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Conducting Case Studies

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As described in the preceding chapters, there are many benefits to conducting research using national datasets, administrative data, and data from employer surveys. The primary advantage of these approaches is that they allow researchers to identify patterns of findings that are generalizable across organizational contexts—for example, research about the prevalence of disability practices, or about the relationship between the adoption of certain practices and objective firm-level outcomes such as hiring or turnover rates for individuals with disabilities.[1]

Case Study Research as a Complement to Other Approaches

The purpose of case study research is to complement these cross-organization studies with in-depth data collected from employees *within* organizations (in the case of our own work, two organizations—one each from the federal and private sectors). The two primary advantages of within-organization

research are that it allows for an examination of (a) the intrapsychic perceptions, attributions, and attitudes of employees with disabilities that are not (usually) captured in administrative, national, or cross-organization datasets; and (b) the interplay between these individual-level experiences and the particular organizational context within which employees are working. There have been a number of cross-organization surveys conducted to examine the attitudes and experiences of people with disabilities (for example, Schur et al. 2014; von Schrader, Malzer, and Bruyère 2013). Within-organization case studies offer the unique opportunity to examine how the experiences of individuals with disabilities are influenced by surrounding leadership, informational, task, and social attributes (Johns 2001). In this chapter, we will discuss the opportunities afforded by case study research in general and will also describe some of the specific approaches that we adopted in our own case studies, as well as associated research findings.

The Focus of the Other Approaches

In chapter 5 we described research that was based on data collected from human resource representatives about the disability practices and policies that have been adopted by their organizations. While these data have allowed us to understand organizational-level trends and relationships, organizational-level studies implicitly assume that the disability policies and practices that are reported by organizational representatives as being in place within their organizations are actually implemented as intended (Nishii, Lepak, and Schneider 2008). Yet prior research has revealed that over two-thirds of all managers are unaware of their organization's disability practices (Nishii and Bruyère 2009). This suggests that espoused practices as reported by HR managers may not align with those actually implemented by line managers.

Indeed, we know from HR research that an organization's intended practices are filtered through the line managers who serve as implementers of those practices (Bowen and Ostroff 2004; Wright and Nishii 2013). Depending on the consistency with which managers implement disability practices (both across managers and across time), employees are likely to develop different perceptions of, and reactions to, these practices.

Employees' experiences with these practices shape their perceptions of the organization's disability climate, perceptions that in turn influence the everyday work experiences of individuals with disabilities. By complementing cross-organization research with within-organization research focused on the managerial differences that might explain some of the variation in the way in which practices are executed (e.g., Bowen and Ostroff 2004; Nishii and Wright 2008; Pfeffer 1981), we are able to develop a richer understanding of how specific disability initiatives relate to the employment outcomes and experiences of individuals with disabilities.

Similarly, while administrative datasets such as the Equal Employment Opportunity Commission data described in chapter 4 contribute to an understanding of where claimants are perceiving that disability discrimination is occurring in the employment process, and which types of disabilities these individuals have, these data do not tell us about the workplace factors that might make it more or less likely for individuals with disabilities to experience disability-related discrimination or harassment. By drawing on what is known from diversity research about the within-organization factors associated with reports of discrimination and assessing them in case-study research designs, we are able to understand the organizational climate and managerial and coworker factors that influence the likelihood that individuals with disabilities will experience discrimination.

Value of Case Studies

In case study research, it is possible to broaden the focus to include an analysis of non-disability-specific workplace factors—factors that have been shown in the HR literature to enhance the advancement and retention of employees in general—as a means of developing a more nuanced and comprehensive understanding of the combination of practices and issues that are most influential for the employment outcomes of people with disabilities. In this research, we build upon prior work that has shown that unit managers exert substantial influence over the experiences of employees with disabilities (Disability Case Studies Research Consortium 2009; Nishii and Bruyère 2009). The quality of the relationships that managers develop with subordinates with disabilities has important implications for the access that those subordinates have to valuable job opportunities, resources for

performance success, career and psychological support, and their status relative to other subordinates (Gerstner and Day 1997). In addition, managers have a significant impact on the inclusiveness of work-group climates, the perceived meaningfulness of and fit with one's job, satisfaction with accommodation processes, experiences of disability-related harassment, and overall engagement (Nishii and Bruyère 2009). Therefore, in the case study approach described here, we focused on specifying the characteristics of managers that enhance outcomes for people with disabilities.

In what follows, we first describe the primary sources of data in case study research and review some of the important decisions one should consider related to research design, including issues about which researchers need to be cautious. Next, we discuss the main types of research questions that can be addressed using a case study approach, and include in this discussion some of the specific research questions we examined in the case studies that were part of this transdisciplinary research endeavor and share select findings. We end with a few ideas for future research using a case study approach.

