Methods & Evaluation Science: Qualitative & Quantitative
  Criterion Theory and Development
  Personnel Evaluation
    Personnel Recruitment, Selection, and Placement
    Performance Appraisal and Feedback
  Program Evaluation
    Human Resource Development: Theory, Program Design, and Evaluation
    Organization Development: Theory, Program Design, and Evaluation
Ethical, Legal, and Professional Contexts of Applied Psychology
Consulting and Business Skills

Some Key Topic Areas

Career Development
Health and Stress in Organizations
Leadership and Management
Small Group Theory and Team Processes
Work Motivation
Judgment and Decision Making
Human Performance/Human Factors
Individual Assessment
Individual Differences
Job Evaluation and Compensation
Job/Task Analysis and Classification
Attitude Theory, Measurement, and Change
Consumer Behavior

Note. Expanded version of American Psychological Association Division 14 Graduate Training Guidelines (Society of Industrial and Organizational Psychology, 2005b).

grams that offer training in applied psychological science on its Web site (American Psychological Association, 2005a).

CAREER OPPORTUNITIES

Options for psychological scientists who develop concentrations in organizational behavior, industrial/organizational psychology, applied social psychology, human resource management, and organizational development

promise to remain very favorable during the next decade (Donaldson & Berger, chap. 1, this volume). Expertise in these areas typically provides professionals great career flexibility, the ability to seek diverse jobs and experiences, upward mobility, and the opportunities to work for multiple organizations in various locations across a career. For example, with these specializations one often has the ability to work in one or more of the following occupations across a career:

1. Internal Organizational Researcher, Consultant, or Educator
2. External Organizational Researcher, Consultant, or Educator
3. Founder and/or Leader of an Organization
4. College or University Professor or Administrator
5. Research Scientist

Although the range of specific job titles for applied psychological scientists in these areas has grown dramatically in recent years and is beyond simple classification and description (see American Psychological Association, 2005b; Donaldson & Berger, chap. 1, this volume), Table 14.2 provides a sample of common job titles for psychologists specializing in improving quality of work life and organizational effectiveness. The development and application of positive psychological science to build better organizations and to promote worker well-being and performance are common themes that can be used to describe many of the day-to-day work activities that holders of these jobs typically engage in.

TABLE 14.2
Sample Job Titles of Applied Psychologists Specializing
in Quality of Work Life and Organizational Effectiveness

Professor of Psychology, Management, Organizational Behavior, and Industrial Relations
Research Scientist
Research Psychologist

Corporate Vice President, Director, Manager, Staff Member of

Organizational Development, Organizational Effectiveness, Management Development, Human Resources Research, Employee Relations, Training and Development, and Leadership Development

President, Vice President, Director of

Private research, consulting companies, and organizations of various types including not-for-profit, human service, educational, government, health care, and community-based organizations

Note. Modified version of American Psychological Association Division 14 Sample Job Titles Document (Society of Industrial and Organizational Psychology, 2005c).

Detailed descriptions of the numerous job and career opportunities that now exist for applied psychological scientists specializing in improving quality of work life and organizational effectiveness are beyond the scope of this chapter. However, in an effort to provide readers with a somewhat realistic account of what it would be like to work in some of the most common occupations today, brief descriptions of the jobs of Human Resource Recruiter or Headhunter, Director of Organizational Development, Executive Coach and Leadership Development Expert, Occupational Health Psychologist, External Change Management Consultant, and Human Factors Psychologist are provided next. These brief career summaries illustrate the broad range of research methodologies, statistical tools, and theoretical content that applied psychologists draw on when faced with new and complex organizational issues. This sampling of careers highlights the varied paths and opportunities available to do interesting work, continually develop new skills, and experience the way positive psychology is applied in the "real world" across a broad range of settings.

Human Resource Recruiter or Headhunter

Most people are all too familiar with the traditional job-hunting strategy, which includes perfecting your resume, scouring the want-ads, mailing out cover letters and resumes, and networking with friends and colleagues to get that important first phone call or interview. Increasingly, both organizations and employees are circumventing this traditional process. Instead, companies are saving time and energy by drawing on the skills of professional headhunters and recruiters. These skilled professionals apply psychological methods of psychometrics, testing, and evaluation to find the best qualified candidates and to match them to positions in which they are likely to thrive and excel.

