Self-Leadership: A Multilevel Review

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Over the past 30 years substantial research has focused on the concept of self-leadership. The authors adopt a multilevel perspective to review this research at both individual and team levels of analysis. At the individual level, studies consistently show that increased self-leadership corresponds with better affective responses and improved work performance. Findings are not as consistent at the team level. Relationships between team-level self-leadership and both affective and performance outcomes appear to be moderated by contextual factors. The authors also identify internal and external forces that influence self-leadership. Among these forces, external leadership is particularly important, as self-leadership is not a complete substitute for external leadership. Specifically, external leadership in the forms of empowering leadership and shared leadership facilitate self-leadership of individuals and teams. The authors also identify a number of cross-level research questions that illustrate how future research can benefit from exploring ways that self-leadership at the individual level interacts with self-leadership at the team level.

Keywords: *self-leadership; teams; self-management; self-managing teams; multilevel analysis*

Management research places a great deal of emphasis on understanding leadership. The primary focus has historically been on exploring how supervisors and leaders influence followers. A different perspective, which was introduced to the management literature 30 years ago (Manz & Sims, 1980), takes an alternative approach by focusing on how people manage and lead themselves. Self-leadership posits that even though behavior is often supported by external forces such as a leader, actions are ultimately controlled by internal rather than external

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forces (Manz, 1986). Three decades of studies combined with increasing interest in internal regulation (Boekaerts, Pintrich, & Zeidner, 2000; Brockner & Higgins, 2001; Kanfer, Chen, & Pritchard, 2008) create a need for a review of self-leadership research.

A particular area of contribution for a self-leadership review is the integration of research findings across levels of analysis. Although initially developed in terms of individual employees leading themselves, the concept of self-leadership has been extended to the group level of analysis (Campion, Medsker, & Higgs, 1993; Cummings, 1978; Hackman, 1987). Collective groups of employees are seen as having the capacity to regulate their behavior internally. Self-leadership is thus a concept that spans organizational levels and ties together research at individual and group levels of analysis. Yet, most research on self-leadership has not taken into account the multilevel implications of self-leadership. We thus believe that some of the most interesting and novel conclusions about self-leadership, as well as avenues for future work, can be identified only by looking across levels. Indeed, assessing how internal control at one level affects the process of internal control at the other level can offer unique insights.

A major focus of this review is an emphasis on multilevel aspects of self-leadership. We accomplish this by first defining self-leadership and reviewing its historical progression. We then review measurement issues. We next examine outcomes that have been linked to self-leadership at both individual and team levels. We then provide a comprehensive review of internal forces that influence self-leadership at both levels, followed by a similar review of external forces. A subsequent section explores cross-level issues that are beginning to emerge.

Construct Definition and Historical Context

A theoretical framework for self-leadership presented by Manz (1986) is shown in Figure 1 and is largely grounded in the broader concept of control theory (Carver & Scheier, 1982). From this perspective, an entity (e.g., individual or team) self-regulates by first perceiving the situation and comparing its current state with identified standards. Next, a gap between the entity's current state and desired state is addressed by engaging in behavior to reduce the discrepancy from standards. The impact of new behavior is then assessed and incorporated as feedback into a perception of the situation, which begins the self-regulation cycle anew. In essence, self-leadership occurs when teams and individuals perceive a situation, choose to engage in behavior to align actions with standards, monitor activities and cognitions to encourage the desired behavior, and then assess how the behavior influences the situation (Manz, 1986). The extent of self-leadership increases to the degree that individuals and teams not only regulate compliance with external standards but also internally establish those standards. In order to clearly define self-leadership, and to place the construct in its proper historical perspective, we review research at both the individual and team levels of analysis.

Self-Leadership for Individuals

A classic definition of *self-control* (alternatively referred to as *self-management*) was offered several decades ago in the clinical psychology literature by Thoresen and Mahoney

Figure 1
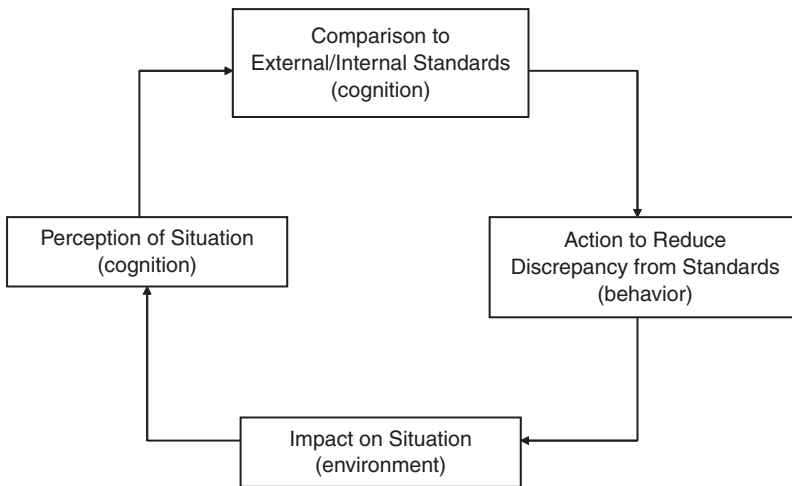**Theoretical Framework for Self-Leadership**

Figure adapted from Manz (1986).

(1974): "A person displays self-control when in the relative absence of immediate external constraints he or she engages in behavior whose previous probability has been less than that of alternatively available behaviors" (p. 12). The overriding concern of much of the related research and writing was on discipline-oriented application of primarily behaviorally focused self-influence strategies to reduce or eliminate undesired behaviors (e.g., smoking, overeating) and increase alternative desired behaviors (e.g., exercise, dieting).

The notion of self-influence subsequently received significant attention in the organization literature (cf. Andrasik & Heimberg, 1982; Cohen, Chang, & Ledford, 1997; Luthans & Davis, 1979; Manz, 1986; Manz & Sims, 1980, 1987). Early work drew from social learning and behavioral modification theories (Bandura, 1986; Luthans & Kreitner, 1985) and especially focused on the *self-management* of environmental antecedents and consequences of behavior (Cohen et al., 1997; Manz & Sims, 1987; Uhl-Bien & Graen, 1998). More specifically, it examined the development and practice of a variety of strategies for individual self-influence (Andrasik & Heimberg, 1982; Hackman, 1986; Luthans & Davis, 1979; Manz, 1986; Manz & Sims, 1980; Neck & Manz, 2010). These strategies include self-observation, self-management of cues, self–goal setting, self-reward/criticism, and rehearsal.

Self-observation fosters awareness of when certain behaviors occur and why they are chosen. This enhanced self-knowledge can provide information about behaviors that need to be strengthened, eliminated, or changed (Mahoney & Arnkoff, 1979). Self-awareness guides other self-leadership behaviors such as self–goal setting (Manz, 1986; Manz & Sims, 1980; Neck & Manz, 2010). Significant research has supported the role of setting and accepting

specific, challenging, but achievable goals for facilitating motivation to increase individual performance (Locke & Latham, 1990), and writings on self-leadership recognize that individuals can set their own goals to promote performance (Manz & Sims, 1980, 1990). In addition, self-reward can support and provide incentives for desired behaviors and goal attainment (Mahoney & Arnkoff, 1979; Manz & Sims, 1980; Neck & Manz, 2010). Self-rewards can vary from self-applied tangible incentives, such as a vacation or a meal at a favorite restaurant, or more cognitively based rewards, such as positive mental images or self-praise for completing challenging tasks. Self-criticism is an additional strategy for self-influence of behavior. However, self-criticism, especially when it is in the form of habitual self-punishment and guilt, has generally received mixed to negative support as a self-leadership strategy (Manz & Sims, 2001). Finally, behavioral rehearsal (or practice) prior to actual performance can promote refinement, improvement, and corrective adjustments for greater individual effectiveness with less costly errors (Manz, 1992; Manz & Sims, 1980; Thoresen & Mahoney, 1974).

More recently the concept of *self-leadership* has been introduced at least partly to distinguish between different levels of self-influence and to provide a broader, more encompassing perspective that includes but looks beyond a primarily discipline and behaviorally grounded self-management process. Consistent with the perspective we take in this review, Neck and Manz (2010, p. 4) broadly define self-leadership as "the process of influencing oneself." Manz (1986), who originally introduced the concept (see e.g., Manz, 1983), described self-leadership as "a comprehensive self-influence perspective that concerns leading oneself toward performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating" (p. 589). He also went on to point out that the self-leadership concept is distinguished from other related concepts such as self-control or self-management by allowing for addressing higher level standards that govern self-influence, more fully incorporating intrinsic motivation, and providing for a wider range of self-influence strategies (behavioral, cognitive, and intrinsically motivating). Specific self-leadership strategies include building natural rewards into tasks, self-management of beliefs/assumptions/mental images, self-dialogue, and thought patterns (Neck & Houghton, 2006).

Manz (1991) further clarified the distinctness of self-leadership from self-management by using three underlying questions: "What?" "Why?" and "How?" He specifically described self-management as

> a self-influence process and set of strategies that primarily address *how* work is performed to help meet standards and objectives that are typically externally set . . . [it] tends to rely on extrinsic motivation and to focus on behavior. (p. 17)

Alternatively, he described self-leadership as

> a self-influence process and set of strategies that address *what* is to be done (e.g., standards and objectives) and *why* (e.g., strategic analysis) as well as *how* it is to be done . . . [it] incorporates intrinsic motivation and has an increased focus on cognitive processes. (p. 17)

Among other things, this emphasizes that self-management processes are dependent on extrinsic incentives (e.g., pay and other external rewards for an employee performing autonomous work)

whereas self-leadership is less driven by external forces, though still allows for influences such as the empowering actions of a leader who creates intrinsic reward opportunities as well as external incentives. As will be discussed in more detail, there is somewhat of a paradox in that external leadership (focused on empowering and facilitating individual and team self-leadership) can not only be consistent with but is usually a necessary component of effective self-leadership in practice (Manz, 1991; Manz & Sims, 1987, 1990, 1991).