Designing Case Study Research

Identifying an Appropriate Employer Case Study Partner

A number of factors should be considered when identifying an organizational partner for case study research. Considerations involved in successfully *recruiting* the organizational partner in collaborative research are discussed in chapter 2. Organizations vary in the extent to which they employ people with disabilities across not only work units but also job function and hierarchical levels. Organizations also vary in their progress in adopting "best practices" to enhance the hiring, engagement, and retention of individuals with disabilities. Although it may be easier to attain needed research sample sizes in organizations that have hired a disproportionately large number of employees with disabilities (Walgreen's distribution centers, for instance) compared with peer organizations, the inherent tradeoff is that findings derived from research with such organizations will be less generalizable to the broader labor market. Such organizations are likely to be characterized by better-tuned disability practices, managers and coworkers

who are more knowledgeable about disabilities and associated accommodations, less pronounced stigmas, and fewer barriers to success for employees with disabilities. Partnering with such progressive organizations may help to identify "best practices" that can serve as a source of learning for other, less advanced, organizations, but may be less useful for examining the psychological and practice-based barriers to employment and advancement that continue to exist in the vast majority of organizations.

Regardless of the goals of the research—and therefore the choice of research partners—a critical step in case study research is investing the time and effort required to develop a trust-based relationship with the potential organizational partner. More is written on this in chapter 2, but it is important to reemphasize this point here, as case study research requires a significant time commitment on the part of the organizational partner, and, more important, it requires the willingness to provide access to sensitive data. It is not uncommon for organizations to find it intimidating or intrusive for researchers to survey employees about their experiences and perceptions regarding inclusion, discrimination, and fairness related to a stigmatized identity such as disability. Although the process of nurturing a trusting relationship can take months or even years, it is imperative that the research partnership be viewed as mutually beneficial, because only then is it possible to collect candid employee perceptions and develop a more nuanced understanding of disability issues within organizations.

Multisource Case Study Data Collection

In case study research, data can be gathered from multiple sources, creating the opportunity for a richness in analysis not possible in many other research methods. Figure 6.1 presents a visual overview of these possibilities, incorporating both administrative and individual sources.

Organizational Metrics and Documentation

A useful place to begin is with gathering and assessing the organization's official statements of policies, practices and procedures, and existing metrics or measurements that management uses for its own assessments and accountability. What do the organization's documents describe about its
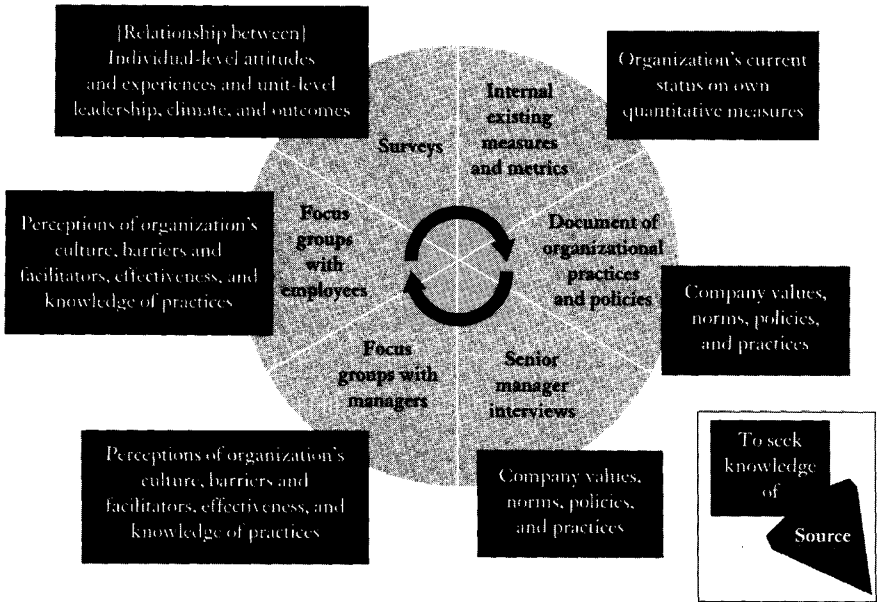
Figure 6.1 Contributions from multisource case study data collection

workplace practices and culture for employees with disabilities? How does the organization communicate this both internally and externally? What measures are collected, and what do these reveal?

A "wish list" of such data might include: the organization's value statements; EEO-1 reports; affirmative action plans; recruiting, accommodation, and representation statistics (ideally by level and business unit and/ or department); results of past employee surveys; employee handbook descriptions of disability and inclusion-related practices; documentation of recruiting, performance review, and promotion procedures; and descriptions of manager training programs on disabilities, accommodations, and inclusion. Related to disability training, it would be valuable to understand what is covered in training, who is required to take the training and how often, and whether there are follow-up activities to the training. Disability-focused training might include a regulatory compliance focus (for example, the requirements of the employment provisions of the Americans with Disabilities Act); information on the internal accommodation process and resources to determine an appropriate

accommodation; disability etiquette; or a more nuanced understanding of the micro-messages that convey bias and stereotypes regarding individuals with disabilities. The content of the training, who receives it, and the organizational messaging around the rationale for training all provide valuable information about the organization's approach to disability issues.

Finally, understanding which linkage and gap analyses are currently being performed by the organization is useful, since these analyses can help inform the design of subsequent surveys. Examples of useful analyses might be: How is the organization analyzing the links between employee data (for example, employment of individuals with disabilities, accommodation rates, or inclusion experiences) and not only internal metrics such as employee engagement data, but also organizational performance metrics such as financial performance, turnover, and customer satisfaction? Are pay or performance gap analyses (for underrepresented groups) regularly performed? While it is highly unlikely to get access to or be able to distill all the existing internal sources of data, each additional source adds to the potential robustness of the case study.