Headhunters are generously compensated for their ability to consistently pick the right person for the right job, and their success is not due to luck, intuition, or a "shotgun" approach in which candidates with varied skills are targeted. The success of headhunters, and their ability make the perfect match again and again, is directly linked to their thorough training in principles of applied psychology. A good headhunter has a tremendous edge, as he or she combines the science of selection with extensive organizational research. This approach leads to a thorough understanding of the hiring organization's culture, strategy, structure, leadership, and characteristics of the job itself. Unfortunately, this type of diligence, or a thorough understanding of both the individual and the organization, is typically lacking on both sides of the traditional job-hunting and selection process.

The headhunter starts with a job analysis to develop a detailed understanding of both the immediate functions of the position as well as the con-

textual environment in which job duties take place. Understanding techni-
cal aspects of the position, key aspects of the business, and the vocabulary
of the industry helps to identify prospective candidates and give them a re-
alistic job preview regarding what to expect from a position. Headhunters
often conduct in-depth, face-to-face interviews and focus groups with mem-
bers of the organization's management and work teams. The goal of these
interactions is to understand key dimensions of the organization's struc-
ture, management style, working environment, and business strategy.
Based on this information, the headhunter specifically defines the posi-
tion's scope of responsibility and identifies required Knowledge, Skills, and
Abilities (or KSAs; American Educational Research Association, American
Psychological Association, & National Council on Measurement in Educa-
tion, 1999). He or she subsequently compiles and communicates this infor-
mation back to the organization for additional feedback.

To identify the most qualified candidates, headhunters rely on the sci-
ence of psychological measurement and assessment to obtain an in-depth
profile of each client's personality characteristics, preferences, behavioral
competencies, and other dimensions of person–organization fit. In addition,
individual interviews are conducted with each client in order to assess ex-
periences, preferences, skills, and integrity. To facilitate the interviewing
process, the headhunter submits summary reports or a "short list" to the
organization covering the final candidates' track records, history, core
traits and values, and an assessment of their potential for overall "fit" with
the organization. Finally, many headhunters assist both parties in conduct-
ing the final negotiations concerning compensation, benefits, and other job
characteristics as an impartial, objective outsider. The relationship is not
terminated there, as headhunters often maintain consistent communication
with the placed candidate and his or her manager to identify potential diffi-
culties and facilitate their resolution throughout the adjustment process.
The ultimate goal of the Human Resource Recruiter or Headhunter is to
maximize person–job–organization fit, optimal functioning, and well-being
through rigorous evaluation and selection procedures.

Director, Organizational Development

One of the most difficult problems organizations face is fostering and man-
aging change. Only a small proportion of change efforts actually succeed, a
fact that has led to an entire industry of "fad" change models but also pro-
vides unique opportunities to psychologists trained in the area of Organiza-
tional Development (OD). An OD Director's work focuses primarily on the
alignment of various interrelated organizational systems. Any large-scale
change effort creates "ripple effects" that impact nearly every aspect of the

organization. For example, human resource systems, including selection
processes, job design, rewards and compensation, performance apprais-
als, and training and development must align with and support desired
changes. Less obvious, but no less important, are the changes required in
other systems. For example, financial management systems may also need
modification through the realignment of budgeting and resource allocation
processes to free up needed resources. Management Information Systems
(MIS) often need to be modified or redesigned to measure and track new
practices and allow access to relevant data. Organizational structure and
design may also be altered: Layers of management may be increased or re-
duced and organizational roles often change. As an OD Director, responsi-
bilities include coordinating with change agents in each of these systems
in order to foster alignment among all of these interacting elements of the
organization.

