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Chapter 10
The Impact of Underemployment on Individual and Team Performance

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Keywords Underemployment · Time · Teams · Task performance · Extra-task performance

The issue of underemployment is one of increasing concern for countries across the globe. For example, in the USA estimates have put the number of underemployed as high as 20.3%, while in Europe the number of overqualified workers (just one dimension of underemployment) has been estimated at 21.5% (Groot & Maassen van den Brink, 2000). Unfortunately, given the current global economic crisis, this situation can only be expected to worsen in the near future. The international labor pool is becoming more educated and qualified (Peiró, Agut, & Grau, 2010) while organizations worldwide are seeking the minimum effective level of human capital in an effort to cut costs. As such, fewer jobs demanding high levels of qualification are becoming available on the labor market while the supply of employees with just such a profile continues to grow.

One issue at the heart of concerns about underemployment is the belief that underemployed individuals will underperform. The reasoning seems to be that underemployed individuals will not work hard because they find their jobs pointless and demotivating (e.g., Borgen, Amundson, & Harder, 1988) and consequently, performance will suffer. Indeed, there is a body of empirical work showing that if we broaden our definition of performance to include turnover and work withdrawal, this assumption is correct. However, Edwards and Shipp (2007) have recently pointed out that the effects of some types of underemployment on performance may, in some conditions, be positive. In fact, there are several studies that show that this too is correct (Fine & Nevo, 2008; Holtom, Lee, & Tidd, 2002; Erdogan & Bauer, 2009; Erdogan, Bauer, Peiró, & Truxillo, 2011). Underemployed individuals can be high performers as well.

This chapter will untangle some of these issues by exploring the empirical and theoretical links among different types of underemployment and performance at the individual and team level. We suggest that a deeper, and more complex, understanding of these relationships can be achieved by incorporating
well-established models of performance, expanding our definition of performance, and considering the dynamic nature of these relationships over time. We will begin by formally setting out our definition of underemployment, then move to a brief definition of performance and a discussion of the model of performance upon which we draw, before turning to the main body of the chapter to explore how underemployment of different types and degrees relates to performance.

**Underemployment**

Early research on employment status and its consequences took a dichotomous approach to the topic, with individuals categorized as either employed or unemployed (Dooley, 2003). However, as labor market flexibility increased and the field matured it became clear that other categories were possible, including that of inadequate employment. In an effort to describe this phenomenon, Hauser (1974) laid out a framework (the Labor Utilization Framework, LUF) that introduced a continuum of employment status ranging from “sub-employed,” or individuals who are not currently working and who had not looked for work during the previous 4 weeks because they felt no jobs were available, through “unemployed” to “underemployed.” He further split underemployment into a number of subcategories, including underemployed by low hours (or involuntary part-time employment), underemployed by low income (or working poor), and underemployed by occupational mismatch (or overeducated). Later researchers argued that yet more categories were possible, including contingent workers, involuntary temporary workers, wage underemployed (employees whose pay did not match their output), and even employees that lacked the equipment needed to achieve maximum efficiency (Dooley, Prause, & Ham-Rowbottom, 2000; Dooley, 2003; Feldman, 1996; International Labour Organization, 1998). To make things more complex, it is possible to belong to more than one category of underemployment. For example, temporary workers also typically have lower salaries as compared to permanent workers, making them underemployed both in wages and in the type of contract desired.

Clearly, as Friedland and Price (2003) point out, “there are almost as many operational definitions of underemployment as there are researchers who study the phenomenon” (p. 33). For our purposes, however, we will focus on two dimensions of potential underemployment: underemployment in knowledge, skills, or abilities (overqualification – a slightly broadened version of Hauser’s “underemployment by occupational mismatch”) and time-related underemployment (similar to Hauser’s “underemployed by low hours,” but including involuntary part-time work, temporary work, and contingent work).

Of the underemployment dimensions we discuss here, the connection with performance at the level of the individual and the team is perhaps most intuitive for overqualification. However, time-related underemployment also has clear (and some more subtle) implications for performance. Before we launch into a discussion
of these specific relationships, however, we need to define what we mean by performance and to discuss the relevant models of its antecedents and processes.

Performance

In this chapter, we will be exploring the effects of underemployment on performance at the level of the individual as well as at the level of the team. Because team performance is related to individual performance (although we are not suggesting that it is the simple addition of each individual team member’s performance), we will first describe performance at the level of the individual. Performance at the level of the team will be defined more thoroughly in the section on underemployment and team performance.

Although assessed and defined in slightly different ways by different researchers, there seems to be consensus that at its core, performance consists of goal-relevant behaviors under the control of the individual that contribute to the organization’s goals (e.g., Campbell, McCloy, Oppler, & Sager, 1993; Campbell, 1999; Motowidlo, 2003) and that performance is not a unidimensional construct. To address this multidimensional, behaviorally based conceptualization of job performance, Campbell et al. (1993) proposed a taxonomy of eight dimensions: job-specific task proficiency, non-job-specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision, and management/administration. According to the authors, these eight dimensions covered the latent structure of performance at a general level across all jobs. These dimensions were later grouped into two more general factors – task and extra-task performance – which have since received a substantial amount of attention in the literature (Dalal, Weiss, Welch, & Hulin, 2009; Motowidlo & Schmit, 1999; Motowidlo & Van Scotter, 1994).