Interviews and Focus Groups

Interviews with senior managers (in the HR department in particular) can help to identify company values, norms, and practices. Complementary interviews with a sample of managers and supervisors can also be beneficial, as a means of exploring the barriers that they perceive for the successful implementation of disability practices.

Following these interviews, conducting focus groups involving employees with disabilities is a valuable next step. In such focus groups it is useful to inquire about perceptions of how receptive the organization's culture is to employees with disabilities; what types of barriers employees with disabilities face within the organization; and perceptions about how well the organization is doing in recruiting, developing, engaging, and retaining employees with disabilities. It is also helpful to inquire about whether the focus group participants have ever asked for an accommodation, and if so, if they experienced any issues during the process, and whether their coworkers were aware and supportive of their accommodation request. Employees without disabilities who have worked with a colleague with a known disability are also a good source of information. Asking similar

questions about the receptivity of the organization's culture, possible barriers facing employees with disabilities, the extent to which the organization does a good job of facilitating coworker receptivity to accommodations requests by employees with disabilities, and the effectiveness of the organization's disability practices in general provides a comparison of perspectives to inform case study findings. Our prior work (Disability Case Studies Research Consortium 2009), as well as the focus groups we conducted for these case studies, have taught us that coworker reactions to accommodation requests on the part of employees with disabilities have important ramifications for the work experiences of people with disabilities.

It is also beneficial to conduct separate focus groups with managers to ask them about how well they think the organization is doing in recruiting, developing, engaging, and retaining people with disabilities, and whether there are disability policies and practices that they think are not as effective as they could be or that make their role as managers difficult, and why. Doing so supplements the perspective supplied by employees and provides valuable input regarding the disability practices that should be the focus of survey questions.

Surveys

An important purpose of the previously described forms of information collection is to inform the design and content of a survey that will follow. Although researchers may embark on the research effort with specific hypotheses in mind, using information gathered from these interviews and focus groups prior to formulating a survey helps to (a) refine the specific set of disability practices and policies about which questions are included in the survey, (b) identify specific cultural issues or barriers that should be addressed, and (c) develop a clear understanding of how best to conceptualize work units and reporting relationships throughout the different parts of the organization.

This last point is critical for the design of surveys for multilevel research. Specifically, it is important to identify the work-unit level that is psychologically meaningful for employees. It is common practice in research conducted by organizational psychologists to think of meaningful

work units as the units within which employees interact and are interdependent in some way, and within which coworkers engage in collective sense-making processes. Often, the specification of organizational units is based on expedience and likely to reflect the formal units about which the organization is accustomed to producing reports. Organizational representatives may initially suggest that the appropriate unit level of analysis to consider is their divisions or departments (Kozlowski and Klein 2000). However, these are usually too large to be psychologically meaningful for respondents. If within an identified unit there are many employees with whom an employee is unlikely to interact, then it is inappropriate to assume that those employees experience and understand that organizational unit similarly. Instead, their experiences are likely to be shared with employees in their more proximal or local subunit. If this is the case, then those subunits should be the focus of analysis (Klein, Dansereau, and Hall 1994; Kozlowski and Klein 2000).

Imagine, for example, when survey respondents answer questions about the inclusiveness of the work unit: if, within the identified work-unit level, respondents report to different managers who hold different beliefs about diversity and inclusion and have different leadership styles, and respondents also interact with a different subset of employees, then constructs aggregated to that particular work-unit level of analysis will be less reliable estimates of unit-level phenomena (Kozlowski and Klein 2000). Similarly, if respondents have different managers in mind when they respond to questions about their manager's treatment of disability issues or leadership style, then it makes little sense to aggregate their responses to represent the group's perception of the manager. As a rule, researchers should think about the theoretical level of a construct, then align the measurement level of the construct to it by carefully identifying which employees can meaningfully respond about the aspect of the work environment that is of interest (for more details, see Kozlowski and Klein 2000).

Once the appropriate unit level is identified, survey respondents should be directed to identify which unit they belong to (ideally using predetermined drop-down lists from which they can choose rather than allowing open-ended responses) and to think about that specific level of analysis when responding to any survey questions that refer to their work unit. Doing so helps to eliminate unwanted "noise" in survey responses. Subsequently, when survey data are analyzed using multilevel models,

employees' responses can easily be aggregated using the unit identification variables included in the survey (Kozlowski and Klein 2000). For some types of jobs (assembly line or hospitality workers, for instance) it may be necessary also to include a survey question about respondents' work-shift membership so that the different shifts of employees doing the same work in the same department can be differentiated accurately within the data.

In cases when organizational administrative data and related metrics are available—for example, unit error, productivity, or sales data—and there is the possibility of linking it to survey data, another important consideration will be whether the unit level of analysis that has been identified as psychologically meaningful for employees aligns with the level at which the outcome data are reported. If there is a mismatch, then the researcher has to determine whether the smaller units identified in the survey (for example, customer-facing team and back-end employees of a restaurant or hotel) can be aggregated to match the larger units represented by the outcome data provided by the organization (for example, restaurant or hotel profits), and furthermore, whether there would then be a sufficient number of larger units in the data to provide the statistical power necessary to run desired analyses at the unit level of analysis. When using aggregated constructs in data analyses, the sample size is determined by the number of aggregated units rather than the number of individual responses that compose those aggregated constructs.