An Organizational Development Director may draw on psychological
models such as Lewin's force field analysis (Cummings & Worley, 2005;
Lewin, 1951) to guide the organization through the change process. A force
field analysis involves identifying both internal and external driving forces
for change (i.e., a leader's vision, interdepartmental conflict, a changing
customer base, competitive pressures, or new product development) as
well as restraining forces (i.e., managerial resistance to loss of control,
skepticism based on prior failures of change initiatives, or staffing short-
ages that prevent extensive training). This analysis allows the OD Director
to further identify which driving forces may be strengthened, as well as
which restraining forces may be eliminated, diminished, or counteracted.
Overall, if it appears that driving forces are strong enough to move back re-
straining forces, the change effort may be feasible and worth pursuing. The
next step is the development of a detailed change plan, including implemen-
tation tactics designed to move the relevant forces.

OD Directors spend a great deal of their time applying the science of psy-
chology at the individual, team, departmental, and organizational levels of
analysis. Job responsibilities are dynamic and multifaceted. Other sample
project assignments may include designing and implementing system-wide
assessments targeting topics such as organizational culture, climate, or job
satisfaction. OD Directors also lead their teams through the process of com-
piling survey results, defining areas for longitudinal improvement tailored
to the organization, and developing a communication plan in order to dis-
seminate the results to multiple audiences. This communication strategy
may include creating executive presentations for top management, facilitat-
ing town hall meetings with various employee groups, monitoring the con-
tent of the company's Web site, and designing monthly newsletters and ex-
ternal press releases.

Executive Coaching and Leadership Development

Executive coaching is a relatively new leadership development intervention that has become an increasingly popular way for organizations to develop their existing leadership capital. Realizing that good leadership is critical to achieving and maintaining high levels of performance, organizations spend billions of dollars annually to internally train and develop their leaders. In an increasingly dynamic and complex global economy, leaders need to be proficient in an ever-larger set of skills, including collaboration, teambuilding, strategy formulation and implementation, communication to a wide variety of stakeholders, and cognitive skills such as problem definition, solution generation, and problem solving. Executives are often promoted into leadership positions based on their superior technical skills, yet success in higher levels of management requires a completely different skill set and leadership style. All too frequently, leaders are given little training or guidance in how to make this transformation. As a result, organizations are increasingly hiring executive coaches, who are generously compensated to help executives develop the skills that are predictive of success at higher levels.

Executive coaching is broadly defined as a one-to-one counseling relationship between the professionally trained coach and a leader. The primary purpose of the relationship may vary, but generally centers around improved organizational performance, leadership development, the improvement of top management team performance, as well as promoting the optimal functioning and well-being of the leader. Executive coaches draw on a range of psychological methods in their work, which is a developmental process that frequently includes on-going phases of assessment, feedback, planning, implementation, and follow-up. Assessments include a wide variety of psychological measurements, including personality and behavioral competencies, hypothetical decision-making scenarios, "stretch" exercises, interviews, and 360° feedback involving peers, teammates, and subordinates. Planning of specific interventions, based on data gathered during this initial assessment phase, is usually a collaborative effort between the executive and coach. Together, the two parties agree on a detailed implementation strategy, which may take place over months or even years, with scheduled follow-ups to assess the executive's progress and to make interim modifications if necessary.

More broadly, psychologists assist organizations in a wide variety of leadership development functions, with formal titles in the areas of Training and Development, Leadership Development, and Managerial Effectiveness. This type of leadership development often includes larger groups of leaders at all levels of the organization and encompasses many activities, including skill building, performance enhancement, career development,

and individualized coaching for a manager's change strategy. Tasks may also entail program development to assess current managerial competencies within the organization and identify key internal and external talent needed to achieve a high performing leadership team. In addition, using research on managerial traits and skills as a guide, leadership development may require tailoring existing measures of managerial competencies to the unique culture and context of the organization and the industry. Tools may include questionnaires, interviews, focus groups, and 360° performance assessments, which allow the creation of personalized feedback to each manager, and specially designed surveys to target and track specific competencies by organizational level and department. The results, compiled by work site, can be used to develop a longitudinal leadership development program, where managers are brought together to hear prominent leadership speakers, further assess their own strengths and weaknesses as leaders over time, and develop detailed individualized leadership goals for further development between meetings.