Task performance (or task proficiency) refers to behaviors that contribute to the core transformation and maintenance activities in an organization, such as producing products, managing subordinates, or delivering services (Motowidlo & Schmit, 1999). Extra-task performance consists of active and volitional acts engaged in by individuals that include both organizational citizenship behaviors (OCBs) and counterproductive work behaviors (CWBs). OCBs refer to behaviors that contribute to improving the culture and climate of the organization, such as volunteering for extra work, helping and cooperating with others, persisting with enthusiasm, and supporting or defending the organization (Motowidlo & Schmit, 1999). In contrast, CWBs are acts that harm the organization and people within it, acts that generally go against the interests of the organization (Spector & Fox, 2005; Sackett & DeVore, 2002). These can range from damaging property or abusing coworkers to theft and withdrawal from work (Spector et al., 2006). Although other dimensions of performance have been proposed (e.g., adaptive performance; Hesketh & Neal, 1999; Pulakos, Arad, Donovan, & Plamondon, 2000; Schmitt, Cortina, Ingerick, & Wiechmann, 2003), for the purposes of this chapter we will focus on the two most common dimensions of performance: task and extra-task performance.
Models of Performance

It is well established that individual differences such as personality characteristics and abilities have a significant effect on performance (Schmidt, Hunter, & Outerbridge, 1986), but various models of job performance and its antecedents have been used over the past 20 years to explain the fact that these effects are mediated by job knowledge and skill. Hunter (1983) was among the first to model these two mediators empirically showing that the relationship between cognitive ability and performance was fully mediated by job knowledge and job skill. Schmidt et al. (1986) replicated and extended this study to add job experience as an antecedent to performance. They demonstrated that the effect of work experience, like ability, was fully mediated by job knowledge, and to a lesser extent, work sample performance. Borman, White, Pulakos, and Oppler (1991) expanded both the predictor and the criterion space with the addition of the personality variables of achievement orientation and dependability, on the predictor side, and awards and disciplinary actions, on the criterion side. Again, ability was related to job knowledge, job knowledge was related to task proficiency, and task proficiency was related to supervisory ratings of performance. The impact of achievement orientation and dependability on supervisory ratings was entirely mediated by awards and disciplinary actions (respectively). Interestingly, the Borman et al. paper also demonstrated that the effect of personality on task ratings followed a very different path than that of ability on task ratings. This finding opened the way for the inclusion of a third mediating variable: motivation.

Campbell and his colleagues (Campbell, 1990; Campbell et al., 1993) were the first to incorporate motivation into their model of performance and its antecedents, one of the most coherent and encompassing models to date. In line with the earlier findings suggesting a mediated effect of abilities on performance, they distinguished between three sets of variables in the model: “performance determinants” (the mediators; Campbell, 1990, p. 705), the antecedents of those performance determinants (individual differences and contextual effects, such as abilities, interests, education, experience, climate, and personality), and performance itself (see Fig. 10.1). Given the substantial empirical support for this model, this is the approach we adopt for the remainder of the chapter. As we will argue, the effects of some types of underemployment on performance are expected to differ depending on the performance determinant considered and the type of performance predicted.

Performance Determinants

As in preceding models of performance and its antecedents, the Campbell model established that the effects of individual differences on performance are fully mediated by job knowledge and skill (which Campbell and his colleagues relabeled “performance determinants”). Unlike previous models, however, in the Campbell model motivation was added as a third mediator and job knowledge was relabeled as “declarative knowledge” and job skill as “procedural knowledge and skill.”
According to their definition, declarative knowledge is the extent to which an employee has factual job knowledge and understands the task requirements of a job. Procedural knowledge and skill is the extent to which an employee knows how to perform a task, and motivation is defined as “the combined effect of three choice behaviors: (a) the choice to expend effort, (b) the choice of what level of effort to expend, and (c) the choice to persist in the expenditure of the chosen level of effort” (Campbell, 1999, p. 494).

**Antecedents of Performance Determinants**

Campbell (1990) pointed out that more than 100 years of research have given us models of performance that emphasize the role of abilities and context in shaping employee behavior. He argued that those abilities, contexts, and their interactions “are the direct predictors of individual differences on declarative knowledge, and procedural knowledge and skill” (p. 706). For example, general mental ability (GMA) has been repeatedly shown to be an antecedent to declarative knowledge and procedural knowledge and skill (Schmidt & Hunter, 1998). As GMA increases, individuals acquire more general knowledge and are able to learn and apply the necessary job skills. Personality too is modeled as an antecedent to procedural knowledge and skill and declarative knowledge, but some researchers have argued that it is more closely linked to motivation than to other performance determinants (Schmitt et al., 2003; Campbell & Kuncel, 2002).
Underemployment and Individual Performance

Overqualification and Performance

Overqualification, Declarative Knowledge, Procedural Knowledge and Skill, and Task Performance

In layperson’s terms, overqualification is generally defined as having surplus education, knowledge, skills, or abilities (Maynard, Joseph & Maynard, 2006) relative to what the job requires. In popular culture, overqualified individuals are thought to be undesirable employees due to the assumption that they will be bored, dissatisfied, and underchallenged at work (Bills, 1992). This is not without reason. A recent study by Watt and Hargis (2010) empirically demonstrated that perceived underutilization of skills was indeed related to boredom proneness. However, if we couch overqualification within a model of performance and its antecedents, it becomes important to understand how overqualification relates to an individual’s level of declarative knowledge, procedural knowledge and skill, and motivation.

One possible explanation for the relationship among overqualification and the determinants of performance can be understood in terms of a person–job fit argument (e.g., Edwards, 1991; Kristof, 1996). In the fit literature, it is generally argued that, to the extent that an employee possesses the knowledge, skills, and abilities necessary for the job, outcomes will be positive. If, however, an employee possesses too much of a given ability or skills (i.e., overqualification), then the effect on outcomes (e.g., job performance, voluntary turnover) is presumed to be negative (Edwards, 1991; Kristof, 1996). Edwards and colleagues (Edwards, 1996; Edwards & Shipp, 2007) hypothesize two processes by which overqualification can hamper performance: interference and depletion. Interference is what occurs when excess abilities in one job dimension reduce abilities in another dimension. Such a case may occur when an individual develops a specific ability beyond the level required by the job and, in doing so, leaves other abilities underdeveloped. In contrast, depletion results when excess ability in the present causes a decrement in the level of the ability in the future. In this process, it is argued that as excess abilities go unused they may atrophy or degrade over time such that they are no longer sufficient to meet future demands.

However, only one study to date has empirically demonstrated a negative relationship between overqualification and performance. In a sample of expatriate employees, Bolino and Feldman (2000) had employees rate their perceived overqualification as well as their own performance and reported a standardized regression coefficient of –0.16. The authors point out that this may in fact be because overqualified individuals know that they could do better and as a result rate their own performance less highly.

