

## Industrial-Organizational Psychology<sup>12</sup>

Work occupies a central part of people's lives around the world. For example, full-time workers in the U.S. work an average of 8.5 hours/day, spending more time working than performing any other life activity except for sleep (Bureau of Labor Statistics, 2016). Work experiences exert a heavy effect on people's life satisfaction (Erdogan, Bauer, Truxillo, & Mansfield, 2012), and career goals are a central concern of many young adults (e.g., Rogers, Creed, & Glendon, 2008). Indeed, most readers of this chapter are likely in college as a step toward achieving a hoped-for career!

However, the world of work is changing in many ways that present new questions and challenges for workers. For example, advances in technology, including automation, are disrupting major industries and changing or eliminating many jobs (Susskind & Susskind, 2016). Employers are increasingly experimenting with alternative work arrangements, like contract workers in "gig" jobs (e.g., driving for Uber or Lyft), rather than offering full-time work with job security and stable benefits (Friedman, 2014). Despite progress, women, racial and ethnic minorities, religious minorities, LGBTQ+ individuals, and people with disabilities still struggle to be accepted and successful in many workplaces (Myors et al., 2008). And, around the world, hundreds of thousands of migrant workers continue to search for decent work opportunities that can fulfill their basic needs (Moyce & Schenker, 2018).

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Against this backdrop, industrial-organizational (I-O) psychology has an important role to play in improving organizations and promoting the well-being of workers. This chapter first presents a brief overview of I-O and what work in this field entails, and then reviews a series of major areas of research and practice within each half of the field.

## Overview

I-O psychology is the scientific study of working and the application of psychological principles to workplace issues facing individuals, teams, and organizations. I-O psychologists apply the scientific method to investigate issues of critical relevance to individuals, businesses, and society (SIOP website). As a consequence, I-O psychologists are trained as *scientist-practitioners* with the ability to both conduct rigorous research and engage in the practical application of scientific knowledge alongside businesspeople.

There are roughly 500 graduate programs in the U.S. that grant master's and doctoral degrees in I-O psychology. Unlike many areas of psychology that require a doctoral degree practice, a terminal master's degree is sufficient to pursue many excellent work opportunities in I-O psychology (Michalski, 2017). Moreover, the Department of Labor projects increased demand for I-O psychology into the mid-2020s. Much more information about graduate training and work opportunities is available on the Society for Industrial and Organizational Psychology (SIOP) website; SIOP is the primary professional body for the field.

Figure 1. *SIOP, Division 14 of the American Psychological Association, has over 9,000 members as of January 2018.*



**SOCIETY for INDUSTRIAL and  
ORGANIZATIONAL PSYCHOLOGY**

SCIENCE FOR A SMARTER WORKPLACE

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I-O psychologists are employed in a variety of different jobs. Many I-O psychologists are consultants. Many of these consultants are external, meaning that they are hired by different companies to assist with specific aspects of the business. One company might hire I-O consultants to help them develop a new way to hire cashiers, while another company hires the consultants to design a training program for factory workers. Other I-O consultants may work internally for a large company, where they help their organization with a variety of issues related to human resources and analysis of workplace data. The government also employs I-O psychologists, where they may develop tests and assessments, or provide guidance on how best to structure and organize a department. Finally, many I-O psychologists teach at colleges and universities, where they conduct research on I-O topics and help train students to become I-O psychologists themselves. Unlike psychologists with other specialties such as clinical psychology, I-O psychologists do not tend to hold a license to practice psychology, do not generally work with disordered populations, do not dispense medication, and do not provide therapy or counseling. Rather, I-O psychologists conduct research about work and apply research findings to the design of organizational, group, and individual activities at work.

### **Industrial Psychology**

As the name “industrial-organizational” suggests, I-O psychology has often been viewed as a field with two distinct, though related, components. The industrial half of I-O Psychology,

which is sometimes referred to as *personnel psychology*, focuses on the analysis of jobs; recruitment, selection, and training of employees; and evaluation of performance in the workplace. Industrial psychology is a close partner of human resource (HR) management in organizations, with industrial psychologists supplying the technical and legal expertise to create and evaluate the personnel systems that HR managers use on a daily basis. To this end, the major areas of research and practice that fall within industrial psychology include job analysis, recruitment and selection, performance appraisal, and training.