Balancing Employer Needs

As stated earlier in this chapter, it is imperative that the research partnership be viewed as mutually beneficial. When developing the survey instrument and other parts of the case study research, researchers should pay careful attention to balancing research interests with the needs of the employer. This is important for a number of reasons. First, when stakeholders from the partner organization are afforded a voice in shaping the research agenda, they are much more likely to help market the survey and other data collection activities internally as being important for the organization. This in turn helps to boost response rates on surveys and cooperation in focus groups, interviews, and collection of organizational documents and existing metrics. Second, they can help to identify any survey items or case study activities that may trigger resistance within their organization

(for example, from legal counsel) and disrupt the approval process. Third, it helps increase the chances that the results of the case study will be seen as relevant to addressing the organization's needs, thereby strengthening the possibility of having a significant impact on organizational behavior in the future and supporting the maintenance of a long-term research partnership with the organization (that is, for follow-up data collection efforts). Fourth, stakeholders can help ensure that the terms that are used in the research in general, and the survey in particular, are appropriate for their particular organizational context and are therefore more likely to be easily understood by respondents. Finally, even when the costs associated with the case study (for example, designing, programming, and administering the survey) are fully financed by the research team, the staff of the partner organization still needs to commit significant resources to make the partnership successful (for example, staff time, internal communication tools, internal social capital to garner and maintain support for the survey). The importance of these activities is nontrivial; successful and sustainable research partnerships rely on maintaining a healthy relationship between the employer and the research team.

Important Considerations in Designing Case Studies

For all the value and unique insights offered by case studies, there are research and methodological cautions that need to be carefully considered and addressed. In this chapter we will mention ones we consider of highest importance: disability definition, anonymity versus confidentiality, common method bias, and self-identification.

Definition of Disability   Perhaps more so than is the case with other dimensions of diversity such as gender and race or ethnicity, the measurement of disability in the workplace is associated with numerous methodological challenges (Livermore and She 2007). As described in chapter 1, the two major conceptualizations of disability that dominate the field in the United States both recognize that "disability" results from interactions between a person and the physical and social environment (Weathers 2009, 29). These interactions may result in limitations to that person's capacity to function at work, in society, or in daily life. This "functional limitations" model can be contrasted with the "medical model," used by many

government programs, which defines certain medical and health conditions as "disabilities." The existence of specified lists that define disability has contributed to the widespread use of the medical definition of disability in labor market research (Bernell 2003). It is also important to remember that most of the major definitions of disability ultimately rely on self-reporting by the person with a disability. Some people would not consider their condition to constitute an impairment and would thus not self-identify as a person with a disability (Colella and Bruyère 2011).

For public policy purposes, national surveys have often been used to assist in identifying the population with disabilities. Many disability researchers follow the lead of the U.S. Census Bureau's American Community Survey (ACS), which we discuss further later in this chapter (Livermore and She 2007). Using the same six ACS questions in survey research can allow for comparisons between the study population and national datasets (see chapter 3).

One of the issues inherent in deciding what type of disability definition or measure to use has to do with the level of specificity with which disability status is considered or respondents report about their disability. The advantage of including nuanced categories of disabilities is obviously that it provides the researcher with more information, and these categories can later be collapsed into larger groups of disabilities if necessary to create needed sample sizes for analyses; however, including nuanced categories increases respondent burden and perhaps also may raise greater concerns on the part of the respondent about privacy and identifiability. Because it is not uncommon for individuals to have multiple disabilities at the same time, terminology throughout the case study should allow for any number of disabilities as representing an employee's disability status.

Within the survey context, it is the case that when respondents disclose having multiple disabilities—especially disabilities that fall into different categories, such as physical and psychological disabilities—it is usually impossible to isolate the workplace outcomes associated with one of the disabilities independent of the effects of the other disabilities. For example, if such a respondent reports feeling mistreated by coworkers as a result of his or her disability status, there is no way to know whether coworkers are reacting to that individual's physical or psychological disability, or both.

Anonymity and Confidentiality   In addition to the disability-specific definitional issues of which researchers should be aware when conducting case studies, there are other issues germane to the research that are noteworthy. First is the issue of anonymity. In anonymous data collection, the participants' identities are not known to the researcher. In confidential data collection, identities of the participants may be known to the researcher, but individual responses (whether from surveys, interviews, or focus groups) are held confidential; that is, only aggregated results are shared with the organization that is being studied or with others (Ong and Weiss 2000). Given a choice, many organizations prefer to guarantee both confidentiality and anonymity to survey respondents, as these conditions tend to help respondents feel the most comfortable when providing answers to potentially sensitive questions, such as inquiries about their disability status or experiences with unfair treatment.