Other studies have obtained opposite results, reporting positive relationships between overqualification and performance (e.g., Fine, 2007; Fine & Nevo, 2008; Erdogan & Bauer, 2009). In terms of the Campbell model of performance, this makes sense. For example, individuals who are overqualified in terms of general
mental ability (GMA) have more cognitive resources, and thus they will be more likely to attain higher levels of declarative knowledge and procedural knowledge and skill (Schmidt & Hunter, 1998) and as a result are more able to perform. Similarly, individuals who are overqualified in terms of education or job experience are more likely to have already attained the declarative and procedural knowledge and skill necessary for performing the job at a high level (Erdogan & Bauer, 2009). Edwards and colleagues (Edwards, 1996; Edwards & Shipp, 2007) describe two alternative processes to interference and depletion that help understand how overqualified individuals could be high performers. In a process they termed carryover, they argue that overqualified individuals may apply their excess of abilities to demands of new performance-related tasks. They give the example of a training situation in which individuals whose technical skills become developed beyond those required for a particular task could go on to develop new expertise that transfers to other tasks. Alternatively, they point out that it may be possible that the savings in time or effort that overqualified individuals accrue can be reserved for future demands or be applied to other dimensions related to performance, a process they called conservation.

While empirical tests of these processes do not yet exist, there is empirical research that bears out the possibility that overqualified individuals can be high performers. Employees who perceive themselves to be overqualified receive higher performance ratings from supervisors (Fine, 2007; Fine & Nevo, 2008), rate their own performance more highly (Fine & Nevo, 2008), and have higher levels of objective performance (Erdogan & Bauer, 2009). All told, the fear that overqualified individuals will have lower levels of task performance (O’Brien, 1986; Tsang, Rumberger, & Levin, 1991; Feldman, 1996) is not borne out by the current empirical evidence, although admittedly, this evidence is still scant.

This is a paradox at the heart of the belief that overqualification leads to lower individual performance. Overqualified individuals, by definition, have the ability to do the job well, if not better than other employees, yet the belief persists that they are poor employees. Studies have repeatedly found that managers prefer not to hire candidates they deem overqualified (Bills, 1992; Maynard, Taylor, & Hakel, 2009). If one views the issue through the lens of a “can do” versus “will do” dichotomy (Schmidt et al., 1986), however, this fear begins to make more sense. The issue seems to be not whether overqualified individuals can do the job; rather it is whether they will do the job. In other words, it is a matter of motivation.

**Overqualification, Motivation, and Task Performance**

A larger variety of theoretical explanations are typically offered in the underemployment literature to explain why overqualified individuals should demonstrate lower levels of motivation and subsequently lower task performance.

A popular theoretical explanation draws from equity theory (Adams, 1963). Equity theory argues that employees compare the outcomes they get from their work (e.g., salary, responsibility, and recognition) and the inputs they invest in work to get those outcomes (e.g., education, experience, training, and effort). Perceptions
of equity depend on the ratio of these outcomes to inputs. Whether that ratio is considered reasonable (i.e., fair) or not will depend on what others receive based on the inputs they invest and the outputs they get (the others’ ratio). This, of course, involves a social comparison process. When the result of the comparison is reasonable, a positive social exchange can be initiated. When it is not reasonable, especially when the ratio of one’s outcomes to inputs is smaller than the others’ ratio, employees will take actions to restore equity. This restoration can take a wide variety of forms including cognitive re-evaluation, but what is of relevance for this chapter is the possibility that employees who perceive inequity may invest less time and effort in their work with the expected negative effect on task performance. Research has indeed shown the negative effects of perceptions of inequity (e.g., Harder, 1992) and the violation of psychological contracts (Guest & Clinton, 2010) on performance.

As applied to overqualification, this would mean that employees who are overqualified will attenuate their performance to maintain equity between their inputs and outcomes (Feldman, 1996) and choose not to perform to their full potential, especially if they perceive that the promises made have been violated. However, as popular as this theoretical approach is in the broader literature, most overqualification research does not directly assess equity perceptions or promise fulfillment, and it is unclear if these mechanisms are at work.

A different argument draws from the goal-setting literature (Bolino & Feldman, 2000). As is well established in goal-setting theory (Locke & Latham, 1990), goals that are difficult to achieve lead to higher task performance than do easier goals. More difficult goals direct attention and action, increase persistence and effort, and represent motivating challenges that require the use of knowledge and skills. Because overqualified individuals are expected to be underchallenged at work, any goals are more likely to be easy for them. Since easy goals do not generate sufficient attention (Locke & Latham, 1990), overqualified individuals will therefore perform below their ability. As was the case with equity-based approaches, no research has examined the relationship between overqualification and performance as potentially mediated by goal difficulty.

Indeed, empirical work directly relating overqualification to motivation as defined by Campbell (1999) – the choice to expend effort, the choice of what level of effort to expend, and the choice to persist in the expenditure of the chosen level of effort – is sparse. This is most likely due to the difficulty in operationalizing motivation (Campbell & Kuncel, 2002). Instead, most research use proxies for motivation such as positive affect or job satisfaction (see Anderson and Winefield, this volume). Of course this is reasonable given that, one of the key features determining whether people are happy at work is whether they have the opportunity to use their abilities. People need the opportunity to apply their skills and knowledge to do what they are good at, not only to solve problems and achieve goals but also to experience flow or a self-actualization that is satisfying in and of itself (Warr, 2007; Warr & Clapperton, 2010).

Overqualified people who are unable to fulfill their true potential tend to suffer a decrease in happiness and satisfaction (Johnson & Johnson, 1996, 2000). Although several meta-analyses have shown that the relationship between individual
task performance and attitudinal measures such as job satisfaction is modest at best (Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001; Petty, McGee, & Cavender, 1984), the relationship between task performance and happiness and positive affect seems to be stronger (Lyubomirsky, King, & Diener, 2005; Staw, Sutton, & Pelled, 1994; Wright & Staw, 1999). If workers do not enjoy their jobs and are frustrated because they cannot use their expertise, they will contribute less to performing the tasks required to attain the goals established, diminishing the levels of task performance.