### **Job Analysis**

Before we can hire people, before we can assess their performance, before we can decide on their salaries, before we can train them - before we can do virtually anything to affect a job, we must first understand what a job consists of. What tasks does it include? What skills does the job require? Where does the job fit within the organization? Job analysis helps I-O psychologists answer these questions (Sanchez & Levine, 2012). Because of its importance for making further decisions about jobs, many I-O psychologists begin their consulting work with a job analysis.

Generally speaking, a job analysis can fall into one of two categories: *work-oriented* or *worker-oriented* (Brannick, Levine, Morgeson, & Brannick, 2007). Work-oriented job analysis focuses on the job itself, and involves developing a list of tasks that the job involves. For example, a retail store sales clerk might assist customers in finding merchandise, answer customer questions, use a cash register to take money and make change, bag the merchandise, and thank the customer, among other responsibilities. If we put this all together, it produces a *job description* that we can later use to identify training needs and the valuable behaviors that we should reward.

On the other hand, worker-oriented job analysis focuses on identifying the qualities needed by an employee to successfully perform the job in question. Traditionally, I-O psychologists have tried to identify several key characteristics of employees, including their knowledge (things they know), their skills (such as skill at persuading others), and their abilities (more stable traits they possess, like mathematical ability), often referred to as the “KSAs” required to perform the job. Returning to the example of our retail sales clerk, we might find that they need to be friendly, detail-oriented, reliable, and have the ability to learn about the merchandise the store has in stock. This information is crucial to developing a selection system that identifies job applicants with the right qualifications to be successful.

The process of completing a work- or worker-oriented job analysis procedure is actually quite similar. In each case, I-O consultants typically interview current employees and supervisors, or ask them to complete surveys, to gather information about the job. The consultants then use this information to write the task or KSA statements that describe the job.

### **Recruitment, Selection, & Placement**

Once I-O psychologists understand what a job entails, and the requirements that are necessary to do the job, they can use this information to assist an organization in a wide variety of ways. Generally, this information will be used to aid the hiring process in an organization—quality job analysis information can help with this process in a variety of ways.

The hiring process actually begins with recruitment—before people can be hired into an organization, they must first apply for an open position. Recruitment refers to the process of attracting people to submit applications for open positions within an organization. Today, recruitment often takes advantage of technology, such as Facebook, LinkedIn, Twitter, and internet job boards like Indeed.com and Monster.com. In their attempts to recruit people to apply

for a job opening, organizations will typically describe the requirements of the position, including educational requirements, and the main tasks and responsibilities associated with the position. Organizations may also attempt to describe aspects of the culture of the organization, such as the feel of the work environment, or the values or mission of the company. An organization that describes itself as “fast-paced” or “competitive” is likely to attract rather different applicants than an organization that advertises “teamwork” and “cooperation.”

Once an organization has recruited an applicant pool, the organization must decide how to assess the applicants, and the formal hiring process begins. The process used to evaluate job candidates and decide which ones to hire is typically referred to as *personnel selection*. Personnel selection is one of the oldest topics in I-O psychology, dating back to the very roots of the field at the start of the 20<sup>th</sup> century (Farr & Tippins, 2010; Ployhart, Schmitt, & Tippins, 2017). Selection usually involves administering a series of instruments, such as tests or interviews, to job applicants; the instruments are often scored and combined with other information, such as letters of recommendation, to help employers select the best applicant(s). The selection instruments an organization uses are commonly referred to as *predictors*, and helping organizations develop effective predictors are one of the most common roles that I-O consultants engage in. Common predictors that I-O psychologists help develop include tests of various qualities (such as intelligence, personality and other traits), and interviews (Cascio & Aguinis, 2011). Determining the right combination of predictors to give applicants for a given job is a central topic for consultants that assist with personnel selection, and involves the consideration of many factors, including cost, time, legality, validity, reliability, practicality, and acceptance in the business world. Selection often occurs in multiple stages. During the initial stage, it is common for applicants to participate in some initial screening assessments to “weed

out” unqualified applicants. Following this, subsequent stages in the selection process attempt to select the optimal candidate from the qualified applicants that remain after screening.