Occupational Health Psychologist

Current demographic and sociological trends have fostered the growth of another emerging area that draws on positive applied psychological science—Occupational Health Psychology (OHP). The National Institute for Occupational Safety and Health (NIOSH) defines OHP as a field concerned with "the application of psychology to improving the quality of work life and to protecting and promoting the safety, health, and well-being of workers" (National Institute for Occupational Safety and Health, 2005). Today's organizations are increasingly comprised of older, more diverse populations, who spend a much longer portion of their lives in the workforce. At the same time, the structure of work itself, and the dimensions of compensation that make work attractive, have undergone significant changes. Improvements in public health, sanitation, and advances in microbiology, together with changes in population demographics and lifestyle, have also contributed to fundamental changes in the workforce. Taken together, these trends have dramatically altered traditional views of workplace health and safety, and have generated a new area of psychology that specifically focuses on ways to maximize worker wellness and productivity.

The major health risks that the American workforce faces have shifted markedly over the last century, from viral and bacterial epidemics to chronic degenerative diseases (e.g., coronary heart disease, cancer). Many current health risks are closely associated with lifestyle factors such as dietary habits, physical activity, and exposure to environmental toxins and stressors. Moreover, the threat of accidents in the workplace can be di-

rectly linked to psychological issues such as stress, fatigue, and compliance with safety initiatives. Underlying all of these threats to worker wellness and productivity is the important role of prevention as an effective organizational intervention.

Spanning the areas of clinical psychology, human factors psychology (see below), and industrial and organizational psychology, OHP addresses issues of prevention and intervention through research on a wide range of issues that are broadly associated with health and wellness in the workplace. Specific topics include workplace environment assessments, equal employment opportunities and affirmative action issues, job analyses and training needs assessments, workplace violence, assessment and management of organizational stress, mental health in the workplace, and organizational risk factors for illness. In addition, research in the field examines issues concerning how changing organizational structures and processes influence the health and well-being of workers and their families, and interactions among the work environment, the individual, and work–life balance are frequently addressed. For example, an OHP might study the relationship among occupational stress, safety, and demographic and sociological variables (e.g., race/ethnicity, gender, age, sources of social support). OHPs also work to develop and implement programs to enhance safe work behaviors and prevent or reduce the risk of occupational illness and injury. Using their training in research methods, statistics, and epidemiology, OHPs may also evaluate the social and economic costs of occupational illness and injury, and provide recommendations for how to alter employees' perceptions of health risks and adherence to safety regulations through communication and training.

External Change Management Consultant

As an independent change management consultant, training in applied psychological science opens up opportunities to work with companies in critical transitional periods, such as immediately following a corporate merger or acquisition (M&A). Organizations confront a wide variety of issues, including a changing corporate identity, communication difficulties, human resource problems, and intergroup conflicts in the aftermath of a merger. As a result, organizations often utilize external consultants to guide them through the difficult and potentially painful process of postmerger integration. A background in applied psychological science provides the change management consultant with a theoretical framework for understanding and managing the complicated process of bringing together groups from very different organizations and businesses. Outcomes such as lowered trust, commitment, satisfaction, and productivity, as well as increased absenteeism, turnover, and attitudinal problems, can be mitigated through

the application of a broad range of theories in work and organizational psychology.

Prior to the M&A, change management consultants meet with top executives and human resource leaders of both companies, focusing specifically on ways to manage the large-scale integration of one or more organizations and the resulting implications for employees. Transformation initiatives often entail multiple stages of strategy development, interim or transition management, how to align various stakeholders (i.e., employees, stockholders, customers, and vendors) around the new structure and strategy, and training and communication.

Change management consultants draw on various aspects of their psychological training in order to leverage processes of measurement, empowerment, and integration. Involving other people in a change effort is critical, as it helps foster ownership of the change effort among all employees, not just top management. Often, the difference between success and failure in an organizational restructuring may be largely attributed to how many people are integrally involved in its planning and implementation. One of the best ways to give people a sense of ownership is to involve them directly at each stage of the change process. Psychological measurement (including interviews, focus groups, and employee and customer surveys) can therefore be utilized effectively as a change tool, helping the consultant to identify areas of resistance, communicate current priorities, and monitor changes longitudinally.