At this point, it is interesting to note that although objective overqualification and perceived overqualification should be positively correlated, they may play different roles. Objective overqualification should have an effect on task performance through the acquisition of declarative knowledge and procedural knowledge and skill, while perceived overqualification should have an effect on task performance through motivation. So even if objectively overqualified individuals may be able to improve their task performance through increased knowledge and skills (especially compared to other people who are just qualified or even underqualified) – their level of perceived overqualification could simultaneously reduce their desire to do so. To date however, attempts to model the links among overqualification, motivation, and task performance have met with limited success (see Erdogan & Bauer, 2009). One possibility is that motivational factors are stronger predictors of extra task performance, rather than task performance (Motowidlo, Borman, & Schmit, 1997). We now turn to this particular dimension of performance.

**Overqualification and Extra-task Performance**

As Feldman and Turnley (2004) point out, there may be situational and financial constraints that limit an individual’s ability to act upon his or her desires to restore equity (Adams, 1963) or express boredom (e.g., Watt & Hargis, 2010), both of which would reduce their task performance. They argue that if individuals lower their level of contribution too much, they risk losing their jobs. Instead, as suggested by Motowidlo, Borman, and Schmit (1997), motivational factors may more strongly predict extra-task performance, such as volunteering for tasks that are not formally part of the job, demonstrating effort, or helping and cooperating with others.

Additionally, as Hulin and colleagues (Hanish & Hulin, 1990; Dalal & Hulin, 2008) argue, if one type of behavior is controlled (e.g., work rates are closely monitored and reductions in task performance are not possible without risking repercussions), employee dissatisfaction is likely to be expressed with an alternate behavior (e.g., theft). Therefore, if (as suggested by Feldman and Turnley, 2004), overqualified individuals cannot reduce their inputs to core performance, they will instead change their extra-task behaviors, decreasing OCBs such as volunteering, defending the organization, or filling in for others, and increasing their CWBs such as work withdrawal and theft.

**Summary of Findings**

Two points stand out about the body of research on overqualification and performance. One is that it is quite small. Our literature review uncovered only four
empirical studies relating overqualification to performance. The second point is that all these studies focused on only one dimension of performance: task performance. The relationship between overqualification and extra-task behaviors remains largely unexplored. Interestingly, given the discretionary nature of extra-task behaviors, this may be precisely the area in which the effects of overqualification (especially perceived overqualification) on performance are greatest.

**Time-Related Underemployment and Performance**

Compared to overqualification, the concept of time-related underemployment includes a wider array of categories, including part-time work, temporary work, and contingent work (Kalleberg, 2000). While the conceptual differences among these categories can be meaningful (e.g., Maynard et al., 2006), not much research has been done on the specific relationship of each of these types of underemployment with performance. Moreover, as Kalleberg (2000) points out that these categories frequently overlap. For example, 54% of temporary workers report also working part-time (Casey, 1991). Given these facts, in this section we will consider the effects of time-related underemployment jointly and not parse out the effect of each category.

One important aspect of time-related underemployment that does seem to have strong effects on performance is whether or not the situation is freely chosen by the employee (e.g., Krausz, 2000). For example, a person can choose to work at a job that is less than full-time to allow him or her balance work and family life (Von Hippel, Magnum, Greenberger, Heneman, & Skoglund, 1997), or to earn money when not in school, or even to have a variety of work experiences and acquire different skills (Von Hippel et al., 1997). Indeed, in comparisons between voluntarily and involuntary underemployed individuals it has been shown that those who choose to work part-time or in a temporary position (so as to balance work and family life, for example) are more committed to their organizations, experience less negative feelings toward their job (Feldman & Turnley, 2004), and show higher levels of initiative (Peiró, 2009). However, this preference for part-time and temporary jobs is not common. For example, in a representative sample of young Spanish employees aged between 16 and 30 years, Peiró (2009) reported that only slightly more than 17% preferred part-time work while almost 50% preferred full-time jobs. As such, we will focus on those employees who are involuntarily underemployed both because it is the most common condition and because the effects on performance seem likely to be more powerful.

**Time-Related Underemployment, Declarative Knowledge, Procedural Knowledge and Skills, and Task Performance**

The lack of opportunities to work full-time when it is preferred, together with temporary work that compels workers to be unemployed during the periods when they would clearly prefer to work, is certainly expected to carry a risk of poorer performance (Dooley & Prause, 2004). However, how these effects play out in the context
of the model of performance and its antecedents that we have described is not well understood. For example, how would being time-related underemployed relate to levels of, or acquisition of, declarative knowledge and procedural knowledge and skills?

One possibility is that people who are time-related underemployed simply have less declarative knowledge and procedural knowledge and skill to begin with than those employed full-time. That is, they come into the job with lower levels of these determinants and simply cannot do the job as efficiently as full-time employees. Indeed, there is some evidence that compared to permanent employees, temporary workers are less educated and less skilled (Paoli & Merllié, 2001). However, how this affects task performance is unclear given that levels of skill utilization between temporary and permanent workers appear to be similar (Paoli & Merllié, 2001). So, even if full-time employees do have higher levels of skill than do temporary employees, that additional skill may not be utilized.

Another possibility involves a more dynamic process. It may be that employees who are time-related underemployed may not be able to acquire the required declarative knowledge and procedural knowledge and skill on the job as easily as full-time, permanent employees. This may be either because they simply have less time to learn by doing or because they are excluded from training and other development opportunities by their colleagues or the organization as a whole. Indeed, in many cases the introduction of temporary workers can lead to higher levels of conflict in the workplace (Geary, 1992; Kochan, Smith, Wells, & Rebitzer, 1994), especially between those temporary workers and their full-time, permanent colleagues. When conflict and tension are high among these groups, the full-time employees may be less than willing to help their underemployed colleagues learn the required knowledge and skills.