Self-Leadership for Teams

The concepts of self-management and self-leadership have both been extended to the team level of analysis. The roots of team-level self-influence can be traced to work design theories such as job characteristics theory (Hackman & Oldham, 1976) and socio-technical systems theory (Cummings, 1978). These work design theories operate under the premise that teams, rather than individuals, are the relevant unit of analysis. Unlike traditionally managed teams where members have little autonomy and limited decision-making authority, workers in self-managing or self-leading teams are given authority over work processes and are allowed to regulate their own behavior. For example, such teams generally have the authority to select and terminate workers, set their own work schedules, determine budgets, order materials needed for production, and monitor product quality (Barker, 1993; Stewart, Manz, & Sims, 1999).

However, as group-level self-management was emerging as an important concept in the teams literature, some researchers raised questions about the extent to which employees were actually self-managed in so-called self-managing contexts (Dunbar, 1981; Mills, 1983; Perlmutter & Monty, 1977). As one example, in a study of an insurance firm it was found that "self-managing" teams were introduced by the CEO to reduce the personal control of previously highly autonomous sales people (Manz & Angle, 1986). Another study concluded that an "iron cage" of new controls was created that resulted in employees being more closely controlled than prior to the introduction of "self-management" (Barker, 1993). Thus, while some researchers have viewed the terms *self-managing* and *self-leading* teams as being synonymous, Manz (1990, 1991, 1992) and his colleagues (e.g., Neck and Manz, 2010) have clearly distinguished the two in terms of the amount of self-influence they actually allow for organization members.

Making such distinctions is consistent with the work of other researchers who have addressed similar questions. For example, Hackman (1986) distinguished between teams differing in the degree of responsibility and authority allowed members in the areas of work performance, monitoring and managing the work, designing and modifying the work unit and its context, and providing overall direction for the unit's efforts. His resulting categories of teams, ranging from less to more overall self-influence, included externally managed, self-managed, self-designing, and self-governing teams. Parallel kinds of distinctions have also been made by other scholars, including Lawler (1986, 1988) and Walton (1985). Manz and Stewart (1997) also contrasted Total Quality Management (TQM) with a Sociotechnical Systems (STS) perspective and suggested that STS goes beyond the TQM notion of variance reduction and standardization to focus on deviation amplification and greater internal autonomy.

Figure 2
Continuum of Self-Leadership at Individual and Team Levels

Externally managed ———————	Self-management ———————	Self-leadership
No influence over What, How, and Why of Work	*Influence over How of work*	*Influence over What, How, and Why of work*
Dependent only on extrinsic incentives	*Mainly dependent on extrinsic incentives*	*Dependent on intrinsic and extrinsic incentives*

Ultimately, Manz (1990, 1991, 1992) assessed degree of team self-leadership in a way that is consistent with distinctions made at the individual level: for example, depending on the degree that teams were allowed to exercise self-influence over the what (standards and objectives), why (values and strategic reasons for the objectives), and how (the actual performance of the work) of work team performance.

Summary

It is clear from both the individual- and team-level perspectives that self-leadership is not a discrete construct. Rather, as depicted in Figure 2, self-leadership falls along a continuum ranging from low for behavior that is externally governed to high for individuals or teams who determine not only how to carry out tasks but also what those tasks are and why they should be done (Manz, 1992). Between external control and self-leadership lies self-management, which as noted earlier, entails individuals and teams determining primarily how to carry out tasks but *not* what the tasks are and why they should be done. Thus, the lower end of the self-leadership continuum would be described as an individual or team whose work standards are established solely by upper management. Individuals or teams move further up the continuum when they also address what the standards and objectives are and why they have been chosen.

That said, the continuous nature of the self-leadership construct has often been ignored, particularly at the team level. Indeed, even though studies in the literature often refer to teams being studied as self-managing or self-leading, this ignores the fact that the construct is continuous rather than discrete (Guzzo & Dickson, 1996; Kirkman, Rosen, Tesluk, & Gibson, 2004). For instance, it is possible that a so-called self-managing team could in fact be on the far right of the self-leadership continuum, but because team-level studies have largely disregarded the continuous nature of the self-leadership construct, the degree of internal control within the teams being studied is not readily apparent. Thus, for the sake of simplicity, in this review we use the broader term of *self-leadership* to refer to any individuals and teams that are somewhere along the self-leadership continuum beyond external control and include studies that indicated the individuals or teams under examination had at least some degree of internal control.

Measurement of Self-Leadership

Measurement at the Individual Level

Scales have been developed specifically to measure self-leadership at the individual level. Manz (1993a, 1993b, 1993c) developed a set of initial items designed to capture elements of both self-management and self-leadership. Self-management was conceptualized as strategies for getting oneself to complete difficult but necessary tasks and was assessed by scales capturing self-observation, cueing strategies, self–goal setting, self-reward, self-punishment, and practice. Self-leadership was conceptualized as more intrinsically motivated and included scales that captured distinguishing natural rewards, building natural rewards into work, choosing pleasant surroundings, building naturally rewarding activities into work, focusing on pleasant aspects of work, and focusing on natural rewards rather than external rewards.

Subsequently, Anderson and Prussia (1997) subjected the Manz scales to content validation. Raters placed the original 90 items into three categories: behaviorally focused strategies, natural reward strategies, and creating constructive thought pattern strategies. Of the items, 50 demonstrated a level of rater agreement sufficient to support content validation. These 50 items were completed by a different sample of participants and subjected to exploratory factor analysis. As a result, 10 underlying factors were uncovered, including self-observation, self–goal setting, self-cueing, self-reward, self-withholding, self-punishment, focusing thoughts on natural rewards, evaluating beliefs and assumptions, self-talk, and visualizing successful performance. Each of the 10 scales exhibited adequate reliability. Yet, the convergent and discriminant validity of the scales was questionable as relationships across the three broad categories were similar in magnitude to relationships within each category (average *r* both of .20). A subsequent confirmatory factor analysis (Prussia, Anderson, & Manz, 1998) was, however, consistent with three broad factors underlying the self-leadership measure.

Houghton and Neck (2002) further refined the Anderson and Prussia (1997) measures. They deleted items with large cross-loadings, reworded some items, and added new items. Confirmatory factor analysis supported a nine-factor structure for the 35-item scale with self-observation, self–goal setting, self-cueing, self–self-reward, and self-punishment representing behavior-focused strategies; focusing thoughts on natural rewards as a single indicator of representing natural rewards strategies; and visualizing successful performance, self-talk, and evaluating beliefs and assumptions representing constructive thought strategies. Sample items include "I establish specific goals for my own performance," "I use written notes to remind myself of what I need to accomplish," "I try to surround myself with objects and people that bring out my desirable behaviors," and "I use my imagination to picture myself performing well on important tasks." The factors loaded on a second-order factor, demonstrating the hierarchical nature of the construct. The Houghton and Neck scales thus offer an empirically supported measurement instrument that captures different aspects of self-leadership ranging from behavioral aspects of self-management to more advanced strategies related to cognitive aspects of true internal control.

Measurement at the Team Level

Self-leadership at the team level has been assessed broadly by capturing behaviors that are undertaken internally within the team rather than by an external supervisor. The notion of transferring leadership activities from external supervisors to teams themselves was advanced by Manz and Sims (1987) and is consistent with the substitutes for leadership perspective (Kerr & Jermier, 1978). Qualitative and quantitative work by Manz and Sims (1984, 1987) identified a number of behaviors that represent team self-leadership. Teams exhibit self-leadership when they apply self-control to production management activities by initiating behaviors such as repairing equipment, obtaining production materials, performing quality control inspections, preparing budgets, recommending engineering changes, and shutting down assembly processes if quality is wrong. Self-leadership also encompasses the application of self-control principles to coordinate interpersonal interactions. For instance, teams conduct group meetings, establish break schedules, and make specific work assignments. Moreover, self-leading teams perform human resource activities such as selecting new employees, training each other, keeping records of hours worked, evaluating members for pay raises, and dismissing low performers.

In one of the few attempts to actually assess degree of self-leadership at the team level, Stewart and Barrick (2000) asked whether the team or an external leader completed 20 different tasks such as conducting meetings, changing work processes, and determining overall business strategy. They used responses to create a quantitative measure of team self-leadership and found the measure to adequately capture differences in team-level self-leadership. Teams performing more self-governing activities were assigned a higher level of collective self-leadership. However, very little work has been done to capture variation in self-leadership for teams. Teams are often simply described as self-managing, which, as described earlier, disregards the fact that the construct is continuous rather than discrete (Guzzo & Dickson, 1996; Kirkman et al., 2004). Additional work is thus needed to better capture where teams fall along a continuum from externally led to truly self-leading.

Measures of team-level autonomy (e.g., Campion et al., 1993) can direct efforts to better capture team self-leadership. Unfortunately most autonomy measures do not address whether teams internally establish standards and objectives. Yet, a step toward better measuring collective self-leadership might be adapting the Work Design Questionnaire developed by Morgeson and Humphrey (2006). Although targeted at individuals rather than groups, the questionnaire assesses three types of autonomy: work scheduling, work methods, and decision making. These concepts seem to fall along a continuum similar to self-leadership in that autonomy over work scheduling and work methods is similar to determining *how* to complete tasks, whereas autonomy over decision making gets closer to determining *what* to do and *why*.