What predictors do the best job of helping organizations choose qualified applicants? One of the most consistent findings in I-O psychology, based on decades of research, is that general mental ability, or intelligence, is the single most effective predictor of job performance in nearly all jobs, and especially complex jobs (Schmidt & Hunter, 2004). One of the reasons this is the case is that general mental ability helps predict a person’s ability to learn new information and skills, a critical component of success in virtually any job.

Beyond general mental ability tests, many other predictors have been found to be effective for predicting employee success as well. Personality tests, such as those measuring the Big 5 traits, have also been found to successfully predict which applicants will make effective employees. In particular, the Big 5 trait conscientiousness has been found to predict performance in a wide variety of jobs. This is not surprising, given that people high in this trait are typically hard-working, reliable, and organized, all traits that should lead to success in most jobs (Barrick, Mount, & Judge, 2001). Additional predictors, such as simulations and work samples, can be used to successfully assess a person’s ability to handle actual job-related tasks in realistic settings (Scott & Reynolds, 2010).

What about interviews? Interviews have long been used by organizations to help make hiring decisions, and they remain one of the most commonly-used predictors in organizations today (Posthuma, Morgeson, & Campion, 2002). Interviews can be written to evaluate a variety of applicant characteristics and qualifications (Landy & Conte, 2010). Research on the effectiveness of interviews is mixed. Most interviews used in organizations tend to be fairly flexible conversations, where the interviewer is free to ask an applicant a wide variety of

different questions. Each applicant may be asked different questions, and the questions may not be directly related to the job the applicant is applying for. These interviews are typically known as unstructured interviews, and, despite their prevalence, they are not very effective predictors for evaluating applicants. One reason for this is that the information gained from one applicant's interview might be quite different from the information gained from another applicant's interview, thus making it difficult to compare "apples to apples."

Fortunately, interviews can be improved by making the interview process more structured. Strategies for structuring an interview include deciding on a consistent list of questions that will be asked of all applicants, ensuring that the questions are related to the content of the job, and using a scoring system to evaluate applicants' responses. Structured interviews that have these features are much more effective at predicting which applicants will be successful in a given job (Huffcutt, Conway, Roth, & Stone, 2001). I-O consultants often help organizations to design and implement structured interviews to improve the organization's selection process. Unfortunately, many organizations continue to rely on traditional unstructured interviews, which are much more prone to errors and subjective evaluations of job applicants. This divide between the predictors that I-O psychologists know are effective, and the predictors that many organizations utilize, remains an important concern for many I-O psychologists today.

### **Evaluating and Managing Worker Performance**

Once employees are hired and placed into their roles in an organization, it is typically necessary to assess their performance to see how well they are performing in their new role. Evaluating how well employees perform their jobs, and documenting this performance, is important for a variety of reasons. Certainly, performance information is often used to make decisions about whether and when to promote, train, re-assign, or terminate employees; it can



also be used for decisions about compensation, bonuses, and other rewards. If an employee's performance is lacking, the gap between how he or she is performing, compared to the ideal, might be addressed by training (or re-training) the needed knowledge, skills, or abilities.

Performance appraisal can also be used to give employees feedback, and help employees learn about their strengths and weaknesses--thus, another goal of performance appraisal is general employee development.

Performance appraisals are often conducted on a recurring schedule—once or twice a year is common. The review itself is typically structured around the employee's primary tasks and responsibilities, such that the supervisor provides a summary of the employee and their performance. The appraisal will often involve making ratings on numeric scales corresponding with specific aspects of performance, as well as comments and/or illustrative *critical incidents* to communicate to the employee how well they are performing on each aspect of the job. Critical incidents are specific behaviors the employee has engaged in—they are used to illustrate good or bad performance and often supplement numeric performance ratings. Feedback and critical incidents from other coworkers may be gathered by the supervisor with the goal of basing the performance appraisal on complete information.

One variant of performance appraisal that has become popular in recent years is 360-degree appraisal, which seeks to gather feedback from multiple sources that the person being evaluated interacts with, such as subordinates, peers, supervisors, clients/customers, and others. Self-appraisal, provided by the employee him- or herself, may also be included. The goal of this process is to provide employees with a more well-rounded sense of how they're performing.