Alternatively, the organization as a whole may simply neglect to train temporary employees because they do not see the point of expending time and money on an individual who will shortly be leaving (Kalleberg, 2000). In fact, in a sample of more than 5,000 employees from about 200 organizations in six European countries, Isaksson et al. (2010) found that common human resource practices such as training and development, performance appraisal, and performance-related pay were implemented far more frequently for the permanent workforce than for temporary workers. A related possibility is that time-related underemployed individuals seem to be generally stigmatized (Segal & Sullivan, 1997; Ferber & Waldfogel, 1998; Kalleberg, 2000; Tilly, 1996) and seen to lack intelligence and skills (Parker, 1994; Rogers, 2000; Smith, 1998; Williams, 2001). Boyce, Ryan, Imus, and Morgeson (2007) argue that this stigmatization may create a self-fulfilling prophecy whereby the organization does not offer training and development opportunities (for fear of wasting them on employees who are unable to take advantage of them), inevitably leading to the relative lack of skills among temporary.

Despite these intriguing possibilities, empirical and theoretical work that explains why time-related underemployment may affect levels of declarative knowledge and procedural knowledge and skill (and consequently task performance) is currently lacking. The processes of conflict, lack of opportunities, and
stigmatization suggested by Geary (1992), Kochan et al. (1994), Kalleberg (2000), and Boyce et al. (2007) may also affect performance through a different pathway. Temporary and part-time employees may be less willing to exert effort in situations where they feel they are not being treated as they deserve. In short, they may have lower levels of motivation. In fact, just as was the case with the relationship of overqualification to performance, most of the work on time-related underemployment and performance has examined the role of motivation.

Time-Related Underemployment, Motivation, and Task Performance

Feldman (1996) argued that underemployed people, including those time-related underemployed, would be more likely than other employees to be out job hunting or to take off “mental health days.” The argument is that underemployed workers are less motivated to perform beyond the minimum requirements of the job (Moorman & Harland, 2002) and that a feature of underemployment is that one will not be willing (or perhaps even able) to give the job his or her full concentration. As in the case with work on overqualification, the theoretical grounding for work on the effects of time-related underemployment on motivation does not argue for a direct assessment of effort à la the Campbell (1990) model. Instead motivation is indirectly incorporated via a number of proxies such as relative deprivation (Stouffer, Suchman, DeVinney, Star, & Williams, 1949), discrepancy (Lawler, 1973), and goal-setting theories (Locke & Latham, 1990).

Relative deprivation theory is highly related to equity theory in that it argues that employees will compare the outcomes they receive to those received by relevant others in the workplace. However, relative deprivation theory differs in two ways: (1) it does not make a comparison of ratios, simply a comparison of outcomes, and (2) it introduces another mediator to the causal chain such that when that comparison is unfavorable, individuals first experience relative deprivation and then become motivated to restore equity.

There are a number of ways in which part-time, temporary, or contingency workers may experience relative deprivation. One is simply by virtue of being involuntarily time-related underemployed. In general, part-time and temporary workers have lower salaries, lower social status in the organization, second-rate job characteristics, and inferior prospects than permanent employees (Segal & Sullivan, 1997; Ferber & Waldfogel, 1998; Kalleberg, 2000; Tilly, 1996). Another, more obvious source of relative deprivation for this group of employees is the number of hours worked. When employees want a permanent full-time job like most of their colleagues but are only offered part-time or temporary work relative deprivation theory would predict that they become motivated to balance out this difference by reducing their task performance.

In the only explicit test of relative deprivation theory among time-related underemployed workers, Feldman and Turnley (2004) compared levels of relative deprivation and performance among adjunct faculty and full-time faculty. While they found higher levels of relative deprivation among adjunct faculty, this was not significantly linked to differences in levels of task performance.
In contrast, Holtom et al. (2002) use another highly related theory, discrepancy theory (Lawler, 1973), to argue that matching employee preferences for working hours should lead to higher levels of task performance. Like relative deprivation theory and equity theory, discrepancy theory suggests that employees make a comparison of job features. However, in this case the comparison is between what an employee desires and what the employee gets, rather than a comparison of inputs to outcomes relative to some relevant other. As applied to time-related underemployment, this would suggest that employees who work the number of hours they desire should feel more positively toward the organization and more motivated to perform at a higher level than those who do not. Indeed, Holtom et al. (2002) found this to be the case. When employees reported having less (or indeed more) hours than they desired at work, they had lower levels of performance.

Finally, in terms of goal setting, it has been pointed out that compared to full-time and permanent workers, temporary workers experience less autonomy and perceive their job as less challenging (e.g., Benach, Amable, Muntaner, & Benavides, 2002; Schalk et al., 2010). As mentioned before, goal-setting theory explains that challenging jobs should enhance performance by directing attention and action, and increasing persistence and effort. Therefore, if the time-related underemployed find their jobs to be less challenging, lower levels of performance may result.

Interestingly, there is also the possibility that workers who are time-related underemployed might actually outperform full-time employees. In particular, time-related underemployed individuals may instead be highly motivated if they perceive their job as a stepping-stone toward full-time employment or toward better career opportunities (De Cuyper et al., 2008). In such a situation, temporary or part-time work may be seen by the employees as an opportunity to signal their potential value, almost like an audition (Broshak & Davis-Blake, 1999), and they may take the opportunity to demonstrate high effort and higher productivity (Mauno, Kinnunen, Mäkikangas, & Nätti, 2005). There is some evidence that this can be the case. Broshak and Davis-Blake (1999) found that temporary workers who were seeking to be hired as full-time workers had significantly higher productivity than regular workers.

**Time-Related Underemployment and Extra-Task Behavior**

Just as was the case with overqualification, employees who are time-related underemployed may face contextual or situational constraints on their ability to vary task performance (Feldman & Turnley, 2004). Just like their overqualified colleagues, they may instead express their lack of motivation through the performance (or non-performance) of extra-task behaviors. Given that prosocial extra-task behaviors like OCB are discretionary and not typically part of the job description of temporary or part-time workers (Feldman & Turnley, 2004), researchers argue that these behaviors are a social resource that employees have at their disposal to exchange with the organization if they feel well treated (Moorman, 1991; Kaufman, Stamper, & Tesluk, 2001) or to withhold from the organization to restore equity and balance inputs and outputs (Ang, Van Dyne, & Begley, 2003) when they feel poorly treated.
Given that part-time and temporary workers are generally worse off than their full-time, permanent counterparts on a range of variables including pay and status (Segal & Sullivan, 1997; Ferber & Waldfogel, 1998; Kalleberg, 2000; Tilly, 1996), and can be stigmatized (Boyce et al., 2007), a number of researchers have argued that employees who are time-related underemployed will demonstrate lower levels of prosocial extra-task behaviors such as OCBs. Indeed, the adjunct faculty in the Feldman and Turnley (2004) study that reported higher levels of relative deprivation also reported lower levels of OCBs, and Holtom et al. (2002) found a similar pattern with a sample of hospital employees. Again, however, if you approach OCBs as a resource to be exchanged, the predictions become more subtle. Employees who are time-related underemployed do in fact perform higher levels of OCBs when they have positive job attitudes (Moorman & Harland, 2002), when they have a more relational psychological contract (Kidder, 1998), or when they otherwise view their relationship with the organization positively (Van Dyne & Ang, 1998).

