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CAREER SELF-MANAGEMENT: A QUASI-EXPERIMENTAL ASSESSMENT OF THE EFFECTS OF A TRAINING INTERVENTION

ELLEN ERNST KOSSEK, KAREN ROBERTS
School of Labor and Industrial Relations
Michigan State University

SANDRA FISHER
Michigan State University

BEVERLY DEMARR
School of Labor and Industrial Relations
Michigan State University

A growing trend is to encourage employees to become actively involved in the management of their own careers. Career self-management, the degree to which one regularly gathers information and plans for career problem solving and decision making, includes two main behaviors: developmental feedback seeking and job mobility preparedness. Although career self-management training is a commonly used employer intervention to re-socialize individuals to increase their own career management activity, it is rarely rigorously evaluated. Relying on an expectancy theory framework, the goal of this study was to evaluate the general effects of career self-management training using a quasi-experimental design. Based on data from several hundred professionals at a major U.S. employer, the results showed formal training efforts were generally not successful in resocializing people to engage in career self-management activities, and when done as an isolated human resource strategy, decreased trainees' likelihood of engaging in career

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Sandra Fisher is employed by Personnel Decisions Research Institutes, Washington, D.C.

Beverly DeMarr is an assistant professor at Davenport College, Grand Rapids, Michigan.

Correspondence and requests for reprints should be addressed to Ellen Ernst Kossek, School of Labor and Industrial Relations, 437 South Kedzie Hall, Michigan State University, East Lansing, MI 48824-1032; kossek@pilot.msu.edu.

self-management behaviors. To the extent that Time 2 expectancy perceptions got worse, the results showed that an individual's attitudes toward feedback seeking mediated the relationship between the training intervention and the level of preparation for job mobility conducted 6–8 months following the training.

The career environment is changing from a traditional one that is "bounded" and driven by orderly employment relations with one employer to one that is boundaryless and increasingly self-directed by the employee (Arthur & Rousseau, 1996). Over recent decades, the wave of corporate restructurings, mergers, acquisitions and downsizings have resulted in workplace trends characterized by job insecurity, flatter organizations, and fewer promotions (Mirvis & Hall, 1994). As a result, even in stable or fast growing firms, employers are increasingly unable (or unwilling) to promise and formally manage career opportunities (Individual Growth Strategies, 1995). Many companies are pursuing a human resource (HR) policy to shift accountability for career management from the employer to the employee by offering formal interventions such as training to help employees learn to take greater responsibility for their own careers (Brockner & Lee, 1995). It is estimated that over half of U.S. firms with one hundred or more employees now offer career self-management training (Brockner & Lee, 1995).

In response to the growing corporate position that employees should take greater charge of their careers, companies ranging from AT&T to Chevron are training employees at every career stage and potential level on how to engage in career self-management (Lancaster, 1997). Many organizations see these programs as a solution to current pressures to lessen job security and employer responsibility for lifelong career planning.

Despite the growth of career self-management training as a prevalent HR strategy to re-socialize employees to increase their career management activity, these programs are rarely rigorously evaluated. Critical questions are whether the ability to manage one's career is a skill that even can be taught effectively via formal programs, and if so, how do these programs operate, and for which employees are these interventions likely to work more or less well? Relying on an expectancy theory framework (Vroom, 1964), the primary goal of this study was to evaluate whether formal resocialization interventions (i.e., training) indeed do have an effect on employees' career self-management activities using a quasi-experimental design.