Summary

The Houghton and Neck (2002) scales represent a validated measure of self-leadership at the individual level. The scales seem adequate for capturing different facets of self-influence and are consistent with a conceptualization of self-leadership as a continuous construct that

ranges from external control to more advanced forms of self-control. Measurement is not, however, as well developed at the team level of analysis. Additional work is needed to establish a reliable and valid measure of the extent to which teams engage in self-leadership.

Self-Leadership and Associated Outcomes

Outcomes of Individual Self-Leadership

Considerable research has revealed positive effects of self-leadership on work-related outcomes. These studies have been conducted in a variety of circumstances such as individual members in team contexts (Cohen et al., 1997; Manz & Sims, 1987; Uhl-Bien & Graen, 1998), for employee trainees (Frayne & Geringer, 2000; Frayne & Latham, 1987), college students (Prussia et al., 1998), and employees whose organization had experienced bankruptcy (Neck & Manz, 1996). Table 1 summarizes key results from these studies.

A recent study of 308 companies over a 22-year period found increasing individual self-control to be one of the most effective methods for improving employee productivity (Birdi et al., 2008). Specifically, employee behavioral control was found to be more effective than alternative management strategies such as lean production. In order to isolate the effects of employee behavioral control, a number of studies have specifically examined how self-leadership training influences employees. These studies (Frayne & Geringer, 2000; Frayne & Latham, 1987; Godat & Brigham, 1999; Latham & Frayne, 1989; Neck & Manz, 1996) provide support for self-leadership as a set of control strategies that can be taught to increase self-leadership practice and subsequent employee productivity.

Self-leadership has been shown to result in greater career success for individuals (Murphy & Ensher, 2001; Raabe, Frese, & Beehr, 2007). Greater internal control has been specifically linked to favorable internal states and beliefs such as reduced stress and anxiety (Saks & Ashforth, 1996) and increased self-efficacy (Latham & Frayne, 1989; Prussia et al., 1998). Self-leading employees are better adjusted and more confident, which increases the likelihood that they will be successful (Stajkovic & Luthans, 1998). Increased self-leadership has also been linked with greater job satisfaction (Neck & Manz, 1996; Uhl-Bien & Graen, 1998) and reduced absenteeism (Frayne & Latham, 1987; Latham & Frayne, 1989).

Outcomes of Team Self-Leadership

At the team level, research has generally compared the effectiveness of self-managing teams with traditional teams. Table 1 presents a summary of relevant studies. The effects of self-leadership on performance outcomes at the team level are not clear-cut. On the positive side, the adoption of self-leading teams has been found in some studies to improve team-level productivity relative to traditionally managed teams (Cohen & Ledford, 1994; Cordery, Mueller, & Smith, 1991; Elmuti & Kathawala, 1997; Fredendall & Emery, 2003; Stewart & Barrick, 2000; Trist, Susman, & Brown, 1977; Wall, Kemp, Jackson, & Clegg, 1986). De Dreu and West (2001) also concluded that teams are most creative when they have individuals

Table 1
Literature Review on Outcomes of Self-Leadership Behavior
at Individual and Team Levels

Outcomes	Individual-level findings	Examples of studies	Team-level findings	Examples of studies
Productivity/quality	(+)	+ Birdi et al. (2008) + Frayne and Geringer (2000)	(+, Ø)	+ Stewart and Barrick (2000) + Cohen and Ledford (1994) + Millikin, Hom, and Manz (in press) Ø Devaro (2006)
Creativity	*	* No studies available	(+)	+ DeDreu and West (2001)
Self-efficacy	(+)	+ Prussia, Anderson, and Manz (1998) + Latham and Frayne (1989)	(+)	+ Kirkman and Rosen (1999)
Psychological empowerment	*	* No studies available	(+)	+ Kirkman and Rosen (1999)
Job satisfaction	(+)	+ Uhl-Bien and Graen (1998) + Neck and Manz (1996)	(+, Ø, −)	+ Wall, Kemp, Jackson, and Clegg (1986) Ø Cohen, Chang, and Ledford (1997) − Mueller and Cordery (1992)
Organizational commitment	*	* No studies available	(+, Ø, −)	+ Cordery, Mueller, and Smith (1991) Ø Kemp, Wall, Clegg, and Cordery (1983) − Mueller and Cordery (1992)
Absenteeism	(−)	− Frayne and Latham (1987) − Latham and Frayne (1989)	(+, Ø, −)	+ Cordery et al. (1991) Ø Cohen and Ledford (1994) − Barker (1993)
Turnover	*	* No studies available	(+, −)	+ Wall et al. (1986) − Seers, Petty, and Cashman (1995)
Stress/anxiety	(−)	− Saks and Ashforth (1996)	(+, −)	+ van Mierlo, Rutte, Seinen, and Kompier (2001) − Melin, Lundberg, Soderlund, and Granqvist (1999)
Career success	(+)	+ Murphy and Ensher (2001) + Raabe, Frese, and Beehr (2007)	n/a	n/a

Notes: + = studies show increased levels of the variable (e.g., higher job satisfaction, higher turnover) resulting from self-leadership; Ø = zero difference in level of variable resulting from self-leadership; − = decreased levels of the variable resulting from self-leadership (e.g., lower job satisfaction, lower turnover).

who provide ideas and solutions that dissent from the majority consensus, but that such dissent is only helpful when the team has enough internal control to truly manage its decision-making process. Similarly, Gilson and Shalley (2004) found that teams with shared goals

and participative decision making had higher levels of creativity. Research has also tended to support the relationship between team self-leadership and improved quality (e.g., Batt & Applebaum, 1995; De Jong, Ruyter, & Wetzels, 2006; Elmuti & Kathawala, 1997).

Other studies, however, do not paint such a universally "rosy" picture for the effects of team self-leadership on team performance outcomes. DeVaro (2006) found, for instance, that closely supervised teams had output equivalent to teams with high internal control. Furthermore, a meta-analysis on high-performance work practices by Combs, Liu, Hall, and Ketchen (2006) revealed, based on results from eight studies, that only a modest relationship ($\rho = .06$) exists between the adoption of self-leading teams and organizational performance. Barker (1993) also observed that self-leading teams can become dysfunctional over time if team norms become overly rigid. Thus, research related to the outcomes of self-leadership behavior for teams suggests that it may not have a universally positive effect on productivity and performance.

Research on the effects of team self-leadership on job attitudes and withdrawal behaviors also suggests a mixed situation with potentially moderated relationships. On one hand, several studies have shown that workers in self-leading teams tend to have higher levels of job satisfaction (Batt & Applebaum, 1995; Cohen et al., 1997; Cohen & Ledford, 1994; Kemp, Wall, Clegg, & Cordery, 1983; Pearson, 1992; Seers, Petty, & Cashman, 1995; Wall & Clegg, 1981; Wall et al., 1986; Weisman, Gordon, Cassard, Bergner, & Wong, 1993) and organizational commitment (Batt & Applebaum, 1995; Cohen et al., 1997; Cordery et al., 1991) than members of traditionally managed teams. Elmuti and Kathawala (1997) showed that team self-leadership improved team members' quality of work life perceptions. Melin, Lundberg, Soderlund, and Granqvist (1999) also found that self-leadership at the team level induced less employee stress than traditional work designs.

Other studies show no difference in levels of job satisfaction (Boonstra, 1998; Cohen et al., 1997) and organizational commitment (Cohen & Ledford, 1994; Kemp et al., 1993; Wall et al., 1986) between workers in self-leading versus traditional teams, whereas some studies have found that self-leading teams can lead to lower levels of satisfaction and commitment (e.g., Mueller & Cordery, 1992) and higher levels of absenteeism and turnover (e.g., Cordery et al., 1991; Wall et al., 1986). A few studies also show that self-leading teams can induce more stress and burnout than traditional teams (Barker, 1993; Batt & Applebaum, 1995; van Mierlo, Rutte, Seinen, & Kompier, 2001). In addition, the effects of self-leading teams on job attitudes may be time dependent. For instance, Cordery et al. (1991) found that self-leadership was initially associated with more favorable attitudes than traditional leadership, but that this difference diminished about 20 months after the introduction of self-leading teams. Finally, Batt (2004) found that while participation in self-leading teams was associated with higher satisfaction for workers, it had the opposite effect on supervisors.

Summary and Research Guidance

The general pattern of results related to outcomes suggests that self-leadership is generally beneficial at the individual level but context dependent at the team level. Having individuals regulate their own actions is consistently helpful both to them personally and to the

organization. Self-leading employees have more positive affect at work. They also tend to have higher productivity and more fulfilling careers. In contrast, self-regulation at the team level may not be beneficial and in fact may be harmful in certain contexts. This moderated relationship exists for both affective and performance outcomes. One potential moderator is task type. Team-level self-leadership appears to consistently improve creativity. The benefit of increased creativity (De Dreu & West, 2001; Gilson & Shalley, 2004) combined with the results of Stewart and Barrick (2000), who found relationships with team self-leadership to be positive for creative tasks but negative for mundane tasks, highlights task differences. Self-leadership in teams seems to be most helpful when there is a need for adaptation and creativity. Other potential moderators at the team level will be identified as we review internal and external antecedents.