One thing missing from this body of work on time-related underemployment and extra-task behaviors is an examination of the effect on the darker side of extra-task behavior: counterproductive behaviors. There is no work that examines how or whether underemployed workers engage in higher levels of these undesirable behaviors rather than simply modulate their levels of positive behaviors. This is a logical extension of the current literature and is theoretically reasonable. Stealing from the organization, provoking internal conflict in the workplace, and indulging in sabotage (to name a few) are potential strategies that frustrated part-time, temporary, or contingent employees might use to restore equity.

Underemployment and Performance Across Levels

Although past research suggests that underemployment is related to lower organizational commitment, higher turnover intentions, and higher actual turnover (Maynard et al., 2006; Erdogan & Bauer, 2009) – all outcomes which are detrimental at the level of the organization – there is virtually no research on the effects of underemployment on performance at the organizational level. As DeNisi (2000) points out, “all performance in organizations, regardless of the level of analysis, must ultimately be a function of individual behavior” (p. 131). The problem, however, is that research on the effect of aggregated individual behaviors on organizational level outcomes is sparse (Schneider, Smith & Sipe, 2000). The reasoning is that there are “too many possible issues that intervene between the personal characteristics and the performance of the organization for the relationship to be possible” (Schneider et al., 2000, p. 112) or at least for it to be studied.

In this section, instead of trying to build theory linking individual underemployment to organization-level performance, we will develop some arguments that posit an effect for underemployment on team-level performance. Because teams are both more proximal to the underemployed worker and are more likely to be affected by the actions of one or more underemployed workers, and because there is some work
linking team performance to organizational performance (Guzzo & Dickson, 1996), this seems to be a reasonable starting point.

**Overqualification and Team Performance**

Traditional team performance models (Gladstein, 1984; McGrath, 1964) include as an input variable the pattern of members’ skills and the adequacy of those skills as antecedents of performance. More recent models (Klimoski & Jones, 1995) also consider the configuration of knowledge and skills as an input, and the use of those skills as a requirement for the correct processes to emerge and team effectiveness to improve. Although the effects of overqualification on task work might be similar to the effects shown at the individual level, because team members’ contributions to any particular task may be pooled and combined, the process is probably also much more complex. Teams can perform beyond the additive abilities of individual members (Cannon-Bowers & Salas, 2001), and one nonperformer in the team can lower an entire team’s performance.

On the one hand, overqualified individuals can, in a process similar to carry-over (Edwards, 1996; Edwards & Shipp, 2007), choose to make available or share their excess cognitive and skill resources with other team members when needed. Team members can take advantage of the individual learning capacity and cognitive stimulation of their teammates (especially in a context where different skills and knowledge are needed to respond to demands for flexibility and versatility), potentially increasing team performance (Hill, 1982). This type of sharing information and knowledge (Mohrman, Cohen, & Mohrman, 1995; Tjosvold, 1991), both in doing task work and in doing teamwork, improves team performance, especially when the information shared is unique (Mesmer-Magnus & DeChurch, 2009). In fact, two areas of research are especially relevant here: team learning and transactive memory systems.

First, team performance may be enhanced by team learning, or the activities through which a team obtains and processes the required knowledge (Edmondson, 1999, 2002). Team learning, in turn, is based on individual learning (Kozlowski, Chao, & Jensen, 2010) and requires, among others features, the transfer of information, knowledge, and procedural skills (Goh & Richards, 1997). Second, team performance could also benefit from transactive memory systems. As Wegner (1986) explained, a team’s transactive memory system consists of the knowledge stored in each individual’s memory combined with a metamemory containing information regarding the different teammate’s domains of expertise. This provides each group member with more knowledge than any individual could access on his or her own. Teams with effective transactive memory systems have quicker access to a larger amounts of knowledge, improved information integration (Cannon-Bowers & Salas, 2001), and superior decision-making processes (Stasser, Stewart, & Wittenbaum, 1995).

Overqualified employees have the potential to improve team performance via the transfer of knowledge and skills to the other members (even when team members’
roles are very different). But just as is the case with individual performance, the
crucial question is whether they will do so, and if so, when and why. Equity theory
(Adams, 1963) might posit that overqualified individuals who feel that the outcomes
they receive do not match these larger inputs (Feldman, 1996) would be expected
to be less willing to share their knowledge and skills. Inequity may be even more
salient at the team level than at the individual level, as team members provide a con-
crete social comparison point. Goal-setting theory suggests a different and opposite
relationship. If teamwork fosters a sense of empowerment and increases the use
of relevant abilities (Entrekin & Court, 2001) and this use of abilities has a posi-
tive reinforcing effect (Warr, 2007; Warr & Clapperton, 2010), it could mitigate the
negative effects of having an unchallenging job because team goals may be more
difficult and require the use of excess knowledge and skills.

Another factor that could mitigate the potential negative effects of individ-
ual overqualification in teams is recognition. Sharing relevant information and
knowledge with other team members to attain the team’s goals can elevate the
overqualified person’s status within the team (informally at least) and self-esteem.
As such, teamwork and the recognition of one’s peers may make under-challenging
work fulfilling (Warr, 2007; Warr & Clapperton, 2010).