Secondly, we examined why training exerts its influence. For example, it may be that this training is effective to because it alters employees' career perceptions, acting as motivational influences on one's

willingness to self-manage. Third, we assessed whether there are subgroups of employees for whom such programs are more or less effective. For example, employees may vary in their perceptions that they are able to develop competencies in career self-management (if at all), which may influence training effectiveness. Although many firms are demanding that employees take greater control of their careers and have initiated training activities, such as those studied in this article, to prompt change, our understanding is limited regarding the antecedents of the ability to self-manage one's career and how these are influenced by interventions. Research essentially has been trailing organizational change. This study is one of the first to identify factors related to the effectiveness of formal career self-management interventions and to develop useful outcome measures. The research addresses important issues, not only because of the growing financial resources being allocated to promote career self-management, but also because these activities are likely to become as important as (and may eventually supersede) formal employer-driven career management. As career systems become increasingly self-directed, understanding the conditions under which career self-management training is likely to be successful has implications not only for organizational effectiveness, but also for individual psychological and economic well-being. Below, we define career self-management and review the relevant careers and training literature. We then provide a framework that relies on expectancy theory to examine antecedents of career self-management training outcomes and is organized to answer our research objectives.

Career Self-Management

In order to be career self-managers, employees must take on new roles and responsibilities, engage in constant self-monitoring, and alter how they view their careers and accountabilities. As a prerequisite to assessing the effectiveness of the training intervention, it was critical to operationalize the behaviors that employers and vendors implicitly were attempting to promote, but few had clearly articulated. Our review and conversations with practitioners showed that the concept of career self-management was grounded in current literature on career resilient workers, which argues that self-reliant employees constantly benchmark skills (e.g., seek feedback on strengths and weaknesses), and not only respond to change but anticipate it, as in preparing for new job opportunities (e.g., Bridges, 1994; Waterman, Waterman, & Collard, 1994). The notion of career self-management is also grounded in previous work on career exploration, and management, and socialization (i.e., Greenhaus, 1987; Hall, 1986; Stumpf, Colarelli, & Hartman, 1983).

The career literature focuses on individuals collecting career-related information to increase awareness and insight into personal qualities and job opportunities in order to aid career decision making. "Career exploration" has been defined as an individual's collection and analysis of career-related information, and called central to the effectiveness of the entire career management process. Information seeking is a focal issue in Greenhaus's (1987) definition of career management: A problem-solving process by which individuals gather relevant information through career exploration and develop a greater awareness of themselves and their environment, in order to develop career strategies. In general, research has consistently argued that career information seeking and self-monitoring of how others see us is critical to career development activities (e.g., Hall 1986, 1987, 1991; London 1995; London & Mone, 1987). Such behaviors are seen as meta-skills or generic career management capabilities.

Though prior research has centered on organizational newcomers (Stumpf et al., 1983; Wanous, 1980), we argue that career information seeking has become essential to experienced employees who increasingly need to self-direct their careers. As Rousseau (1996) points out in her work on evolving psychological contracts, understanding the terms of the new implicit employment contract (in this case recognizing the realities of the new career context and that the days of organizational-driven careers are largely over) requires existing employees to act like newcomers, regardless of their tenure. Just as the career socialization of newcomers involves an information acquisition process (Ostroff & Kozlowski, 1992), so does the career re-socialization of seasoned employees. The more career-relevant information that is gathered, the more likely an individual will possess an accurate view of development options and develop career expectations that are consistent with reality (Stumpf & Hartman, 1984).

Career self-management is defined as the degree to which one regularly gathers information and plans for career problem solving and decision making. It involves two main behaviors: one related to continuous improvement in one's current job; developmental feedback seeking; and the other related to movement: job mobility preparedness.

Developmental feedback seeking. Developmental feedback seeking is the extent to which one seeks feedback on performance and career development needs. In order to make self-directed decisions regarding career strategies, individuals need to understand themselves, their strengths and weaknesses, developmental needs, and performance in their current environment (Greenhaus, 1988; London & Stumpf, 1991). Such information is necessary for individuals to develop realistic assessments about their talents and probable career plans (London & Mone,

1987). As growing career uncertainty has fashioned new career systems that must be highly self-directed, self-initiated feedback on current job performance is a critical competency. Willingness to engage in dialogue about personal capabilities with others enables individuals to avoid feeling powerless in monolithic firms and unpredictable labor markets (Schein, 1978). Feedback is sought not only from one's boss, but is expanded to include a wide range of sources, such as peer and customer assessments of performance, that are critical input in re-engineered workplaces.