Every measure should be taken to guarantee the confidentiality of employees' interview, focus group, and survey responses. Examples include having online survey responses directed to a highly secure external server managed by the research team and not the organization, and reporting focus group results only in the aggregate. However, there are significant disadvantages associated with conducting anonymous research. Perhaps most important, when respondents remain anonymous and therefore cannot be identified in the data to be analyzed, it becomes impossible to link one data source to another. For example, responses cannot be linked to survey data collected at another point in time or to the partner organization's HR information systems that could be used in the analysis to include job type, function, demographics, tenure, absenteeism, individual performance ratings, pay, managerial level, history of job changes or promotions, and unit-level performance. In this situation, any and all information desired by the research team must be collected at one point in time using a single survey, thereby potentially increasing the length of the survey and associated respondent fatigue and limiting the richness and statistical robustness offered by multisource analysis. When this translates into the need to include a section asking respondents about their demographic and employment background, it can also increase respondent fears about being identified, despite assurances about the confidentiality of the data.

Common Method Bias   Another important consideration specific to the survey method of data collection in a case study is the reduction of "common method bias," which refers to when the correlations among measured variables are inflated as a function of a shared measurement method, as is the case in data from a single cross-sectional survey (Podsakoff, MacKenzie, Lee, and Podsakoff 2003). Common method bias is problematic to the extent that it presents a rival explanation for observed correlations among survey variables.

A number of techniques exist to reduce or even eliminate common method bias. Researchers should explicitly build these into their study design. One method is obtaining data for the independent and dependent variables from different sources, for example when employees provide data about one set of variables while their managers provide data about another, and the two sets of data are linked for analysis. Using manager data about employees is only appropriate when the manager can observe what is being assessed. Constructs that can be reliably assessed by either employees or managers are those that can be observed and reported relatively objectively, such as worker participation levels (Kozlowski and Klein 2000). Another common way of incorporating multisource data is to link survey data provided by employees or managers with data obtained from organizational records (for example, turnover). Keep in mind, however, that this requires that data not be anonymous. Another technique that can be used when examining relationships among aggregated (unit-level) constructs is the split-sample approach. In this approach, all units are split into two random halves, and the predictor variable is represented by data from split half A, while the criterion variable is represented by data from split half B (or vice versa). A final technique to consider is to separate the measurement of predictor and criterion variables by collecting survey data at two points in time or using different response formats to interrupt auto-responding. The former is not always desirable or possible, however, since it increases survey administration costs and can reduce the total sample size available for analyses, owing to respondent attrition over the two time periods.

Self-Identification   Perhaps one of the biggest challenges associated with conducting case study research on employment outcomes of employees

with disabilities is that most organizations lack up-to-date and complete records about which employees have disabilities, and participant employees may not feel comfortable or willing to self-disclose their disability status within the research project. In most cases, organizations are aware of only a small subset of the actual number of employees with disabilities. This is because many disabilities are not visible; thus employees have a choice as to whether they want others to know about their disability. Given that people with disabilities continue to face stigmas (see, for example, Hebl and Skorinko 2005; Ragins, Singh, and Cornwell 2007; Wang, Barron, and Hebl 2010), many choose not to disclose their disability to their organization (Colella and Stone 2005). Thus, it is difficult or perhaps even impossible for organizations to accurately analyze their employee survey or HR administrative data based on disability status. It has been shown that individuals tend to feel more comfortable disclosing their disability in a survey administered and analyzed by an external third party. In fact, in our own case study work, company surveys have suggested that the actual proportion of employees with disabilities in an organization may be five to ten times larger than the proportion known to the organization prior to the survey conducted by the external researcher(s). This is encouraging for third-party researchers conducting a case study. However, as with research using other methodologies, partial reporting or misreporting of disability status must not be dismissed in evaluating case study conclusions.

Questions That Can Be Addressed by Case Study Research

There are numerous subjective perceptions, attitudes, and experiences that researchers can learn about only by asking employees themselves. Asking a single organizational representative (an HR officer, for instance) to provide assessments about the subjective experiences of employees within the organization presents inherent challenges, of course. By their very nature, subjective experiences—including employee attitudes about their jobs, fairness perceptions, utility of available resources, quality of interactions with other individuals, and experiences

of inclusion—differ across individuals. Thus, any one individual's account of how things are in an organization is unlikely to be representative of the range of attitudes, perspectives, and experiences actually present across employees. Organizations comprise socially complex, hierarchically nested systems. The strength of case study research is that it explicitly recognizes this, with the goal of understanding variance *within* an organization. Rather than being treated as error variance, as is necessary in organizational-level research, the within-organization variance in work attitudes and experiences becomes treated as true variance, as the focal point of the research (cf. Nishii and Wright 2008; Wright and Nishii 2013).

More and more, researchers are adopting a multilevel approach to their research to examine how phenomena at one level of analysis are associated with phenomena at other levels of analysis, either in top-down or bottom-up processes (Kozlowski and Klein 2000). Top-down processes refer to when aspects of the work context, such as managerial behaviors or group norms, affect individual-level phenomena, either directly or by moderating the relationship between individual-level constructs. Bottom-up, or emergent, processes refer to phenomena that have their theoretical origin in the cognition, affect, motivation, behavior, or other characteristics of individuals, which, when considered in the aggregate, emerge as unit-level phenomena (Bliese 2000; Chan 1998; Klein and Kozlowski 2000). Many relevant examples of emergent phenomena are available, including the proportion of individuals in a unit who have disclosed their disability, collective employee perceptions about the inclusiveness of work-group climate, and the pattern of relationships between particular managers and their employees.