Despite this array of theoretical possibilities, there is only one empirical study
that we know of that examined the effects of overqualified individuals at a level
higher than the individual. Tsang (1987) showed that overeducation (operational-
ized as the difference between education and education requirements for the job)
related negatively to individual job satisfaction (again a proxy of motivation and
work effort) after controlling for sex, race, age, and education, and that a firm
job satisfaction composite, in turn, predicted a firm production function. Although
this study is not without limitations, it offers some support to the argument that
the lack of effort of overqualified employees relates to a reduction in organiza-
tional performance. However, given that the outcome of interest was at the firm
level it is not clear whether these findings would generalize back to the team level.
Unfortunately, there is little work on the effect of teamwork on organizational per-
formance, let alone the effect overqualified individuals in teams have on team- and
organization-level performance.

Many question remain. What happens when proportions of overqualified indi-
viduals in a team vary – for example, when there is more than one overqualified
individual in a team or even when a whole team is overqualified? One might
speculate that as the proportion of overqualified individuals in a team increases,
overqualification becomes normalized and the negative effects on motivation could
be attenuated. Conversely, as teams reach higher proportions of overqualified indi-
viduals they may attain some sort of critical mass and be spurred to take action to
remedy their situation. In any case, the social dynamics, perceptions of inequity and
incentives to share knowledge and skills in those types of teams can be expected to
be quite different. Clearly this is a very fruitful area for future research and one with
important practical implications for organizations.
Time-Related Underemployment and Team Performance

As mentioned before, there is some evidence that temporary employees are less educated and less skilled than permanent full-time workers. This, of course, could affect task work and also teamwork through slower acquisition of the relevant declarative knowledge and procedural knowledge and skill by these employees, especially if all the team members have low skills and the task is complex (Tziner & Eden, 1985). However, more interestingly, when a team is comprised of a combination of standard employees and temporary, part-time, or contingent employees (time-related underemployed employees), regardless of the level of skill and education of these employees, the time-related underemployed team members would have had shorter (and probably poorer) social interactions with the full-time members of their team. Less interaction and fewer shared experiences should complicate the emergence of a positive team climate and the opportunity to develop a shared mental model about the equipment, the task, the team itself, and the situation (Cannon-Bowers, Salas, & Converse, 1993; Rentsch, 1990). Given that both team climate and team mental models have shown relationships with team performance (e.g., Anderson & West, 1998; Minionis, Zaccaro, & Perez, 1995; Schneider & Bowen, 1985), it makes sense to expect a reduction in team performance when part-time, temporary or contingent employees are part of the team.

But it is not just climate and shared mental models that may be influenced. Interaction among team members is also needed for the emergence of team learning and the transactive memory systems (Kozlowski & Ilgen, 2006). As mentioned, time-related underemployed team members may be stigmatized (Boyce et al., 2007; Ferber & Waldfogel, 1998; Kalleberg, 2000; Segal & Sullivan, 1997; Tilly, 1996) as marginal employees lacking intelligence and skills (Parker, 1994; Rogers, 2000; Smith, 1998; Williams, 2001). As a result, full-time employees, aside from not having the time or opportunity to share knowledge and skills with their time-related underemployed team mates, may not have the inclination either.

This last point relates directly to the motivational issues that arise when we consider the effects of time-related underemployed individuals in teams with full-time colleagues. Sharing of knowledge and skills is a two-way street. So, while full-time employees may not have the desire or the opportunity to share knowledge and skills, time-related underemployed employees may equally be reluctant to exert maximum effort to help the team. In fact, the experience of relative deprivation and inequity of those time-related underemployed workers will have even stronger effects on performance in teams than it does on individual performance because, in the context of a team, the immediate referent for social comparison purposes (i.e., other team members) is especially concrete and observable. As we pointed out earlier, however, there may be limits on how much time-related underemployed individuals can lower their level of contribution to teamwork without losing their jobs. Instead we expect that time-related underemployed employees will vary their level of extra-task behaviors (organizational citizenship and counterproductive behaviors) in a bid to restore equity.
Given that both the use of contingent employment and teams in organizations seem to be on rise, the likelihood that any one team will have at least one time-related underemployed member becomes greater. As such, understanding how the composition of a team in terms of the employment status of its members relates to that team’s performance becomes even more relevant. In addition, these processes (and indeed all the processes discussed to this point) need to be examined over time. Team compositions change over time as do the individuals and their jobs that make up the team. Only by looking at these effects longitudinally can we expect to better understand the relationship between time-related underemployment and team performance.

**Directions for Future Research**

In contrast to many other areas of the literature on underemployment, longitudinal work on the effects of underemployment is relatively robust. A substantial amount of work has been done in the area of the economics of underemployment over time in particular (see Wilkins and Wooden, this volume). Nevertheless, there remain quite a few areas yet to be explored. In particular, research on underemployment would be enriched by examining how employees change in a job, how jobs change, how employees recall and anticipate their underemployment, and how employees change their jobs.

**Change in the Person and Change in the Job**

Some of the processes relating underemployment to performance already discussed include the effects of time implicitly in their definitions, such as Edwards and colleagues’ (Edwards, 1996; Edwards & Shipp, 2007) four processes resulting from overqualification that can help or hinder performance (interference, depletion, carryover, and conservation). However, we believe the field would benefit from more explicitly modeling the role of time in the relationship of underemployment to performance. In their seminal chapter discussing issues of person–organization fit, Kristof-Brown and Jansen (2007) reintroduce the argument for the importance of fit itself varying over time. As the authors point out, research in fit does not deal very well with the possibility that either the person or his or her job may change over time. In their argument for “fit versus fitting,” they point out that people can be categorized as having fit with their job or not, but also that individuals may actively manage the extent to which they fit with a job, or that the job may dramatically change over the employment of an individual, or both. In short, fit changes.

This is especially relevant to research in underemployment. Most approaches to underemployment implicitly assume that the job or the person remains the same. However, one or both may be changing. Take the example of overqualification. Although determining whether or not someone is overqualified for a job is meaningful and is linked to a number of individual and team outcomes, it is equally
meaningful to examine how people become overqualified for a job, or alternatively how they move from overqualified to qualified, or even why people would stay in job for which they are overqualified. Kristof-Brown and Jansen (2007) identify three temporal features of fit which can be applied to underemployment specifically: magnitude (in terms of the absolute number of hours worked, or the extent of the difference in skills the individual has as compared to the skills needed), duration (how long the individual has endured this condition), and trajectory (in what direction the person or the job is changing or has changed).