Job mobility preparedness. Besides collecting information that is local and status quo oriented, an equally important competency involves proactiveness in gathering information about new career opportunities (Hall, 1991) and preparing to act on them. The career information gathered pertains to not only one's present employer, but also outside opportunities. Informal networking with individuals internal and external to the firm is also emphasized as a means of gathering data on the next potential job opportunity. Job mobility preparedness is the degree to which an individual prepares his or herself to be ready to act on internal and external career opportunities. Examples of such behaviors might involve proactiveness in obtaining information about job opportunities, developing internal and external networks of contacts who provide job information, keeping a current resume, and reflecting on the next position desired. Possessing such information readies individuals for possible movement out of one's current position, business unit, or the firm. The failure to engage in sufficient exploration due to complacency, hopelessness, or fear will result in insufficient data to engage in career problem solving and decision making (Greenhaus, 1988).

Career Self-Management Training Programs

Content. The objectives of employee development activities, such as career self-management training, are not necessarily tied to skills and behaviors associated with a specific job, but instead on skills, behaviors, and abilities that are necessary for long-term personal effectiveness (Noe, Wilk, Mullen, & Wanek, 1997). In these seminars, employees typically undergo self-assessments to increase awareness of their own career attitudes and values. They might self-evaluate using the Schein's (1978) career anchors with which they most closely identify, answer questions on career plans and interests geared to help focus goals, and develop career planning templates (Lancaster, 1997). Participants also are usually provided with information to alter their cognitive skills and attitudes toward taking greater responsibility for career management and development. They are encouraged to start viewing opportunities not merely

in terms of the next company promotion, but rather by staying aware of career alternatives in the larger marketplace, so that external opportunities may be viewed as options. Participants might be encouraged to engage in career networking, prepare for job mobility, and seek feedback from others to foster continuous self-improvement. They might hear reports from employees who made transitions to new job opportunities both within and outside of the firm (Brockner & Lee, 1995; Hall & Mirvis, 1995).

Potential difficulties in implementation. Although career self-management training programs may seem beneficial in theory, effectively implementing them might be difficult for a number of reasons. These issues include making participation mandatory or voluntary, managing the timing of program introduction and linking it to the environment for transfer, identifying what kinds of skills or content should be in the training, managing individual and organizational psychological issues arising from the training, and selecting employees with backgrounds most likely to enable them to profit from training.

First, a critical issue to decide is whether training participation should be voluntary or required. On the one hand, employers seeking to rapidly foster cultural change toward greater employee direction of their careers may be tempted to require all employees to participate in career self-management workshops as part of their professional development. For example, in order to make culture change occur via training, companies often roll out training by work unit and train groups at a time. Yet if a chief goal is to socialize employees to be career self-managers, then obligatory training programs could send the wrong message.

Another potential problem with making career development programs work is that training initiatives are likely to be implemented as lead interventions in firms that have not yet adapted their environments to provide a supportive climate for transfer. Although much of the newer careers literature paints a picture of a limited organizational role in career development (e.g., Waterman et al., 1994), Brockner and Lee (1995) argue that employee paralysis will arise if previously paternalistic companies shift the responsibility for career development to the employee without providing a favorable context. They note that the delegation of career decision-making authority does not liberate a firm from providing a supportive climate for its empowered work force. Employees are likely to find it difficult to implement what they learn if they are in an setting where the value of such activities (e.g., networking internally and externally, seeking informal feedback and career advice) are not yet recognized by the culture. Transfer also may be inhibited if formal HR systems such as existing performance appraisal systems are not

altered to better fit with the philosophy of greater employee career self-management, and managers and peers are not trained and rewarded for supporting the training. If the training is done within an unsupportive context, it may simply raise expectations, and then ultimately discourage individuals from acting upon what they have learned when they face implementation barriers.