Numeric performance ratings are a common part of a performance appraisal. For example, an employee may be rated on dependability on a scale of one to five, with anchors ranging from unacceptable (1), to average (3), to superior (5). Employees are often rated in the context of how other members of their team or work group are performing. Other rating approaches involve making direct comparisons between employees within a unit, such as ranking all employees, or comparing them two at a time and deciding which of the two is the superior performer. When using any numeric rating method, organizations need to be aware of the biases that raters may unknowingly exhibit. One risk is that all raters will not use a rating scale the same way—for instance, some might provide more generous, or harsher, ratings regardless of how the employee is performing. Such errors can lead to biases in the appraisal process, and impact the fairness of a performance appraisal system; fortunately, rater training can help avoid some of these issues.

What kinds of employee performance are typically assessed in organizations? In many cases, the answer to this question is determined by the type of organization the employee works in—effective performance for an employee who makes electric motors in a factory is likely to be very different from an employee who creates apps for your phone. For legal reasons, it is important for an organization to avoid assessing people based on irrelevant characteristics, such as their age, gender, or race. Here again, I-O consultants often help organizations design performance appraisal systems that focus on core aspects of job performance, and avoid evaluating irrelevant characteristics. For many jobs, the main focus of performance appraisal is on *task performance*—that is, how effectively an employee performs the key requirements of their job. However, many organizations are also concerned with additional behaviors that employees may engage in outside of their job responsibilities. These “extra” behaviors can be

positive or negative in nature. Positive behaviors are typically referred to as *organizational citizenship behaviors*, or OCBs, and may include actions such as bringing donuts or bagels to an early morning meeting, staying late to assist a coworker with a project, or speaking positively about the organization to outsiders. Negative behaviors, often called *counterproductive work behaviors*, or CWBs, range from fairly minor actions, such as being rude to a coworker from time to time, to more serious, criminal activities such as theft, sabotage, or arson. As you would expect, employees who enjoy their work are more likely to engage in OCBs, while dissatisfied employees are likely to engage in CWBs. Thus, if organizations want to promote OCBs, and prevent CWBs, it is important for them to consider their employees' thoughts and feelings about their workplace.

## **Training & Development**

Over time, it often becomes necessary for employees to learn new knowledge or skills, to enhance their job performance and keep pace with changes in their occupation. I-O psychology intersects with cognitive psychology and learning theories in the domain of training and development, which focuses on increasing employees' knowledge, skills, and abilities. Like many other organizational processes, training is, in part, based on job/task/work analysis to determine the elements of a job that a person requires training to do. The training process often begins with a training needs analysis, which is an analysis of the organization, tasks, and person that results in objectives for training (Arthur, Bennett, Edens, & Bell, 2003). Principles of learning and cognition serve as the basis for designing training and development interventions. Basic principles about memory, perception, judgment, and learning include cognitive biases, primacy and recency, interferences, decision-making, and developments. These are relevant to

determining how best to convey information about how and when to engage in various work behaviors, and how to assess how well training has accomplished its goals.

What topics do organizations commonly use training for? Some training is motivated by legal considerations, such as diversity and sexual harassment training. With diversity training, employees are typically educated on the benefits of diversity, and provided with suggestions for acting with sensitivity in a diverse workplace. Sexual harassment and discrimination, which are typically prohibited both by law and organizational policies, can also be addressed via training. Employees may be educated on key terms and ideas related to harassment, practice identifying situations in which harassment may occur, and discuss appropriate courses of action for reporting and preventing harassment.

Other types of training are prompted when employers require employees to possess a particular area of knowledge, skill, or ability to meet organizational needs. If an organization wants to avoid training, they may look to hire employees that already have those KSAs that they desire (a selection approach). Alternatively, they may use help current employees develop those KSAs (a training approach). The decision between these approaches is driven by several considerations, including cost, timing, other available resources, and staffing goals. For example, for employers do not wish to increase the size of their workforce, training may be a more attractive option. In addition, the expected *trainability* of a knowledge, skill, or ability and skill level of current personnel might be taken into account. Consider the likelihood of successfully teaching someone a specific skill, such as typing, using a cash register, or engaging in successful customer service interactions, compared to the more difficult challenge of improving a person's mathematical abilities or extraversion.