In our current case study work, by surveying employees with disabilities about their experiences and matching their data with data collected from their managers about their perceptions of disability practices, as well as other data collected from coworkers, we were able to see how these organizational actors interact in shaping the experiences of employees with disabilities. Some additional interesting questions that we were able to explore through these case studies are briefly described in the remainder of this chapter.

Individual-Level Employee Experiences

One example of a research question that can be pursued at the individual level of analysis is whether individuals with disabilities report work attitudes and experiences significantly different from those of their peers without disabilities. The data that we collected as part of these case studies confirm a disparity in employment experiences when comparing employees with and without disabilities. These results were all significant at the 99 percent level. In particular, with regard to perceptions of the work-group context, we found that employees with disabilities report significantly less favorable perceptions of the fairness with which employment practices are implemented ($t = 34.58$; p < .01), were less likely to report that the work-group climate is open to and values differences among employees ($t = 31.40$; p <. 01), that diverse employees are included in the group's decision-making processes ($t = 46.41$; p < .01), and that the group leader engages in authentic ($t = 7.68$; p < .01) and inclusive ($t = 5.94$; p < .01) leadership. Related to individual work attitudes, we found that individuals with disabilities report significantly less-favorable experiences regarding the receipt of adequate socialization once on the job ($t = 4.50$; p < .01), perceived organizational support ($t = 5.21$; p < .01), the quality of their relationship with the immediate manager ($t = 5.92$; p < .01), and the fit between one's skills and abilities and the demands of the job ($t = 9.92$; p < .01).

Our use of in-depth surveys also enabled an exploration of rates of disability disclosure, as well as some of the predictors and outcomes associated with it. In the federal agency, 58.6 percent of survey respondents with disabilities disclosed their disabilities to their supervisor, and 63.7 percent disclosed to their coworkers, but disclosure rates to more official entities was much lower: only 12.2 percent disclosed to HR, 15.5 percent using a self-identification form, and 7.5 percent to the EO office. Although disclosure rates were highest involving supervisors and coworkers, there appear to be greater psychological barriers to disclosure for individuals with mental and emotional disabilities, among whom only 38.5 percent disclosed to supervisors and 53.8 percent to coworkers. Given the interest that organizations have in being able to compile accurate statistics about the percentage of employees who have disabilities, disclosure to these official entities is of paramount importance, and therefore we further explored whether disclosure depends on disability visibility. We found that while 28.6 percent

of individuals with very visible disabilities have disclosed to HR, 33.3 percent through the organization's self-identification form, and 25 percent to the EO office, only 9.1 percent of individuals with invisible disabilities reported disclosing to HR, 15.3 percent through the self-identification system, and 4.7 percent to the EO office.

Results from this case study research also provide a picture of the types of accommodations requested and why; and for those individuals with disabilities who have not requested an accommodation, we have data to understand the reasons why not. In our federal sample, accommodations were most frequently requested by individuals with physical impairments (59 percent of individuals with physical disabilities requested an accommodation) or vision impairments (59 percent), followed by individuals with chronic health (48 percent), mental/emotional (48 percent), cognitive (33 percent), and hearing (29 percent) disabilities. The most commonly requested type of accommodation included changes to work tasks, job structure, or job schedule (40 percent), followed by physical changes to the workplace (22 percent), requests for new or modified equipment (20 percent), policy changes (5 percent), and changes in communication practices (5 percent). In this sample, only a small percentage of employees with disabilities indicated that they had not requested an accommodation that they needed. Among that group, the most commonly cited reasons for not doing so involved concern about the negative impact on future opportunities and/or being seen differently by one's supervisor.

Multilevel Relationships

Of primary interest in the research that we conducted as a part of the transdisciplinary team's efforts is understanding the factors that mitigate some of the negative work experiences that employees with disabilities report having. As indicated above, results of our case studies to date reveal that employees with disabilities tend to report significantly less favorable work attitudes and experiences on almost every work-attitude construct measured by these organizational surveys. A logical follow-up question is whether employees with disabilities who work in inclusive climates report more favorable experiences. Indeed, our survey results show that individuals with disabilities who work in inclusive climates report experiencing

greater disability-related inclusion (β = 0.14; p < .01), organizational commitment (β = 0.26; p < .01), job satisfaction (β = 0.29; p < .01), perceived fit between their skills and the demands of their job (β = 0.25; p < .01), and perceived organizational support (β = 0.27; p < .01).

In related research we conducted previously on disability inclusion, we found that the majority of managers surveyed reported being unaware of the various disability policies and practices in place within their organization (Nishii and Bruyère 2009). Thus in the current case studies, one of our goals was to see whether this finding would be replicated across different organizational contexts, and another was to explore the impact of managerial awareness on the experiences of employees with disabilities. To pursue this inquiry, we created a simple index (sum) across the eleven disability policies and practices we asked managers if they were aware of, and then averaged scores across the managers in a department. Results confirmed that the more managers overall were aware of disability policies and practices, the more favorable were employees' perceptions about the inclusiveness of the work environment (β = 0.20; p < .01).