Reviewing differences in outcomes at the individual and team levels also reveals some areas for future study. Although there is evidence of self-leadership improving creativity for teams, we could not identify studies examining creativity at the individual level. Many aspects of self-leadership seemingly encourage creativity. Mental imagery should lead to more diverse inputs, and seeing problems as opportunities rather than obstacles should help increase the persistence necessary for implementing creative ideas (Neck & Manz, 2010). Future work should thus explore creativity for individuals. We also failed to identify studies related to organizational commitment and turnover at the individual level. This gap is interesting, as truly self-leading individuals would logically be expected to be guided by internal rather than external standards. It thus seems possible that self-leading individuals may be less committed to organizations and more likely to leave if the organization does not share their standards. Future work is thus needed to determine if increased self-leadership reduces organizational commitment and increases employee turnover. Findings like this would be interesting given that the research on individual self-leadership has so far proven to be overwhelmingly positive.

Another observation is that even though the distinction between self-management and self-leadership has been advanced theoretically, research does not appear to have explored questions about the optimal level of self-leadership at either the individual or team level. More studies are needed to determine whether relationships with self-leadership are linear. Is more self-leadership always better, or can too much internal control eventually become problematic? Can some of the inconsistent findings at the team level be explained by differences in level of self-leadership? We discuss the possibility of greater self-leadership not always being better across levels when we look specifically at cross-level issues. Nevertheless, more empirical work is needed to clarify the form of relationships between self-leadership and outcomes.

Internal Forces

Individual Level

The self-leadership literature has expanded beyond behaviorally focused considerations and external processes to examine internal forces. In particular, the literature has focused on

the role of intrinsic or natural rewards and the self-influence of thoughts (cf. Manz, 1986; Neck & Manz, 2010). There is also emerging work in the area of emotion regulation.

Natural reward. Drawing from self-determination theory (Deci & Ryan, 1985), self-leadership emphasizes the role of "natural rewards," or intrinsic rewards derived from performing activities themselves, as an important internal force of self-leadership (Manz, 1986). Specifically, cognitive self-leadership advocates that individuals can adopt "natural reward strategies" (Neck & Houghton, 2006) to motivate themselves by embedding tasks with intrinsic rewards. Furthermore, they can purposely focus thinking on the natural rewards that are part of task performance and thereby cognitively experience intrinsic motivation without necessarily altering the physical nature of tasks (Houghton, Neck, & Manz, 2003; Manz & Sims, 2001). As an example, nurses can more favorably connect with tasks that lack natural motivation, such as bathing patients, by focusing on how such tasks promote patient comfort (Gagné & Deci, 2005). Thus, by embedding tasks with natural rewards, individuals are argued to experience greater perceptions of control over their work (Manz, 1986). The efficacy of this natural reward–based self-leadership approach has been discussed and supported. For example, Ilgen and Hollenbeck (1991) pointed out that most jobs consist of "emergent" tasks that can be redefined by employees to intrinsically enrich the work. Wrzesniewski and Dutton (2001) supported this assertion, indicating that occupational identities can be crafted in an uplifting manner by some menial laborers through injecting meaning into their work and expanding their duties. The importance of intrinsic rewards for self-leadership has been further emphasized in writings on personal initiative and proactive personality by revealing that action-oriented, persistent, self-starting persons tend to initiate and adapt work situations to foster and motivate their own higher performance (Frese & Frey, 2001; Seibert, Crant, & Kraimer, 1999).

Thought self-leadership. Beyond the natural rewards focus, research has examined a variety of other specific strategies for "thought self-leadership" as a means for individuals to manage their own thinking tendencies (Neck & Manz, 1996, 2010). Specifically, mental imagery of performance, constructive self-talk, and identification of alternative beliefs to currently held dysfunctional beliefs can foster self-efficacy, the setting of challenging goals, and work persistence that can enhance effectiveness (Stajkovic & Luthans, 1998).

Studies have examined how self-leadership links with individual cognitions. Much of this work centers on the self-influence of patterns of thinking and how they emerge and unfold via thought self-leadership strategies (Manz, 1986; Manz & Sims, 2001; Neck & Manz, 2010). One study reported that insurance agents who displayed more optimistic explanatory styles tended to sell more insurance and have greater job longevity than agents with more pessimistic viewpoints (Seligman & Schulman, 1986). College students who more consistently displayed a positive outlook achieved higher grades (Prussia et al., 1998). Meanwhile, a nationwide study of 3,580 managers in a *Fortune* 100 corporation revealed that higher performing managers' thought patterns about work-related hindrances centered more on external factors (e.g., lack of promotion opportunities) while lower performers focused more on personal shortcomings such as skill deficiencies in communication or technical areas (Manz, Adsit, Campbell, & Mathison-Hance, 1988). The authors concluded that the higher performers'

thought patterns, which focused more on external obstacles as opposed to personal deficiencies, may have enabled them to increase self-efficacy perceptions and a sense of personal control.

Other research supports the significant role of thought self-leadership. For example, a study found that incoming hotel room cleaners who saw performance as a result of effort as opposed to luck stayed in their jobs longer (Parsons, Herold, & Leatherwood, 1985). Furthermore, Judge and Locke (1993) and Wanberg and Kammeyer-Mueller (2000) reported that employees who were able to avoid irrational thoughts felt more positively about their jobs. Finally, research studies that centered on interventions to enhance individual internal self-talk have strengthened or enhanced employee confidence for learning complex skills (Kanfer & Ackerman, 1996), reemployment of displaced managers (Millman & Latham, 2001), performance of student teams (Brown, 2003), and employee morale in a bankrupted firm (Neck & Manz, 1996). Individuals who focus on constructive thinking and natural rewards experience improved efficacy, which leads to higher performance.

Emotion regulation. Linkage with the emerging issue of self-influence of emotion is a particular area where future self-leadership research related to inner forces is needed. In the psychology literature, Gross (1998, 2002) has introduced a modal process model of emotion regulation (ER) that elucidates different classes of emotional self-regulation. In essence, just as a variety of strategies for individual self-leadership of behavior have been revealed in the self-leadership literature, individual strategies can be applied as methods for exercising self-influence over emotion. Côté (2005) has extended this work to employees and organizations. Although little empirical work in the management literature has amassed in this area, this cutting-edge perspective offers the potential to help categorize and better understand ER strategies as a form of self-leadership that can enhance personal effectiveness and well-being.

Strategies for ER can be divided into the broad categories of *antecedent-* and *response-focused strategies* (Gross, 1998; Gross & Thompson, 2007). Antecedent-focused strategies involve self-regulation choices that occur before more fully developed emotional responses are triggered and can include both situation-based strategies and modifying cognitions (Gross, 2002). These strategies include purposeful selection of provoking situations, modification of such situations, managing one's focus of attention, and cognitive change that is connected to emotion. For example, promoting positive emotions via intentional selection or modification of situations, such as selecting pleasant work activities or altering a work process to increase its enjoyment, represent antecedent ER strategies. Intentionally focusing one's attention on positive aspects of a work situation represents yet another strategy. Similarly, by reinterpreting a troubling situation, such as a disagreement with a colleague, as a constructive problem-solving event rather than a disturbing conflict is an example of a cognitive ER strategy. As yet another example, drawing from Kuhl (1985), Kanfer and Heggestad (1997) have considered individual options that enable gains in "emotional control" (minimizing worry and distracting thoughts) and "motivational control" (reinforcing persistence).

Response-focused strategies, on the other hand, attempt to address emotional responses after they have already been triggered (Gross & Thompson, 2007). An example of a response strategy might include choosing to suppress emotional reactions (by taking deep relaxing breaths and counting to 10 in order to calm down) that might otherwise lead to "telling an

argumentative colleague off" and consequent long-term work relationship problems. Or, a person might choose to suppress true emotions that could trigger dysfunctional behavioral displays in order to instead act out a role that is consistent with company policies, such as "always greet customers with a smile" and "the customer is always right." Note that a proactive stance that is primarily concerned with shaping the actual emotion experienced tends to focus more on antecedent emotion regulation strategies. While efforts to apply response strategies, such as trying to relax various muscle groups or suppressing difficult emotions and choosing to act in ways that do not reflect true but undesired feelings, can be used to regulate emotions and connected behaviors, they tend to be less useful in shaping authentic emotional experience (Côté, 2005; Gross, 2002).

Team Level

Internal forces of team self-leadership that have received research attention include team composition and task characteristics. These characteristics represent the "raw material" of teams in that they capture who is on the team and what the team does. Emergent states that come about through team interaction represent a second type of internal force and are commonly captured through assessments of team cognition and cohesion. Finally, a third type of internal force is team processes, such as conflict, that capture interactions between members

Team composition. Team composition refers to how the traits of individual team members are distributed within the team (Neuman & Wright, 1999). Teams are most effective when they include individuals with desirable traits (Barrick, Stewart, Neubert, & Mount, 1998; Barry & Stewart, 1997; Humphrey, Hollenbeck, Meyer, & Ilgen, 2007). Teams benefit most from individual traits when they develop specific processes for allocating tasks that match individual traits and skills with tasks and duties rather than through some other procedure such as allowing members to volunteer for roles (Behfar, Peterson, Mannix, & Trochim, 2008). Indeed, the optimal configuration of traits allows a team to effectively allocate tasks, coordinate roles, and work cooperatively. Although this research has not always indicated the degree of self-leadership inherent in the teams being examined, it does provide guidance for assessing the effects of different team member characteristics on teams high in self-leadership.