Identifying the content of the training and what career skills are "teachable" is another key decision. Hall and Mirvis (1995) argue that because the workplace is constantly changing and firms increasingly are unable to clearly specify the kinds of skills they need for future work, organizations should teach adaptability as a "meta-skill" to enable workers to cope with change. Ironically, at the same time however, they question whether some workers can learn to be adaptable. Given this dilemma, it is critical that organizations identify what career management behaviors are teachable (Howard, 1995), particularly to employees in traditional firms who typically are not socialized to self-manage. Although it is possible that the current content of many programs may not include enough emphasis on these "meta-skills," even if one assumes that training is an effective means of increasing understanding of career self-management, some employees simply may not be adaptive enough to be able to perform these behaviors. Certain individuals may be less adept in understanding what they need to do to personally develop themselves, due to a lack of self-awareness. In addition, some experts believe that not all employees want to self-develop, so even if they know how to manage their career, they don't want to. Thus, the quality of the program's content may be irrelevant for some, unless motivational problems are addressed.

There also may be psychological difficulties in managing these career workshops related to either employee anxiety and role overload, or individual and organizational social desirability pressures. Career self-management training is often conducted in a company environment where many employees may be experiencing some career uncertainty and increasing job role demands. The training programs' heightening of the salience of what employees *should* be doing to manage their careers may simply make many individuals more anxious, making the training ineffective. Further, although employees may now realize all that they should be doing as the result of the training, and are more uptight, they may not have time or energy to add new roles. Most employees today are facing increasing workload demands both on the job (in the leaner and meaner 1990's workplace) and at home (with rising numbers of dual career, single parent, and single person households), and may simply be overwhelmed at the thought of increasing self-management role demands. Yet they may put on their "game face" during the training and

verbally concur with the socially desirable view—that employees should control their own career destiny, even though privately they are uncomfortable with this new role.

Such disconnects relating to social desirability must also be managed from the employer perspective. Although managers, peers, and human resource staff may *tell* employees to be more proactive in managing careers, they privately may become uncomfortable as employees rely less and less on the formal career system and entrepreneurially seek career opportunities. Consequently, informal social support for actively engaging in career self-management may be less than enthusiastic.

Finally, trainees' work attitudes and motivation regarding training are likely to have a critical influence on training effectiveness. Tannenbaum and Yukl (1992) note that although trainee characteristics clearly contribute to training effectiveness, "empirical investigation of trainee characteristics in organizational settings is still limited," and more research emphasis needs to be placed on understanding how trainee characteristics influence training. They observe that although it is widely accepted that learning and transfer will occur only when trainees have not only the ability (can do) but also the motivation (will do) to acquire new skills, until only recently there has only been a limited amount of research on the "will do" factors related to training effectiveness.

In summary, the preceding discussion suggests that most employers are likely to encounter difficulties in implementing formal career self-management interventions such as training because it may not have the desired effects on participants.

Framework of Antecedents of Career Self-Management Training Outcomes

Figure Overview

Figure 1 (A and B) shows a general framework on how trainees' career perceptions are motivational influences relating to training effectiveness. Just as a lot of previous research has found motivational perceptions influence training outcomes, we theorized that career perceptions would affect the impact of training. The figure is organized using the notions of instrumentality and expectancy from expectancy theory (Vroom 1964), which many scholars (e.g., Baldwin & Ford, 1988; Noe, 1986) have suggested be used to understand training motivation.

Adaptability and *career self-efficacy* are expectancy-related career perceptions, which refer to the personal belief that one can acquire career self-management skills. Adaptability is defined as the ability to adapt to changing career circumstances, even those that are difficult. It is an indicator of openness to change and hardiness in being able to handle the