Moreover, we found that when managers believed that their organization had adopted disability policies for strategic reasons, they were more likely to cultivate work-group climates that were experienced by employees as inclusive (β = 0.09; p < .01). However, when managers perceived that disability practices had been adopted merely to avoid looking bad to external stakeholders, employees working for these managers reported less favorable climate perceptions (β = –0.04; p < .01). In turn, collective perceptions of the inclusiveness of work-group climate predicted to what extent employees with disabilities felt fairly treated by their coworkers (β = 0.43; p < .01).

The multilevel analyses that we conducted using the data collected in the current case study research also revealed the critical role that managers' perceptions of disability initiatives had on the experiences of individuals with disabilities. For example, in our survey data, we found that the stronger the managers' perceptions were about the existence of barriers to the effective implementation of disability practices (for example, insufficient leadership support for and communication about disability, lack of training and reinforcement of training), the more employees with disabilities who report to them experienced disability-related exclusion from their coworkers (r = 0.35–0.62; p < .01), depending on the particular perceived barrier.

Similarly, the more that managers perceived disability practices (such as centralized accommodation funds, disability awareness training, and accessibility reviews) to be effective within their organization, the less disability-related exclusion their employees with disabilities experienced ($r = -0.17$ — -0.28 depending on the disability practice; $p < .01$), and the more they perceived HR practices to be implemented in a fair way within their units ($r = 0.15$–0.21; $p < .01$). Managers play a more direct role in influencing whether individuals with disabilities experience disability-related exclusion as well, in that employees who enjoy high-quality relationships with their managers are elevated to in-group status within their work groups, thereby benefiting from "safe passages" (cf. Nishii and Mayer 2009), as evident in the relationship between the quality of employees' relationships with their direct supervisor and experiences of disability-related harassment ($\beta = -0.31$; $p < .01$).

Multilevel models have also enabled us to examine the influence that coworkers have on the experiences of individuals with disabilities. For example, in related prior research, we found that the prevalence of accommodation requests among coworkers (regardless of whether the requests are made for a disability) influences whether individuals with disabilities feel comfortable asking for an accommodation for their disability (Schur et al. 2014). We reasoned that when an organization fosters a culture of flexibility and accommodation as a means of enhancing employee engagement and productivity, employees with disabilities benefit because their requests for accommodations are much less unusual. In the current research, we also examined the impact that coworker awareness of, and reactions to, one's accommodation requests have on the experiences of individuals with disabilities. Our survey data revealed that when the coworkers of individuals with disabilities who had requested accommodations were aware of the accommodation request, the individuals with disabilities felt that coworkers were more likely to see them for who they are ($r = 0.21$; $p < .05$), and when coworker reactions to their accommodation request were positive, they reported significantly higher levels of organizational commitment ($r = 0.24$; $p < .01$). In contrast, when individuals with disabilities perceived that their coworkers reacted negatively to their accommodation, they felt less embedded within their jobs ($r = -0.12$; $p < .05$) and the organization more generally ($r = -0.17$; $p < .05$), reported lower perceptions of being supported by their organization ($r = -0.17$; $p < .05$), and also reported

experiencing greater social isolation as a result of their disability ($r = 0.31$; $p < .01$). Furthermore, we found that when coworkers were able to appreciate the positive outcomes associated with the provision of an accommodation to an individual with a disability (for example, perceptions that the accommodation improved the individual's productivity, work-group safety, and the employee's interaction with coworkers), individuals with disabilities reported higher levels of embeddedness within their job ($r = 0.19–0.22$; $p < .01$) and organizational commitment ($r = 0.20–0.27$; $p < .01$).

An important next step in research about the role of managers in shaping the work experiences of individuals with disabilities is to examine the characteristics of managers that may influence the inclusion of people with disabilities. For example, we expect that managers who have a learning-goal orientation (VandeWalle 1997), or tend to approach situations with the goal of developing new understandings even if it means making mistakes, will be more adept at shaping work climates that are inclusive of individuals with disabilities. Given research that suggests that managers with learning-goal orientations can, through role modeling, establish group-level norms about engaging others openly and with the intent to learn across differences (Dragoni 2005), we expect that employees are likely to experience more positive interactions with their coworkers after disclosing their disability.

Considerations for Future Research

Given the paucity of research on the within-organization factors that impact the employment experiences and attitudes of individuals with disabilities, there is a virtually endless list of research questions still requiring the attention of researchers. For example, research is needed that employs longitudinal designs to enable researchers to examine (a) how disclosure to different targets impacts long-term employment outcomes; (b) whether members of disability employee resource groups develop relational ties with a broader network of individuals with influence, thereby facilitating employment outcomes; (c) how experience working with an individual with a disability broadens the awareness and openness of managers and coworkers over time; (d) the content and design of disability training programs that are the most effective in changing employee and manager

behaviors; and (e) the impact of having leaders in visible senior positions who disclose their disability on the inclusion experiences of lower-level employees with disabilities. Longitudinal research does not come without its share of challenges, however. Data collection involves significant administrative costs, particularly because the attrition of research subjects over time requires that researchers begin with samples that include substantially more participants with disabilities than are ultimately required to yield the statistical power needed to analyze the research models of interest.