One composition variable seemingly crucial for effective self-leadership at the team level is general mental ability (GMA). GMA is beneficial for team self-leadership because it reflects the ability to deal with complexities and solve difficult problems independently. Although their data include studies of teams with varying degrees of self-leadership, three meta-analyses have supported the relationship between high mean levels of GMA and team performance (Bell, 2007; Devine & Phillips, 2001; Stewart, 2006). Moreover, Barrick et al. (1998) found that high mean levels of GMA corresponded positively with self-leading teams' capability to continue working cooperatively (i.e., team viability). Devine and Phillips (2001) and Bell (2007) also both meta-analytically showed that teams can sometimes be well off if they include at least one highly intelligent team member.

Another composition variable related to team self-leadership is personality. Bell (2007) meta-analytically found higher mean levels of team conscientiousness to predict team

performance. Humphrey et al. (2007) further proposed that teams should minimize the variance in conscientiousness, as this should lead to greater member goal congruence and less conflict (Antonioni & Park, 2001). Research has further shown that it is helpful to select at high levels of agreeableness and minimize the variance on this trait as one "bad apple" can singlehandedly undermine the success of an entire team (Bell, 2007). Barrick et al. (1998) also found that a single disagreeable team member can destroy interpersonal relationships and team viability. Thus, because teams high in self-leadership must internally organize tasks, they seem to profit from selecting as many individuals as possible who are high in conscientiousness and agreeableness and minimizing the amount of variance on these traits. A different conclusion arises, however, with regards to extraversion. Barry and Stewart (1997) showed that having too few extraverts on a team is problematic because some roles, particularly leadership roles, require a high degree of assertiveness and energy, which are ideally suited to extraverts. Yet, a team with too many extraverts and no formal leader breeds a group where power struggles and conflict are likely to occur (Humphrey et al., 2007). Thus, teams high in self-leadership may be more effective when there is variance in extraversion because it allows both leader and follower roles to be filled (Mohammed & Angell, 2003; Neuman, Wagner, & Christiansen, 1999).

Task characteristics. The effect of many team inputs and processes is dependent on team tasks. The moderating effect of task characteristics seems to hold for self-leadership. Stewart and Barrick (2000) found that team self-leadership was associated with higher performance for teams engaged primarily in conceptual tasks as opposed to behavioral tasks. Liden, Wayne, and Bradway (1997) further demonstrated that increasing group control over decisions results in high performance only for teams characterized by high task interdependence. Langfred (2005) replicated this finding in that team-level autonomy was found to positively affect team performance only under conditions of high task interdependence. Team self-leadership is thus most effective when teams must coordinate their task actions in order to perform complex and creative tasks.

Team cognition. Internal properties that emerge from group interactions also affect team self-leadership. One emergent characteristic affecting team self-leadership is collective cognition, that is, how information in the group is collectively processed (Cannon-Bowers, Salas, & Converse, 1993; Klimoski & Mohammed, 1994). For example, research on shared mental models, defined as an understanding of relevant knowledge shared by team members, has shown that teams perform better when there is convergence in members' mental models regarding the team's taskwork and teamwork (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Although meta-analytic evidence regarding the efficacy of shared mental models for teams varying in self-leadership has been supportive (DeChurch & Mesmer-Magnus, 2010), Druskat and Pescosolido (2002) argued that shared mental models are particularly important for teams high in self-leadership because efforts are coordinated within the team rather than by a formal hierarchical leader (Cohen, Ledford, & Spreitzer, 1996). Moreover, shared mental models facilitate adaptation to difficult and changing task conditions often faced by teams high in self-leadership (Cannon-Bowers et al., 1993; Thoms, Pinto, Parente, & Druskat, 2002). However, Druskat and Pescosolido also noted that mental

models in self-leading teams flourish only if an organization's culture is such that it supports team self-control.

Another approach to collective cognition is transactive memory systems, which capture the distribution of team members' unique knowledge as well as a collective awareness of where unique knowledge in the team is stored (DeChurch & Mesmer-Magnus, 2010; Ellis, 2006; Kozlowski & Ilgen, 2006). Similar to shared mental models, transactive memory systems are particularly important for self-leadership at the team level because knowledge and information must be coordinated within the team rather than by a formal hierarchical leader. A collective awareness of who knows what allows a team to have open communication, coordinate tasks, and adapt to uncertainty (Kozlowski & Ilgen, 2006; Lewis, 2003). The benefit of transactive memory systems for teams high in self-leadership was illustrated by Austin (2003), who showed that transactive memory systems were related to higher evaluations of the group's performance by external managers as well as the team members themselves.

Cohesion. Researchers have also identified cohesion, defined as the degree to which team members are attracted to the team and the level of task commitment in the team (Beal, Cohen, Burke, & McLendon, 2003), as another emergent team characteristic that facilitates team self-leadership (Barker, 1993; Goodman, Ravlin, & Schminke, 1987). One way that cohesion influences self-leadership is that it heightens the effectiveness of social rewards and punishments provisioned by team members. The effective administration of social rewards and punishments allows a team to be self-reinforcing. For example, Barker (1993) observed that teams high in self-leadership exercise greater control over members than traditional teams because team members have control over the social standing of their fellow team members. Those who comply with performance standards are made to "feel a part of the team" while deviant members are punished "with guilt and peer pressure to conform" (p. 425). Group-based social rewards allow the collective to self-reinforce norms (Blau, 1964). In addition, cohesion can foster collective motivation that translates into high team performance (Beal et al., 2003; Spreitzer, Cohen, & Ledford, 1999). Finally, members of cohesive groups are more prone to internalizing group standards and having high levels of social identification with the group (Barley & Kunda, 1992; Klein & Mulvey, 1995; Mulvey & Klein, 1998). Cohesion thus impacts team self-leadership through processes of coordination, control, self-reinforcement, and social identification.

Conflict. A process variable related to team self-leadership is conflict. It is important that conflict in teams be prevented or resolved effectively because meta-analytic evidence suggests that across teams with varying degrees of self-leadership, task and relationship conflict are very often negatively related to team member satisfaction and team performance (De Dreu & Weingart, 2003). Effective conflict management is particularly important for teams with a high degree of internal control because conflict is resolved by team members themselves rather than by a traditional supervisor (Cohen & Ledford, 1994). For example, Langfred (2007) found that team conflict was associated with lower intrateam trust and that conflict tended to undermine team member autonomy and task interdependency. Still, one benefit of conflict may be that it allows teams with a high degree of decision latitude to make decisions to which they are committed (Tjosvold, 1987). Indeed, Jehn and Mannix (2001) found that

high-performing self-leading teams experienced moderate levels of task conflict at the mid-point of group interaction, when the need for achieving team consensus is vitally important, but low levels of task conflict in the latter stages of the group's development. In this sense, task conflict that is resolved effectively may enhance self-leadership because it encourages self-reinforcement and self–goal setting on the part of teams. A qualitative study of 57 teams high in self-leadership by Behfar et al. (2008) revealed that highly successful teams resolved conflict by using nonemotional, fact-driven discussions that helped team members understand why the group reached consensus on certain decisions. Moreover, successful teams were able to forecast potential conflicts early and take steps to resolve concerns quickly. Unsuccessful teams, on the other hand, resolved conflict either by yielding to a dominant member or by stopping discussion because "they were tired of arguing" (p. 183). Similarly, Alper, Tjosvold, and Law (1998, 2000) found that teams with highly cooperative goals discussed their opposing views more constructively and openly than teams with competitive goals, which subsequently led to higher quality decisions and higher team performance. Thus, while unresolved conflict, or conflict that is ineffectively resolved, may be detrimental for team self-leadership, evidence suggests that conflict that is handled effectively may increase self-leadership and thereby benefit team functioning.

Summary and Research Guidelines

A summary of internal forces identified in our review is presented in Table 2. Individual-level research has focused on the cognitive and, more recently, the emotional processes that take place within individuals. Self-leadership is facilitated by positive thought patterns and emotion regulation. In contrast, team-level research has focused on the "raw materials" that are internal to the team, as well as the interactional processes that occur among team members. Self-leadership at the team level is facilitated by having a team composed of people with beneficial characteristics and by internal interactions that effectively coordinate efforts.

The focus on member composition at the team level highlights an area that has received very little research attention at the individual level. The individual perspective has focused substantial attention on the creation of training interventions, with very little attention being paid to the "raw materials," or natural tendencies, of individuals. Little is known about the characteristics or traits of people who are self-leaders. One exception is a study by Stewart, Carson, and Cardy (1996) that found employees high on the trait of conscientiousness to benefit less from a self-leadership training intervention because they were already engaging in many self-leadership activities. Conscientious employees who emphasize goal achievement would often be described as exercising self-leadership. Nevertheless, little research has been done at the individual level to identify individual traits and characteristics that facilitate self-leadership.