Data collection and analysis skills provide a number of additional benefits throughout the change process. Quantitative data and/or qualitative open-ended questions and interview content help provide evidence that change is needed to employees who are "on the fence." In addition, results of data collection can help to clarify the purpose and direction of the change effort, by forcing people to consider its specific impact on their work in unambiguous terms. In addition, measurement is a form of communication—it informs people what the organization values and considers most important. Tracking the effectiveness of a restructuring effort communicates to employees that it is important, provides a way to judge how well it is being implemented, and may suggest needed modifications in its design. In turn, this information can be used to identify areas of training and education in order to foster effective leadership prior to, during, and after a merger or consolidation.

Human Factors Psychologist

Human Factors Psychology, or Engineering Psychology as it was once called, is the study of the ways in which employees interact with technological systems. Technology is increasingly a widely prevalent, taken-for-

granted characteristic of today's organizations, and employees interact with a wide variety of technological systems, ranging from computer systems, simulations, and complex transportation systems, to hand tools, assembly lines, and systems that monitor nuclear power plants. Human factors psychology applies basic research to both address and prevent existing technological problems, in order to design technological systems that are effective, comfortable, safe, and minimize human error. Through an understanding of the cognitive, social, and physical capabilities and limitations of employees, and by directly applying this knowledge in the design process, psychologists can develop systems that are specifically tailored to employee and organizational characteristics.

Human factors psychology draws on the basic principles of ergonomics, an area of study that focuses on how to design equipment for the workplace that maximizes productivity through minimizing operator discomfort, fatigue, and stress. Through the combination of ergonomic principles and a systems perspective, human factors psychologists work to develop effective interfaces between employees and technology. In order to design the most efficient and productive system possible, psychologists must have a detailed understanding of where the technology will be used, how it will be used, and what other systems it will influence and be influenced by. Therefore, professionals in human factors draw on a broad range of psychological principles, including perceptual processes, cognitive functioning, socioemotional well-being, as well as the physical actions involved in dealing with equipment across varying contexts. Technological implementation often has unanticipated and unintended consequences, which can be minimized with a thorough understanding of employees' needs and the organizational context and systems that surround the technology and its use.

Human factors psychologists often spend a great deal of time learning to understand which groups are most likely to use a product, and what characteristics of the group might influence the way the product is used. For example, products used in stressful contexts such as hospital emergency rooms may be more prone to user error, so a product may need to be modified or designed with additional safeguards in order to take user variations into account. In addition, human factors psychologists may conduct detailed analyses of a complicated task, breaking a longer process into smaller pieces in order to understand how characteristics of each stage of the task might influence product design.

After a product makes it through the preliminary design stage, human factors psychologists often spend time in applied settings to observe employees using the technology and interview them about their experiences. Through watching employees from different user profiles interact with the technology in real-world settings, the psychologist can begin to systematically track potential problems with the design both within and across differ-

ent organizational contexts. Potential ergonomic difficulties, ease of use, confusion concerning certain aspects of the product or how it fits into a larger task, and sources of resistance can all be identified and explored. Using focus group techniques, human factors psychologists may also bring a group of employees together who interact around the technology, in order to identify coordination issues, common usage problems, and sources of confusion or communication problems concerning how the new technology was designed. This data collection may lead to modifications in the technology to bring actual usage patterns into alignment with the product's design.

CONCLUSION

Work and careers will continue to be among the most consuming and rewarding dimensions of our lives in the 21st century. Applications of positive psychological science now offer great promise for enhancing quality of work life and organizational effectiveness across a wide range of diverse work and organizational settings. Career opportunities as change agents promoting human welfare are plentiful and rapidly expanding. They are also among the most intellectually challenging, personally rewarding, and financially lucrative careers now available to applied psychologists. It is our hope that this chapter has opened up new vistas for you, and possibly inspired you to consider seeking a career niche that allows you to contribute to efforts to promote optimal human functioning and organizational effectiveness in the evolving workplaces of tomorrow.

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