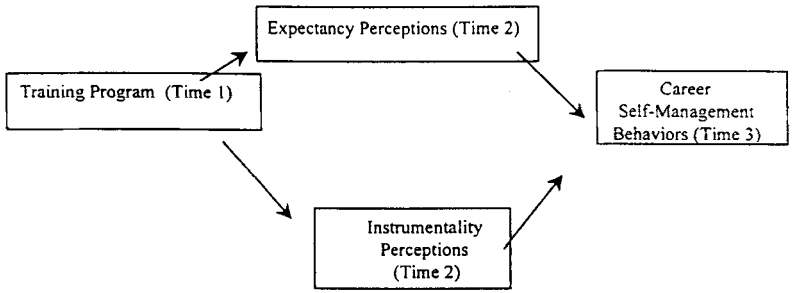

Figure 1A: **Career Perceptions as Motivational Influences on the Effectiveness of Career Self-Management Training Programs: Mediation Model**

stresses of the new career context (Latack, 1989). Adaptability is widely noted in the current literature as being essential for personal career development capability (Hall & Mirvis, 1995). The new organizational environment demands that employees adapt by engaging in greater career self-management activity. Self-efficacy, the belief that an individual can perform a particular behavior, has been positively linked to developmental motivation such as the ability to continue career growth (Bell & Staw, 1989) and have positive affect toward development (Noe & Wilk, 1993). We advance previous research by measuring career self-efficacy, the employee's belief that the employee is competent and able to self-manage his or her career. We theorized that this task specific form of self-efficacy would be closely associated with one's level of career self-management activity. It is highly unlikely that individuals will initiate a lot of self-management activities if they do not believe that they will be able to perform the activities. In essence, if an employee does not believe that he or she can usually change to deal with new situations (adaptability) or has the ability to manage his or her own career (career self-efficacy), it is unlikely the employee will engage in career self-management behaviors.

Feedback-seeking attitudes, and *career training motivation* are instrumentality-related perceptions, which refer to the belief that the acquisition of career self-management skills will lead to specific outcomes. Openness to developmental feedback seeking enables individuals to better understand their environments, have knowledge about their performance, and be able to use these data to their career advantage (Kilduff & Day, 1994; London & Mone, 1987; Turban & Dougherty, 1994). Self-initiation of feedback has been consistently shown to enable individuals to develop corrective performance strategies (Ashford & Tsui, 1991). In

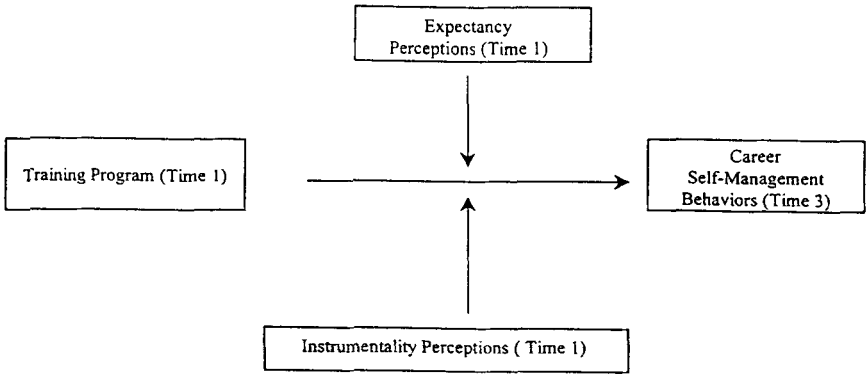

Figure 1B: **Career Perceptions as Motivational Influences on the Effectiveness of Career Self-Management Training Programs: Moderating Model**

light of the widespread shift in many firms toward 360 degree feedback-seeking practices, on-going performance management (as opposed to performance appraisal alone) and voluntary career assessment training, proactive individuals do not wait to be given feedback on their current performance and career and development needs. They are motivated to actively seek feedback data from managers, customers and peers, and find it useful to their development.

For any training program to be successful, trainees must believe that "there's something in it for me"; that participating in training will lead to desired rewards (Wexley & Latham, 1991). Individuals that have high training motivation (i.e., performance-outcome) believe that participating in training and increasing self-knowledge leads to valued outcomes (Noe & Schmitt, 1986). In summary, if an individual does not value seeking feedback, which is critical to engaging in career self-management and planning, or does not think that career training leads to favorable outcomes, it is unlikely that he or she will eventually exhibit career self-management skills.