In organizations today, training can occur in a wide variety of formats. Training often occurs with a face-to-face instructor, but many organizations today are relying on remote or distance training, mediated by communication technology, and self-paced training. In addition, employers are generally motivated to understand whether their resources devoted to training are achieving key training objectives. Consequently, many employee trainings are followed, either immediately or after a delay, with some form of evaluation. Some evaluations focus on how much of the training content was understood and retained by the trainee, while others focus on how well that information *transfers* to on-the-job behaviors, how well the trainee feels about the training process, and what the outcomes for the organization are (Kirkpatrick, 1959). For the individual, training can be considered in terms of impact on career development and advancement in the organization.

### **Organizational Psychology**

The organizational half of I-O Psychology is broadly concerned with the social and psychological context of the workplace. Organizational psychology focuses on many different levels of workplace phenomena, including micro, within-person experiences, like attitudes and emotions; meso, small group dynamics like teamwork and interpersonal discrimination; and macro, organization-wide factors, such as leadership and organizational culture. Overall, organizational psychology helps us understand the experience and consequences of working life in modern organizations. Major areas of study within organizational psychology include employee attitudes, worker health and safety, motivation, and teamwork and leadership.

#### **Employee Attitudes**

I-O psychologists are often concerned with the attitudes employees hold about their work. Several attitudes have been the focus of extensive research over the past several decades,

and the importance of employee attitudes has been demonstrated by their ability to predict whether employees will exert less effort at work, engage in CWBs, or even leave the organization altogether.

Job satisfaction, which refers to an employee's overall evaluation of their job, is the most fundamental attitude studied in I-O psychology (Judge & Klinger, 2007). When a worker has positive feelings and thoughts about his or her job, positive outcomes are likely. These outcomes include performing their job at a high level, feeling motivated, and being inclined to do *extrarole* behaviors that are helpful but aren't explicitly required as part of the job. Job satisfaction is often measured using scales, which include questions with a range of numeric response options with either images or phrases as anchors (e.g., 1 = very dissatisfied to 5 = very satisfied). While job satisfaction can be measured using a single question, a more nuanced understanding of satisfaction can be achieved using multi-item scales that ask the respondent about various aspects of a job (e.g., pay, autonomy, coworkers). Measuring satisfaction in this way can help I-O consultants get a more detailed understanding of which aspects of their jobs employees like and dislike the most.

Another attitude important for understanding work behavior is organizational commitment, or an individual's psychological attachment to an organization (Meyer & Allen, 1991). Researchers studying the nature of organizational commitment have identified three types of commitment. Affective commitment reflects an emotional connection an employee may feel with their organization. Employees with high affective commitment may feel as though they are a "part of a family" with their organization. Continuance commitment reflects commitment that is based on a lack of available alternative employment options. Employees with high continuance commitment may stay at their current job because of poor job prospects in their

area, or because they lack necessary education or training to make themselves competitive for other job opportunities. Finally, normative commitment is driven by employees' sense of obligation to their organization. For instance, if a company gives an employee their first job after graduating from college, or has invested resources in an employee in the form of training or development, the employee may feel obligated to stay with the organization to "pay back" these investments. Overall, strong ties have been found between organizational commitment and turnover, or leaving one's organization.

Employees' attitudes about an organization may also be based on how fairly they feel they are treated. Organizational justice theory suggests that employees pay attention to the fairness of how they're treated in several ways. The various types and subtypes of justice focus on how outcomes or results are distributed across employees, the fairness of organizational procedures or decision rules, and the nature of interactions among organizational members. For example, an employee may feel that the process of performance appraisal is fair (procedural justice), but that it did not result in a sufficient pay raise (distributive justice).

What can an organization do to improve their employees' attitudes? Unfortunately, psychological research on attitudes in general suggests that attitude change is often quite difficult. A basic principle of attitudes is that once an attitude or belief is held, it serves as an anchor around which new information is judged. Thus, once an employee begins to evaluate their workplace negatively, they may seek out and focus on additional information that supports this attitude.

## **Worker Health & Safety**

Occupational health is a multidisciplinary field concerned with the health and safety of people at work, and has become the subject of much research in I-O psychology. Jobs place a

variety of demands on workers, and these demands can lead to the experience of stress, which may be followed by various negative outcomes such as effects on the physical and mental health of employees (Beehr, 1995; Jex, 1998; Tetrick & Quick, 2011). Occupational health research examines internal and external sources of occupational stress, as well as ways to decrease worker stress and methods for preventing stress. Evidence suggests that organizations should be concerned with occupational health, as consistent exposure to stressful working conditions can impact not only employees, but also organizational effectiveness: studies have estimated that billions of dollars are lost from the U.S. economy due to occupational stress, based on the assumption that stress plays a role in negative outcomes such as increased medical, legal, and insurance costs, higher rates of absenteeism and turnover, diminished productivity, and increased occupational accidents (e.g., Goldin, 2004).