For example, in terms of magnitude, a part-time worker who desires full-time work may react differently based upon how few hours he or she is working (e.g., 10 hours a week as compared to 25 hours a week). In terms of duration, the willingness of an employee to view part-time work as an “audition” for a full-time job (and the subsequent increase in task performance) can only last for so long, and, sooner or later, expectations for improvement, and in turn motivation and performance, can be expected to drop.

**Anticipating and Recalling Underemployment**

Relatedly, Shipp and Jansen (2005) argue that we must begin to consider not just “clock time” (or the actual passage of time) but also “psychological time” (expectations, anticipation, and recollections) in fit. They point out that retrospective and anticipated fit have already been found to influence the relationship between current fit and well-being. One would expect a similar effect when looking at underemployment. For example, the recollection of past underemployment may serve as contrast to current levels of underemployment such that when that contrast is favorable (current levels of underemployment are lower than recalled levels of underemployment in a past job), the effect on performance and turnover may be positive. And, of course, the opposite may occur. This may help explain why people stay in a job for which they are overqualified or time-related underemployed. It is simply because they see it as a better situation than what they had before. This possibility that our beliefs about our future fit to our jobs and our recollection of our past experiences on the job may moderate the effects of underemployment on performance is an intriguing one. Indeed, this is the process (although it is not couched in cognitive terms) underlying those part-time employees “auditioning” for full-time positions and outperforming full-time employees (Broshak & Davis-Blake, 1999; Mauno et al., 2005). They are anticipating the possibility that over time their jobs may fit their needs better.

**People Changing Their Jobs**

A final possibility takes us back to the idea of change over time. However, in this case it is not the possibility of a person changing or the job changing; rather it is
the idea of the person changing the job. This is what has been termed job crafting (Wrzesniewski & Dutton, 2001). Job crafting is related to older constructs such as role innovation and task revision (Staw & Boettger, 1990), but relies on different motivational structures and does not require high levels of empowerment or autonomy.

Job crafting clearly has implications for the performance of both overqualified and time-related underemployed (part-time, temporary, or contingent workers) employees. For example, overqualified workers may change the number or sorts of the tasks they perform (job expanding) or emphasize particular aspects of their job that they find most fulfilling (task emphasizing) in order to feel a sense of fulfillment or control over their work. Indeed, given that more and more people are looking for more than financial rewards from their work (Berg, Grant, & Johnson, 2010), this is likely to become an even more common practice. Employees seem to be looking for more than a job – they are looking for meaning, or as Berg et al. (2010) put it, a calling. As such, overqualified individuals might be especially likely to benefit from job crafting as a way to shape their jobs into something that gives them a sense of fulfillment. Being able to do so may prevent counterproductive work behaviors. In fact, the concepts of carryover and compensation (Edwards, 1996; Edwards & Shipp, 2007) may provide a theoretical framework explaining how overqualification leads to job expanding or task emphasizing and subsequent performance changes at the individual level. Overqualified individuals can dedicate their surplus time or skills to broadening their job responsibilities.

Employees who are time-related underemployed are also likely to job craft, but for different reasons. For example, temporary workers have been shown to change their rate of work to exert some control over their job or to show intense interest in the subject of their task (Rogers, 1995). Wrzesniewski and Dutton (2001) argue that given the stigmatization that comes with being a temporary worker (Boyce et al., 2007), this represents a change in how they think about the job and is an effort to sustain a positive sense of self (and to maintain relatively functional levels of motivation and performance). Again, this process may ameliorate some of the negative effects of being underemployed and lead to less counterproductive and more citizenship behaviors on the part of these employees.

Although the links to underemployment are compelling, there remains much work to be done in this area. Of particular interest is one of the finer points made by Wrzesniewski and Dutton (2001). They found that, in a sample of hospital cleaners, those most likely to job expand (increasing interactions with patients, other workers, and staff and helping the overall performance of the hospital) were those who felt that their work was highly skilled. Those hospital cleaners who felt the work was low skilled tended not to alter their job tasks or work relationship to engage with others in their workplace. This poses a unique problem for overqualified workers who would most benefit from job crafting, as those who perceived themselves as overqualified (or at least thought of their job as low skilled) were the least likely to engage in such a practice.
Conclusion

Research on underemployment and performance is still in its infancy. In terms of overqualification, the few studies we reviewed here suggest that overqualified employees can be good performers. The question is when they will perform well, and on which dimensions of performance. In contrast, for employees who are underemployed in time, the results suggest that temporary, part-time, and contingent employees are generally lower performers than permanent full-time employees. However, the processes that operate to explain these effects remain underexplored.

We believe that the field would further benefit by expanding our study of underemployment beyond the level of the individual to include teams and, eventually, organizations. As more underemployed individuals enter the workforce the experience of being underemployed will become far more common. This is especially relevant if we consider that, as we have pointed out here, the proportion of underemployed in a team or organization may have important effects on the social dynamics and overall perceptions that can lead to performance.

We are particularly intrigued by the idea of underemployment over time. The concepts of duration, magnitude, and trajectory (Kristof-Brown & Jansen, 2007) are useful frames for thinking about how underemployment effects may play out. For example, underemployment could be seen as a stagnating situation for an individual as he or she fails to grow or even lose skills or abilities, but it may also be seen as a stepping-stone and an opportunity to reach better employment. The perspective taken and the strategy an employee enacts may depend on the duration and the trajectory of one’s underemployment. As such, the choice of techniques such as job crafting versus counterproductive behaviors may be explained in terms of one or all of these three concepts. Work in these areas is moving forward, but many questions remain here as well.

Finally, most studies have focused on only one type of time-related underemployment, or on one type of overqualification (in skills, education, experience, or knowledge). But the interactions among these types of underemployment are potentially very instructive. For example, the effects of overeducation on performance may be attenuated by a lack of experience, and the effects of overqualification in skills may be modified by a lack of education. The empirical evidence for these possibilities is lacking, but it is another area that is certainly worth exploring.

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