In addition to these types of questions that are well suited for longitudinal research, we borrow from important trends in the broader diversity research to suggest three additional avenues for research. First, research has shown that developmental experiences that are challenging are critical for advancement into senior positions (DeRue and Wellman 2009; Dragoni et al. 2009; Dragoni et al. 2011), and the fact that women and people of color are less likely to be selected for stretch assignments may in part explain why they tend to be underrepresented in senior management positions (Eagly and Carli 2007; Eagly and Karau 2002; Ragins and Sundstrom 1989). There is good reason to believe that there are compounded benefits associated with having the opportunity to develop and be noticed early in one's career. When people have a chance to demonstrate their competence in visible assignments, they trigger a snowball effect wherein their experiences make them eligible for more such experiences, which quickly differentiate them from the rest. Research that examines the differential access that individuals with disabilities have to the range of developmentally challenging experiences that have been identified as critical for advancement would be highly valuable. Do individuals with certain types of disabilities (for example, psychological or cognitive versus physical) experience greater inequities in access to these job opportunities based on the stigmas or stereotypes associated with their disabilities (Cuddy, Fiske, and Glick 2007)? If individuals develop their disability after having had the opportunity to learn and advance from a key developmental assignment, are they able to overcome the biases that they might otherwise have experienced had they entered the organization with a preexisting disability?

Second, although it is reassuring to witness more and more organizations include disability as a focus of their broader diversity initiatives, it is

important for research to help organizations to understand how the experiences of individuals with disabilities are similar to, but also different from, those of members of other marginalized groups. Perhaps the two most obvious ways in which disability as a diversity dimension differs from other dimensions of diversity such as race and gender are visibility and permeability. For many, their disability status may not be visible to others, and therefore they are faced with the decision of whether to disclose their stigmatized identity. This is an important aspect of disability identity that differs from gender and race, and one with nontrivial implications. Individuals with invisible disabilities have a choice between "passing" as someone without a disability versus "revealing" their disability (Clair, Beatty, and MacLean 2005). Although individuals who opt to hide their disability status or engage in "passing" may be able to avoid being discriminated against because of their disability, passing can be associated with higher levels of psychological strain, social isolation, strained relationships, and more limited social networks (Clair, Beatty, and MacLean 2005).

The challenge for organizations is to be aware of these potential side effects, and moreover, to shape the factors that signal to employees that it is safe to disclose their stigmatized identity. These factors include the inclusiveness of the climate, policies implemented that exceed minimal compliance standards, visible presence of other employees (ideally including leaders) who have disclosed their disability, and transparency of organizational decisions (Clair, Beatty, and MacLean 2005). While each of these factors is also important for promoting fairness and inclusion for members of other marginalized groups, research that helps to identify nuanced differences to which organizations should attend involving individuals with invisible disabilities would be valuable.

The second characteristic that sets disability apart from other dimensions of disability is the permeability of the boundaries of this identity group. Any individual can acquire a disability at any point in life, and disability intersects with other demographic identities that are fixed, serve as the basis of status differences, and categorize individuals into in-groups and out-groups (Ellemers, van Knippenberg, and Wilke 1990). As such, disability as a social identity has the unique potential to bring together people who would otherwise consider themselves separated across an "us versus them" boundary. Research on how disability status intersects with other social group memberships to influence identity-conflict versus

identity-integration (Settles and Buchanan 2014) in diverse organizational contexts would thus be valuable. Also of interest would be research that examines whether priming people to understand the permeability of disability identity facilitates perspective taking and more earnest attempts at interpersonal learning, both of which are key ingredients for dismantling simplistic stereotypes and prejudice (Brewer and Miller 1984, 1988; Ensari and Miller 2006; Fiol, Pratt, and O'Connor 2009).

Finally, diversity research and practice more generally, as well as in relation to disability more specifically, have focused primarily on promoting fairness and eliminating discrimination (Dwertmann, Nishii, and van Knippenberg, forthcoming)—that is, on eliminating the obstacles to organizational entry, career advancement, and the social integration of members of historically marginalized groups. The primary emphasis is on eliminating negative outcomes or disparities. Despite the intuitive appeal of arguments about the business case for increasing diversity, there is very little empirical research on what might be called the "synergy" perspective of diversity according to which diversity is seen as a source of valuable information and perspectives that can, when carefully leveraged, benefit performance and innovation (Ely and Thomas 2001; van Knippenberg and Schippers 2007). Given that individuals with disabilities often require accommodations or changes to how they do their work, they have the potential to provide enormous informational benefits related to how work processes, systems, products, and services can be better designed. The idea here is not only that employees with disabilities have unique insights to offer, but that when work groups containing individuals with disabilities have the motivations, norms, and accountability structures necessary to encourage group members to challenge and debate each other's perspectives, the performance of the collective should also be enhanced (Mitchell, Nicholas, and Boyle 2009). Research that carefully examines the group conditions and processes involved in driving performance-benefits from disability diversity in work groups and organizations would represent a contribution not just to disability research but also to diversity research more generally.

6. Conducting Case Studies

1. Chapters 3, 4, and 5 further address these topics.

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