While I-O psychologists have contributed to the study of occupational stress, the occupational stress literature consists of important contributions from multiple perspectives, including *medical* (focusing on the contribution of stress in the workplace to employee health and illness), *clinical/counseling* (which focuses on the impact of stressful working conditions on mental health outcomes such as anxiety and depression), *engineering psychology* (which focuses on stressors originating from the physical work environment), and *organizational psychology*. Organizational psychology focuses heavily on *cognitive appraisal* (the process by which employees perceive the work environment and decide whether it is stressful), as well on sources of stress that are social in nature (e.g., are sourced from interactions with others). Recently, these four approaches have joined into one field known as *occupational health psychology* (OHP; Barling & Griffiths, 2011). OHP is an interdisciplinary field that focuses on using psychological



theories and methodology to enhance health, safety, and well-being for individuals and organizations.

Another focus within the field of OHP is employee safety, usually with regard to preventing accidents and injuries in the workplace. Research has examined workplace safety outcomes in relation with both situational factors in the work environment (e.g., physical hazards such as heat and noise; Jex, Swanson, & Grubb, 2013) and personal factors in the employee (e.g., personality traits; Clarke & Robertson, 2008). Most models of employee safety posit that certain factors influence the experience of accidents and injuries through an effect on the *safety performance* of the employee (i.e., employees being compliant with safety procedures and notifying others in the organization about safety concerns; Griffin & Neal, 2000). Most studies have found moderate to strong relationships between different types of safety performance and the experience of workplace accidents (Jiang, Yu, Li, & Li, 2010). Moreover, the *safety climate* of a work unit and/or organization is predictive of safety performance, which has been linked to workplace accidents (Zohar, 2011). Safety climate refers to whether the employees in a company share similar perceptions of policies and procedures regarding workplace safety, such as rules regarding the use of safety equipment. A recent review of the injury and accident prevalence literature suggested that thousands of American workers die each year from injuries sustained in the workplace; however, prevalence rates are far worse in countries that do not have government oversight of labor practices: over two million individuals worldwide die each year as a result of injuries suffered in the work environment (Kaplan & Tetrick, 2011). In the United States, the Occupational Safety and Health Administration (OSHA) is the government agency established to assure safe and healthful working conditions by setting and enforcing standards and providing training, outreach, education, and assistance to US organizations. Most private employers are

responsible for ensuring that OSHA standards are met, and employers concerned with worker health and well-being seek to maintain safe working conditions and offer channels for addressing issues as they arise.

## **Motivation**

Understanding employee motivation--the forces that direct employees' behaviors at work--has a long history in I-O psychology. The study of motivation in I-O psychology can be traced back to studies by Hugo Munsterberg, who studied motivation issues for employees working at knitting mills (Landy & Conte, 2004). He saw that employees were working 12-hour days, and working 6 days a week. With some modifications (i.e., having kittens play with balls of yarn on the factory floor), Munsterberg was able to influence the satisfaction and alertness of the employees.

Some of the basic motivational questions that I-O psychologists study include what needs elicit action for individuals, what traits impact the engagement of behaviors, and how the environment (space and individuals) influences the motivation and behaviors of people. While the study of work motivation is continually evolving, there are several seminal theories that have informed our understanding of motivation.

One of the most well-supported theories of motivation in I-O psychology is goal-setting theory (Locke & Latham, 1990). This theory emphasizes that goals can influence employees in a variety of ways. For instance, goals can influence the direction of actions; Goals can also affect the effort that employees put forth to those actions; In addition to these benefits, goals can increase employee persistence, and motivate them to choose more effective strategies for attaining those goals. Goals that tend to provide the benefits just described tend to share some key characteristics. Specifically, goals that are *specific, measurable, actionable, realistic*, and

*time-bound* (SMART) are typically more effective than goals that lack these qualities (Locke & Latham, 2002).