Because the main employer objective of this training is to increase career self-management activity, training effectiveness is indicated by the degree to which participants increase their developmental feedback seeking (i.e., seeking information on how to continuously improve performance in one's current job), and/or preparedness for job movement (i.e., actions to equip oneself for external job mobility). In both figures, the arrow indicating that participating in training directly influences career self-management behaviors is a visual depiction of Research Objective 1. Assuming that training does influence behaviors, Research

Goals 2 (Figure 1A) and 3 (Figure 1B) sought to clarify how or why training might relate to career self-management behaviors. Relevant literature providing alternative rationale for the possible mediating (1A) or moderating (1B) effects of career perceptions follow below.

Alternative Roles of Career Perceptions: Are They Mediators or Moderators of Training Outcomes?

Mediating model. Figure 1A, the mediating model, suggests that participating in training changes career perceptions, which in turn influences one's level of career self-management activity. The diagonal arrows between expectancy and instrumentality perceptions and training outcomes in Figure 1A, show the mediating relationship (cf. Baron & Kinney, 1986). Applying James and Brett (1984), the influences of an antecedent (training) are transmitted to an outcome (career self-management behaviors) through an intervening variable or mediator (career perceptions related to expectancy or instrumentality.) This model assumes that these motivational career perceptions are the mechanism through which training influences career self-management.

Moderating model. Alternatively, Figure 1B, the moderating model suggests that existing career perceptions might influence how employees are likely to respond to training. It examines the degree to which the relationship between participating in training and one's level of career self-management activity is likely to work more or less well for subgroups of employees, depending on their career perceptions. If these antecedents serve as moderators, the effects of participating in training on one's level of career self-management activity will vary as a function of one's level of career perceptions.

For example, London and Bassman (1989) suggested that people with low adaptability would be less likely to learn and apply new knowledge to improve career opportunities. Pulakos, Arad, Plamondon, and Keichel (1996) defined adaptability as the individual characteristic that allows people to increase their level of fit with the work environment. Once informed about the new career environment, people high in adaptability may have been better able to adapt by seeking feedback and preparing for career movement than those who are lower in adaptability. Regarding career self-efficacy as a potential moderator, many articles discuss the important role of self-efficacy in training (Goldstein, 1991; Tannenbaum & Yukl, 1992). In general, trainees with higher self-efficacy benefit more from training. Gist, Steven, & Bavetta (1991) found, for example, that pretraining self-efficacy was related to the initial performance levels of the interpersonal skills taught in the training course and to skill maintenance over time.

One would expect that people with positive attitudes toward an element of the training should be more likely to perform the behaviors being encouraged after the training has been conducted. It may be that people with positive attitudes toward feedback seeking, a critical career self-management activity, were also easier to train; the training didn't have to change their attitudes, just their behaviors. As Kraiger, Ford, and Salas (1993) argue, training outcomes can be both attitudinal and behavioral, are not discrete but interrelated, and attitudes must often be consistent with the new behaviors being taught. In order for high levels of self-management behaviors to occur after the training, individuals may initially needed to have favorable attitudes toward feedback seeking. A similar argument follows for training motivation. It is well established that the higher one's training motivation, the better one's learning (Tannenbaum & Yukl, 1992). Those individuals who generally believe that attending career training leads to specific outcomes may have been more able to learn the career self-management information in the training than those who initially thought the training would be a waste of time.

Method

Setting. The study involved several hundred salaried professionals located in seven distinct divisions of a leading U.S. employer in the transportation industry. Historically, professional employees could expect to work for this firm their entire lives and career mobility was often vertical or geographical. Over the past few decades, as in many large companies, many employees had experienced career uncertainty and stagnation, and constant organizational restructuring and cost-cutting. Currently, the firm's management was exploring mechanisms to shift the employee mindset away from job entitlement toward greater career self-management. The firm wanted to resocialize employees to take greater responsibility for managing their careers by engaging in informal career behaviors (i.e., feedback seeking, networking, etc.). The firm hired a consulting firm that was nationally renowned for its work in career management to jointly develop a formal training intervention, entitled "Individual Growth Strategies." Its purpose was to change employee's attitudes toward career self-management and related behaviors. Entire work groups were trained at each site as a means to foster culture change toward increase self-management activity.