Another area where team-level research can guide future efforts at the individual level is increased emphasis on task characteristics. Team self-leadership has been shown to be more beneficial when tasks are creative. Although empirical studies have not specifically examined task differences at the individual level, it seems that the moderating effect of task type

Table 2
Internal Forces of Individual- and Team-Level Self-Leadership

Factor	Examples of studies	Summary of research
Individual level		
Intrinsic (natural) rewards	Gagné and Deci (2005) Seibert, Crant, and Kraimer (1999) Stewart, Carson, and Cardy (1996)	Individuals who embed tasks with intrinsic (natural) rewards are more self-led and are more effective at completing menial tasks. Training can help individuals learn how to create natural rewards in their work.
Thought self-leadership	Seligman and Schulman (1986) Manz, Adsit, Campbell, and Mathison-Hance (1988) Neck and Manz (1996)	Thought self-leadership is a means for individuals to manage their own thinking tendencies and patterns. Individuals who practice constructive self-talk feel more control over their work, have higher self-efficacy, and achieve higher performance.
Emotion regulation	Côté (2005) Gross (1998)	Emotion regulation is a form of self-leadership that enhances personal effectiveness and well-being. Like self-leadership, strategies can be applied to exercise self-influence over emotion.
Personality	Stewart et al. (1996)	Some individuals have a natural proclivity for self-leadership. Specifically, individuals high in conscientiousness engage in self-leadership behavior more than individuals low in conscientiousness.
Team level		
Team composition	Bell (2007) Stewart (2006)	Self-leadership is enhanced when the right skills set, based on team members' ability and personality, are present. Specifically:
Cognitive ability	Barrick, Stewart, Neubert, and Mount (1998)	A high level of cognitive ability allows a team to adapt to changing circumstances and effectively solve complex problems.
Personality	Barry and Stewart (1997) Humphrey, Hollenbeck, Meyer, and Ilgen (2007)	High levels of conscientiousness and agreeableness (while minimizing the variance on these traits) increase goal congruence and decrease conflict. A wide variance in extraversion promotes better role coordination.
Task characteristics	Langfred (2005) Stewart and Barrick (2000) Uhl-Bien and Graen (1998)	Self-leadership is more effective for teams that are highly interdependent and tasks that are conceptual (vs. behavioral). It is also more effective for teams that are functional (vs. cross-functional).
Shared mental models	Mathieu, Heffner, Goodwin, Salas, and Cannon-Bowers (2000)	Shared understanding of the team's task, equipment, interactions, and characteristics improves planning and coordination of team's effort as well as communication between team members.
Cohesion	Barker (1993) Spreitzer, Cohen, and Ledford (1999) Millikin, Hom and Manz (in press)	Cohesion makes teams more self-reinforcing by enhancing the effectiveness of social rewards and punishments provisioned by team members. It also enhances the collective motivation of the group. Finally, it promotes higher productivity in networks of teams whose members widely practice self-leadership.
Conflict	Behfar, Peterson, Mannix, and Trochim (2008) Langfred (2007) Paulson, Wajdi and Manz (2009)	Team conflict can undermine self-leadership if left unresolved or if resolved ineffectively. However, effectively resolved conflict (e.g., collaborative conflict management) allows teams to make decisions to which they are committed and encourages self-reinforcement and self–goal setting.

should generalize. Self-regulation that entails revision of control standards is theoretically most beneficial in settings that require individuals to make novel contributions. Indeed, work tasks that offer more natural rewards—at both levels—seem most conducive to self-leadership.

At the team level, research has established the importance of a shared mental model. A shared mental model should be particularly important for teams composed of self-leading individuals. Having a common purpose and clear understanding of who has what responsibilities is likely necessary for coordinating team member efforts when there is no formal leader. Self-leadership strategies such as self-talk, mental imagery, beliefs and assumptions, and thought patterns can be applied to conversations among team members to help frame events positively and develop a sense of belonging and commitment to the team (Neck, Stewart, & Manz, 1996). Such feelings of inclusion are critical for motivating self-leading individuals to integrate their own goals with the goals and objectives of the larger collective, making a shared mental model a likely prerequisite for a truly self-leading team.

Interactions between members and emergent states such as cohesion have been found to be particularly important inputs to self-leadership at the team level. It is possible, however, that seemingly positive group-level interactions and states may be harmful in some instances. For example, Janis's (1983) notion of *groupthink* is based on the premise that teams that seemingly have positive interactions and are too cohesive may engage in dysfunctional decision processes. Although this is certainly possible, Neck and Manz (1994; Manz & Neck, 1995) propose the concept of *teamthink* as an alternative outcome of positive group processes. Teamthink differs from groupthink in that it encourages the open expression of ideas, recognition of members' uniqueness, discussion of collective doubts, and discussion of ethical and moral consequences. These competing perspectives illustrate how more research is needed to determine if too much positive interpersonal interaction and cohesion can become a liability.

Advances in the area of emotion regulation have also begun to broaden the psychological perspective beyond cognitions to include affective reactions. This work provides an exciting area of potential advancement at the individual level. Affective concepts have also been advanced at the team level. In fact, emotional processes may be particularly important in teams, as affect can be contagious in that team members tend to share emotional states over time (Hatfield, Cacioppo, & Rapson, 1994). This makes it so that teams develop an affective culture that reflects collective emotional response (Barsade, Ward, Turner, & Sonnenfeld, 2000). This effect is likely magnified in teams without a strong external leader to provide not only relational support but also to frame the team's context in a positive light (Piccolo & Colquitt, 2006). Linking affective culture to self-leadership thus represents an avenue where research being conducted at the individual level can be extended to the team level.

External Forces

Individual Level

External forces also influence individual self-leadership practice. Salient forces include self-leadership training, empowering leadership, shared leadership, and cultural influences.

Training. Training has been shown to increase the use of self-leadership strategies and ultimately performance (Frayne & Geringer, 2000; Frayne & Latham, 1987; Godat & Brigham, 1999; Latham & Frayne, 1989; Neck & Manz, 1996). However, the positive effect of training is not universal. As explained earlier, Stewart et al. (1996) found individuals without a natural proclivity toward internal control, specifically, people low on the trait of conscientiousness, to benefit more from self-leadership training than peers who were already engaging in a higher degree of internal control. Eden and Aviram (1993) found a similar effect for behavioral training on self-efficacy in that individuals with initially low levels of generalized self-efficacy benefitted most from training. Existing evidence thus supports the efficacy of training for increasing self-leadership, but it also suggests that this external force interacts with internal personality.

Leadership. As noted earlier, it seems somewhat ironic to discuss the role of external leadership given that the concept of self-leadership was originally conceptualized as a substitute for formal leadership (Manz & Sims, 1980). However, leadership is often a necessary component for facilitating self-leadership to the degree that it empowers employees and allows them to exercise influence over work processes. Thus, more recent approaches to leadership emphasize the need for leaders to assist employees in leading themselves (Manz & Sims, 1987). For example, Deci, Connell, and Ryan (1989) argued that leadership that supports self-determination (i.e., a sense of choice in initiating and regulating one's own actions) results in more positive attitudes on the part of employees. Transformational leadership has also been proposed as a leadership style aimed at developing employees through increased participation and empowerment (Kark, Shamir, & Chen, 2003).

A more specific area that relates to the influence of leadership on self-leadership is the notion of *empowering leadership*, which involves passing on influence to followers as part of the leadership process (Ford & Fottler, 1995). Empowering leadership has the potential to create what Cox, Pearce, and Sims (2003) describe as "a more robust, flexible, and dynamic leadership infrastructure" (p. 172). Work in this area, which is grounded in academic theory related to leading empowered workers, has significant implications for the development, influence, and practice of individual employee self-leadership in work contexts both with and without teams (Manz & Sims, 1986). This work has been explored empirically in a variety of studies (Cohen et al., 1997; Manz & Sims, 1987) and relates to a practical approach to leadership that empowers followers to practice self-leadership (Manz & Sims, 1990, 1991, 2001). According to Manz and Sims (1987), with this leadership approach followers not only participate in the management process, but to a significant degree become their own leaders. Building on the work of Manz and Sims (1987), Pearce et al. (2003) analyzed three samples and found empowering leadership to be a distinct type of leadership as part of a four-factor typology based on four leadership archetypes that were originally proposed by Manz and Sims (1991, 2001). Furthermore, Pearce and Sims (2002) and Pearce, Yoo, and Alavi (2004) found a positive relationship between empowering leadership and performance-related outcomes, including problem-solving quality and overall team effectiveness. Other measures of empowering leadership have also been advocated, with most of them showing strong effects on individual and team behavior (e.g., Arnold, Arad, Rhoades, & Drasgow, 2000; Srivastava, Bartol, & Locke, 2006)

Also, closely related to empowering leadership is the notion of *shared leadership*, which involves an interactive dynamic influence process among individual group members who lead one another to help reach the goals of the group or organization (Pearce, 2004; Pearce & Conger, 2003; Pearce & Manz, 2005). Shared leadership involves individual employees leading themselves to step forward to offer leadership for others or leading themselves to step back and allow others to lead, depending on the requirements of the immediate work situation. Thus, shared leadership, perhaps more than any other theoretical perspective, connects individual self-leadership with issues related to work teams (Pearce, Manz, & Sims, 2009). Various individual team members must self-lead themselves to exercise leadership in different ways at different times as unfolding circumstances require in the course of performing the work of the team. A variety of studies have supported sharing leadership among self-led individual team members as having a powerful effect on the collective performance of individual employees within team contexts (Avolio, Jung, Murry, & Sivasubramaniam, 1996; Hooker & Csikszentmihalyi, 2003; Pearce et al., 2004; Pearce & Sims, 2002; Shamir & Lapidot, 2003), and recent theory suggests that it may also help prevent executive corruption (Pearce et al., 2008).

National culture. Another external influence on individual self-leadership practice is national culture. Adler (1997) has pointed out that there are no universal theories of leadership that apply across national cultures despite the increase of research over the past few years on culture and leadership (Dickson, Den Hartog, & Mitchelson, 2003). More specific to this review, self-leadership has received almost no attention in relation to national cultures. One exception is a preliminary attempt to develop a self-leadership scale for the Chinese context (Neubert & Wu, 2006). In addition, Alves, Lovelace, Manz, Matsypura, Toyasaki, and Ke (2006) examined components of self-leadership using Hofstede's (1980, 2001) culture framework. They concluded that high power difference in a culture elevates the importance of the symbolic value of tasks and corresponding covert processes of self-leadership, whereas high uncertainty avoidance magnifies the importance of nonrational and intuitive thought processes.