Despite the popularity of goal-setting theory, several other motivation theories have received attention, and research support, from I-O psychologists. Expectancy theory (Vroom, 1964) suggests that employees are unlikely to be motivated unless they can provide affirmative answers to three questions. The first question involves asking whether employee effort will lead to performance (instrumentality). If an employee feels that working hard will not result in success on the job, they are likely to have low motivation. If an employee decides that their effort will actually result in a sufficient level of performance, they must then evaluate whether their performance is likely to be rewarded or recognized in satisfactory ways (expectancy). In some workplaces, employees may feel that their strong performance goes unrecognized--if this pattern persists over time, they are likely to lose motivation. Finally, the third questions associated with expectancy theory concerns whether an employee values the rewards they are able to receive (valence). If an organization rewards its employees with public "employee of the month" ceremonies, but an employee would prefer a cash reward rather than public recognition, they may find their motivation limited.

The job characteristics theory (Hackman & Oldham, 1976) takes a rather different approach to motivation. This theory suggests that several key features of job themselves can also influence the motivation level of employees. For example, autonomy, or the freedom that employees have to choose how their work is done (or at least certain elements of it) typically has a positive effect on motivation. Doing work that allows employees to use a variety of different skills and abilities (task variety), and performing work that feels important to other peoples' lives

(task significance) can also generate higher levels of motivation. Finally, receiving feedback, such as from supervisors and peers, can improve motivation for many employees.

### **Teamwork & Leadership**

In many organizations today, work is often conducted in the context of a group or team. Teams are defined as two or more individuals who share one or more common goals, and interact to perform activities that are relevant to the organization. Teams are influenced by a wide variety of social dynamics. As an example, consider Susie who just graduated medical school and has started her intern year in a department that emphasizes teamwork. Her role in the interdisciplinary team is that of the physician, which she feels comfortable doing as she graduated with honors from her university. What she is concerned about is how to function effectively in the team. She personally likes to do things on her own, so she is uncertain how this part of her job will actually go, especially since she knows the intern year is a very stressful one and she knows that two of the other team members have reputations of being really difficult to work with.

Some of the concerns that Susie has are ones that I-O psychologists try to grapple with as consultants and researchers. Many topics that originated in social psychology are relevant to the study of teams. For instance, many people have a tendency to work with less intensity when they are in a group, compared to when they are by themselves, which social psychologists refer to as social loafing (see Latané, Williams, & Harkins, 1979). Managers can help avoid social loafing in their work groups by making sure that each employee knows what they are responsible for.

A natural sister topic of teams concerns the individuals tasked with facilitating teams—leaders. While there are many definitions of leadership, the common elements of the definitions are influence and guidance of others towards a goal. Over time, I-O psychologists have studied

leadership from several different perspectives. In the 1920s and 1930s, early leadership research focused on the trait approach, which centers on the idea that leaders possess certain traits (e.g., ambition, dominance, extroversion, height) that non-leaders do not possess. However, this approach did not prove to be productive, as research did not show consistent relationships among the traits. Undeterred, I-O psychologists re-focused their attempts to understand leadership by looking for specific behaviors that successful leaders might engage in. Fleishman and Harris (1962) defined leadership using two dimensions, consideration (concern for the individual's needs) and initiating structure (organizes and defines activities). This approach proved to be more successful, and the legacy of this work can be seen in more modern research on transactional and transformational leadership (Bass, 1985).

I-O psychologists have a unique place as researchers and consultants when informing the greater population as to the practice of leadership. With changing workforce practices, such as the utilization of temporary workers, teleworking, virtual teams, increasing diversity in the workforce and other existing ambiguous boundaries that modern jobs hold, I-O psychologists are prepared to contribute to our understanding of leadership and how we best develop and coach the leaders of today and tomorrow.

### **Conclusion**

As you can see, I-O psychologists are concerned with a wide variety of topics related to the performance and well-being of both employees and their organizations. Some topics, such as recruitment, selection, and performance appraisal, have been important from the start, while others, such as worker attitudes, stress, and motivation, have increased in importance in recent years. Today, while it is still possible to make a distinction between “I” and “O” topics within this field, there is greater recognition that these areas represent two sides of the same coin, and

that both sides can have a substantial influence on one another. As work continues to become more complex and subject to global and technological pressures, I-O psychologists will become increasingly important for helping both workers and organizations weather these changes.

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