Team Level

External leadership and performance evaluation/reward systems have been the most frequently researched external factors at the team level. Other influences of team self-leadership, such as organizational structure and culture, have been examined to a lesser degree.

External leadership. Scholars generally agree that the success of self-leading teams depends on the actions of an external team leader, that is, the leader to whom the team reports (Morgeson, DeRue, & Karam, 2010). The requirements for external leaders of teams high in self-leadership differ significantly from those of traditional supervisors in that the team holds the ultimate authority for making decisions. Thus, the primary role of an external supervisor is to (a) support the team's success by facilitating the team's self-leadership and (b) help the team to interact effectively with the environment (Manz & Sims, 1987). We might also note

that leaders usually emerge in groups when no formal leadership role is prescribed (Foti & Hauenstein, 2007; Taggar, Hackett, & Saha, 1999), suggesting that an individual filling a leadership role does indeed influence team self-leadership, even when that person lacks formal positional power.

According to Manz and Sims (1987), the first role of an external supervisor is "leading workers to lead themselves." In their investigation of self-leading teams in a small-parts factory, Manz and Sims found that the most effective leaders encouraged their teams to have high expectations for performance and motivated the teams to be self-reinforcing of high group performance through consistent self-monitoring and self-evaluation of performance levels. More specifically, effective external leaders provide support for internal control by encouraging their teams to be self-observing, self-evaluating, and self-reinforcing. Similarly, Wageman (2001) found that teams had higher levels of self-leadership when leaders provide rewards for self-leadership behaviors, signal to team members that they are primarily responsible for managing the team's work, and provide problem-solving consultation. Conversely, identifying team problems and intervening to correct these problems were negatively related to team self-leadership. However, Morgeson (2005) demonstrated that there may in fact be some situations where active, hands-on coaching by external leaders is warranted. He found that in the face of disruptive events in the team's environment, teams benefit from active coaching interventions from the leader. Under other conditions, however, active coaching interventions can hinder long-term self-leadership by creating dependence on the leader rather than requiring teams themselves to own and resolve problems through internal processes (e.g., conflict management).

In terms of external leaders helping self-leading teams to effectively interact with the environment, Druskat and Wheeler (2003) used qualitative data taken from 300 self-directed production teams and their external leaders to develop a boundary-spanning model where effective external leaders serve as a linking pin with other groups both inside and outside the organization. Effective external leaders use their positions to the advantage of their teams by building social and political capital with outside parties and scouting necessary information from them. In turn, these leaders give their teams the resources and information necessary for them to self-lead. Similarly, Mathieu, Gilson, and Ruddy (2006) found that members who perceived their external leader as procuring needed resources reported higher levels of team self-leadership.

Reward systems. Research has also shown that team-level self-leadership can be influenced by the performance evaluation/reward systems of an organization. Like external leadership, it may also seem ironic to discuss external reward strategies in the context of self-leadership given the heavy emphasis on intrinsic rewards as drivers of self-leadership behaviors (Deci & Ryan, 1985; Manz, 1986). Nevertheless, the high involvement management approach advocated by Lawler and colleagues (Lawler, 1986; Lawler, Mohrman, & Lefford, 1992) specifically identifies pay-for-performance (PFP) rewards as a key human resource practice through which employees can gain a greater sense of control over their work. This occurs because results-based pay structures motivate workers to be self-led and proactive in improving work processes, boosting productivity, and solving problems. Group-based PFP plans— where individual rewards are directly tied to measures of group productivity—are often

suggested to be the most effective reward structure for increasing team-level self-leadership (Pfeffer, 1994). Such reward structures are argued to enhance the collective motivation of team members (Kirkman & Rosen, 1999; Tjosvold, 1986), elicit greater levels of cooperation and teamwork (DeMatteo, Eby, & Sundstrom, 1998), and achieve better internal alignment with business-level and human resource strategies involving team self-leadership (Gerhart & Rynes, 2003).

However, there is mixed evidence on the merits of group-based PFP plans for self-leadership at the team level. Cooke (1994) showed that while the implementation of group-based incentive plans and self-leading teams independently increased group productivity, productivity did not incrementally increase when group-based incentives and self-leading teams were jointly implemented. Similarly, Shaw, Gupta, and Delery (2001) found only one of seven productivity indicators in the concrete pipe industry to show improvement when team-based incentives and TQM practices were used together. At the same time, however, they found that using individual-based incentives and TQM practices together negatively impacted five of the seven productivity indexes measured in their study. Thus, although group-based incentives may not universally enhance team self-leadership, group-based reward structures are likely preferable over individual-based incentives for building and maintaining self-leadership at the team level. Yet, a quasi-experimental study by Wageman (1995) found that teams with individual-based PFP reward systems had stronger group performance norms and higher internal work motivation than teams with group-based pay-for-performance systems. Although this seems contradictory to the notion that group-based incentives are a better fit for self-leading teams, Wageman's conclusion can be explained by the literature on social loafing, which suggests that group-based rewards can result in free-riding (i.e., shirking or social loafing), which in turn harms the coordination, cooperation, and performance of teams (Karau & Williams, 1993; Shepperd, 1993). In sum, findings on the merits of group-based PFP plans for team self-leadership are mixed.

In addition to PFP reward systems, peer evaluation systems have also been examined in relation to team self-leadership. Druskat and Wolff (1999) found that face-to-face developmental peer appraisals in self-leading teams were associated with higher levels of open communication and cohesion and lower levels of social loafing (see also Erez, Lepine, & Elms, 2002). Recent work by Stewart, Courtright, and Barrick (2010) conducted on manufacturing teams high in self-leadership also showed that peer evaluations explicitly used for allocating organizational rewards (pay raises, bonuses) contribute to individual-level performance in teams and team-level performance above and beyond the effects of developmental peer appraisals. Although there have been arguments that peer evaluations can be detrimental to the functioning of autonomous teams (e.g., Saavedra & Kwun, 1993), evidence largely suggests that peer evaluations, whether used for developmental or administrative purposes, enhance team self-leadership.

Organizational structure/culture. In terms of organizational structure, Tata and Prasad (2004) found the effects of team self-leadership on team performance to be stronger under low levels of centralization and formalization. Climate also affects team self-leadership. For instance, a study by Seibert, Silver, and Randolph (2004) showed that an empowerment climate, characterized by information sharing, autonomy, and team accountability, affected the

performance of self-leading project teams. And in terms of culture, studies by Spreitzer et al. (1999) and Cohen et al. (1996) demonstrate that high involvement organizational-level contexts in which workers are given information about various work-related issues (i.e., processes, quality, customers, performance, competitors, organizational changes) and are granted power to make work-related decisions are more conducive to team-level self-leadership and team effectiveness.

National culture. At an even broader level, Kirkman and Shapiro (1997, 2001) have examined how cultural values, such as collectivism/individualism, contribute to employees' resistance to the concept of self-leading teams. They found that individuals in collectivist cultures resisted the implementation of self-leading teams less than individuals in individualistic cultures and therefore that self-leading teams in collectivist cultures were more productive.

Summary and Research Guidelines

A summary of the concepts we have reviewed as external forces is presented in Table 3. Self-leadership clearly interacts with external leadership. Self-leadership is facilitated by external leaders who not only allow individuals and teams the freedom to lead themselves but also provide resources and support. Self-leadership should thus not be seen as a complete substitute for external leadership but rather an influence process that can be complementary to and facilitated by external leadership. Effective self-leadership requires contributions from external leaders, albeit contributions that are very different than those traditionally associated with a command and control perspective of leadership. In essence, the external leader role moves away from director and boss toward acting as a coach and a catalyzing support.

However, studies like Morgeson (2005) show there may be conditions in which encouraging self-leadership may be more or less effective for external leaders to do. More research should be done to identify conditions where it is appropriate for leaders of self-leading teams to intervene in the affairs of their teams. Moreover, little research has been done on how informal internal leadership sources can either provide the same type of encouragement as external leaders or how formal external leadership interacts with informal internal leadership in affecting self-leadership and team outcomes (Morgeson et al., 2010).

Although studies at the individual level have shown the efficacy of self-leadership training, researchers have not examined self-leadership training at the team level. This seems like a critical omission, and substantial insight may be gained by exploring how training facilitates team self-leadership. For example, technical skill development is required before self-leadership can take place (Manz & Stewart, 1997). Moreover, under conditions of high team self-leadership, team members must work together to fill roles and execute tasks traditionally carried out by a formal leader and for which they may not have the requisite skills. Potential avenues of training thus include teaching team members production skills that allow them to maintain equipment, obtain materials, and prepare budgets. Team training may also be helpful for improving interactions among team members, thereby improving other internal forces such as developing shared mental models, building cohesion, and creating effective conflict management processes. Finally, team training might also focus directly

Table 3
External Forces of Individual- and Team-Level Self-Leadership

Factor	Examples of studies	Summary of research
Individual level		
Training	Frayne and Geringer (2000) Frayne and Latham (1987) Latham and Frayne (1989) Stewart, Carson, and Cardy (1996)	Training generally results in increased use of self-leadership strategies and, subsequently, higher personal effectiveness. However, it has greater effects on individuals without a natural proclivity toward self-leadership.
Leadership	Ahearne, Mathieu, and Rapp (2005) Manz and Sims (1987) Pearce and Sims (2002)	Empowering and shared leadership approaches allow individuals to exercise self-leadership in work contexts both with and without teams. The result is individuals and teams achieving higher performance.
National culture	Alves, Lovelace, Manz, Matsypura, Toyasaki, and Ke (2006) Neubert and Wu (2006)	While self-leadership behavior is a generally universal concept, it is understood and applied differently across cultures (e.g., individualism/collectivism, power distance).
Team level		
External team leadership	Druskat and Wheeler (2003) Mathieu, Gilson, and Ruddy (2006) Morgeson (2005) Morgeson, DeRue, and Karam (2010) Wageman (2001)	External team leaders enhance team self-leadership by providing self-leadership coaching and procuring needed resources from the environment. Active interventions by a team leader can sometimes enhance self-leadership and sometimes harm it.
Reward systems	Cooke (1994) Shaw, Gupta, and Delery (2001) Druskat and Wolff (1999) Erez, Lepine, and Elms (2002) Stewart, Courtright, and Barrick (2010)	Mixed findings on the effectiveness of group-based pay-for-performance systems for facilitating team self-leadership and effectiveness. Peer evaluation systems, whether used for developmental or administrative purposes, generally encourage self-leadership and team effectiveness.
Organizational structure/culture	Cohen, Ledford, and Spreitzer (1996) Tata and Prasad (2004)	Team self-leadership more effective in organizations with a high employee involvement culture and low levels of centralization and formalization.
National culture	Kirkman and Shapiro (2001)	Workers in collectivist cultures resist the use of self-leading teams less than workers in individualistic cultures. Consequently, self-led teams are more effective in collectivist cultures.

on team self-leadership skills that equip teams to provide their own self-direction and self-motivation in a coordinated manner.

Applying team research to the individual level suggests a need to explore how self-leading individuals respond to external rewards. Self-reward is a critical behavior associated with self-leadership. However, self-leadership theory generally accepts the notion that internal regulation can be externally supported. One perspective suggests that specifically rewarding individuals for self-leadership should provide not only external reinforcement but also

specific cues that emphasize the importance of self-leadership (Eisenberger, Rhoades, & Cameron, 1999). Yet, a contrasting perspective suggests that external reward may decrease the natural rewards and intrinsic motivation that are critical for self-leadership (Deci, 1975; Deci & Ryan, 1985; Kohn, 1993). Given that research at the team level has not yet provided a clear answer to questions about rewards, exploring incentives holds promise at both levels.

The final issue identified at both individual and team levels is national culture. Much of the existing research has been done in the United States, which represents a relatively individualistic culture. Additional work is needed to determine the extent to which findings generalize to more collectivistic cultures. Differences in power distance and uncertainty avoidance (Hofstede, 1980, 2001) may also come into play. It also seems possible that the effects of national culture differ for individual and team self-leadership. People from individualistic cultures may be more comfortable leading themselves rather than being part of a collective team, whereas people from collectivistic and low power distance cultures may be more comfortable working with others to jointly lead rather than being directed by an external supervisor. This previews an area of cross-level research, which is explored next.

Cross-Level Issues

Given that self-leadership research has been developed both at the individual and team levels, a number of questions arise concerning cross-level effects. Most of these effects have received scant research attention and therefore present avenues for potential work. Although identifying all potential cross-level effects is impossible, we offer illustrative examples of areas where a cross-level perspective provides insight. We frame this discussion in terms of questions.

How does self-leadership at the team level affect self-leadership at the individual level? Langfred (2000) found opposing relationships such that team cohesiveness was enhanced by greater self-leadership at the team level but impaired by self-leadership at the individual level. The opposing effects carried through to influence team performance. Self-leading individuals by nature "march to their own beat," thereby making it difficult for their efforts to be coordinated. In contrast, autonomy at the team level affords the group an opportunity to work cooperatively, which creates a sense of collective ownership. Yet, the competing effects of individual and team self-leadership are moderated by task interdependence (Langfred, 2005) and support from coworkers (van Mierlo, Rutte, Vermunt, Kompier, & Doorewaard, 2006). Teams with a high degree of internal control have also been found to react negatively to conflict by reducing individual autonomy (Langfred, 2007). At the same time, Paulson, Wajdi, and Manz (2009), based on three case studies of self-leading teams in divergent contexts, concluded it was "collaborative conflict" that paradoxically enabled effective self-leading teams to succeed. Thus, although research is still emerging in this area, it is apparent that a great deal of internal control for teams may impede internal control for individuals in some circumstances. This suggests a number of issues that can be addressed in future studies. First, is self-leadership at one level more important for employee satisfaction and productivity than is self-leadership at the other level? Second, does the primary focus of the

self-leadership (cognition, behavior, environment, emotion) determine differences across levels? Third, do individuals with certain personality traits continue to display high personal self-leadership even if team self-leadership is high? These and other areas of inquiry offer avenues for future cross-level research.

How does self-leadership at higher levels affect self-leadership at the individual and team levels? From a multilevel perspective it is important to recognize that teams and individuals are embedded in larger organizations. Millikin, Hom, and Manz (in press) found self-leadership for individuals to affect not only team-level performance but also multiteam systems (i.e., interdependent groupings of teams). The link between individual-level self-leadership and productivity of multiteam systems was found to be moderated by team cohesiveness. Although very little research has explored self-leadership effects at levels higher than teams, this is one illustration of the benefits of cross-level research.

A particular area where higher level effects have been posited theoretically but not adequately tested empirically concerns supervision and leadership. Manz and Sims (2001) presented a model suggesting that self-leadership can be facilitated through the actions of external supervisors. Some meta-analytic evidence suggests that this form of leadership is indeed helpful for improving the performance of teams (Stewart, 2006). However, research has not generally explored cross-level effects of leadership. Does empowering leadership at the organization level (CEO) trickle down to influence both individual- and team-level self-leadership? Which is more critical for encouraging individual-level self-leadership, the leadership of an external (organizational) leader or an internal (team) supervisor/leader? Although some work has been done at each level of analysis, additional cross-level work is needed to illustrate how leadership at one level affects self-leadership at other levels.

Another illustration of higher level issues affecting self-leadership concerns reward structures. Based on cognitive evaluation theory (Deci & Ryan, 1985), Manz (1986) argued that self-leadership behavior at the individual level will be sustained more by intrinsic rewards such as feelings of competence, self-control, and purpose than by external rewards such as praise and recognition that often come from supervisors and organizational leaders. However, Neck and Manz (2010) acknowledge that external reward contingencies can be effective for supporting self-leadership strategies when a given task is lacking intrinsically motivating characteristics. Thus, to some degree, individual self-leadership is not only maintained by intrinsic individual-level rewards, but also by a certain level of extrinsic higher level rewards.

Limited research has examined external versus internal reward strategies in self-leading teams. Recent work by Stewart et al. (2010) suggests that when organizational rewards (pay raises, bonuses, etc.) are controlled and determined internally by one's teammates as opposed to an external supervisor of the team, the performance of both teams and individuals comprising those teams is stronger. This is an example of how a feature at the organizational level can influence self-leadership at both the team and individual levels. Of course, additional work related to organizational features such as structure, culture, and strategy is needed to clearly identify methods for increasing self-leadership simultaneously at both levels without an increase at one level resulting in a decrease at the other.

Do critical findings at one level of analysis generalize to the other level? One of the strongest findings at the individual level is that increased self-leadership results in greater self-efficacy. The generalization of this concept to the team level of analysis has not been adequately examined. Do teams with greater team-level internal control develop more positive perceptions of collective efficacy? Additional research is needed to determine the extent to which antecedents and consequences of self-leadership are isomorphic across individuals and teams.

A related but somewhat different aspect of cross-level relationships is the extent to which findings concerning personality traits linked to self-leadership aggregate up to form team-level constructs. Conscientious individuals have been shown to engage in greater individual self-leadership (Stewart et al., 1996), but what represents the analog of conscientiousness at the team level? Is conscientiousness captured in the configuration of team member roles (Humphrey, Morgeson, & Mannor, 2009; Stewart, Fulmer, & Barrick, 2005), with teams composed of members who fill task roles being more motivated and goal driven? Perhaps it is captured in the concept of transactive memory systems (Lewis, 2003), with teams being more effectively organized when they develop a structure for knowing who possesses what type of expertise. Research designed to answer questions such as these can allow contributions at one level of analysis to guide efforts at the other level of analysis.

Conclusion

Research on self-leadership has emerged over a 30-year period to the point where we were able to conduct a meaningful review of the literature. In particular, the cross-level nature of self-leadership as a construct provides a multifaceted lens through which insights from micro and macro perspectives can be combined. This integrative review of the literature allows findings to be highlighted that may not be apparent when focusing only on a single level. Perhaps more importantly, it provides guidance for future research needed to achieve a more complete understanding of self-leadership for individuals, teams, and the organizations they make up.

Our review suggests that self-leadership at the individual level is consistently related to improvement in both work attitudes and performance. Self-leadership does not appear to be so universally beneficial at the team level. Researchers should thus continue to focus on the contextual factors that influence relationships with team-level self-leadership. Another conclusion that emerges from our review of the literature is the critical interplay between self-leadership and external leadership. Empowering and shared leadership have been shown to be critical forces that influence internal self-leadership. Thus, self-leadership should not be considered as a complete substitute for external leadership. The nature of what the external leader does may change, but external support and help continue to be necessary. The final section focusing on cross-level issues offered a number of critical questions that need to be addressed by future research. We suggest that examining cross-level implications of self-leadership provides perhaps the most interesting and useful avenues for future research efforts. In addition, we presented a number of research questions in our review of outcomes,

internal forces, and external forces of self-leadership that should be addressed in future research endeavors. We hope that research designed to address these questions will advance our understanding of self-leadership.

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