Career self-management training premises, objectives, and content. The training was designed to assist employees as they take more responsibility for and control over their careers. It was developed based on several premises. The first was that employees should play a more active role in their development. The second was that self-assessment and increased

self-knowledge of one's level of fit with one's current job is a critical business strategy. The third was that informal careers systems will always play a viable role in organizations. The final premise was that feedback is more valuable if solicited by the individual.

The broad training goals were (a) to change individual knowledge, attitudes and behaviors regarding career development and growth to shift the mindset away from career entitlement to career empowerment; (b) to increase knowledge of and emphasis on informal career management systems such as networking, and seeking regular feedback; and (c) to foster greater employee preparation for job-related changes. Specifically, the training was designed to change employees' attitudes to increase their level of initiation of certain behaviors associated with career self-management; informal feedback seeking on current performance and developmental needs, and preparing for internal or external job mobility.

The content of the 3 day employee training program was based on the principles of Schein's work on career dynamics (1978) and Deming's work on feedback seeking (1986). Day 1 of the training included two modules entitled "Process Orientation," and "Job Clarification and Feedback." "Process Orientation" was designed to build an understanding of why the firm was moving toward a more self-directed career development system and how it fit with the changing career environment. "Job Clarification" provided a tool for self-management of the soliciting of data and integration of feedback on job performance and developmental needs. The second day of training was a self-discovery workshop entitled "Alignment and Self-Assessment." Relying heavily on Schein's notion of career anchors, trainees conducted a self-assessment of their anchors (career orientations), interests, values, and skills. They were encouraged to reflect on the level of alignment in their current situation between their personal values and needs and the degree to which these were being fulfilled on the job or away from work. The third day of training focused on career strategies for creating opportunities. It provided information on formal and informal career opportunity systems, emphasizing the critical role of connecting (networking) in creating opportunity. It also provided skill building to increase career planning and networking.

Pilot study. A university research team was responsible for collecting baseline data on correlates of career self-management attitudes and evaluating the effectiveness of the training as a longitudinal research study. Because this project involved an investigation of a relatively new phenomenon, a pilot study was conducted. The pilot entailed interviews with human resource executives and senior consulting firm members, an employee focus group, observation of career training programs,

and a survey of over 100 salaried professionals. At this preliminary research phase, a key objective was to identify what organization members meant by career self-management, and to test measures of career self-management behaviors. In general, career self-management was viewed as relying less on formal company driven career systems, and more on informal career management mechanisms (e.g., self-initiated feedback seeking, networking, preparing for mobility).

Procedure. Data were collected from seven sites within the organization in the U.S. and Canada. There was a trainee group and control group at each site. The control group was matched with the trainee group by age, gender, tenure, and function. Three waves of data were collected, the first two using a mail survey, and the third using a telephone survey. Trainees responded to all three waves of the survey, and control group members responded to the first and last (third) waves.

The data collection had the following structure and purposes. Both groups at each site were sent the pretraining questionnaire, referred to as Wave 1. The purpose of the first wave was to collect baseline attitudinal and demographic data for trainees and control group members. Only trainees received a post-training mail survey (Wave 2), which was administered 3 months after training. The purpose of the second wave was to assess any changes in trainees' attitudes as a result of the training. (The control group was not resurveyed at Wave 2, because the survey was so similar to Wave 1, we were certain that the control group would be unlikely to fill it out again having not gone through the training.) The third wave of the data collection was administered 6 to 8 months after the training. The third wave was a phone survey. Only those trainees and control group members who had responded to Wave 1 were surveyed in Wave 3. The purpose of the third wave was to measure changes in career management behaviors.

Measures

To develop the measures, an extensive review of the literature on career self-management was conducted, and established scales were used wherever possible. Scales were adapted to fit the study's purposes, if needed. New scales were developed to tap into constructs previously unmeasured in the literature, and were factored analyzed, reviewed by the HR staff, and pretested in the pilot study. (All items for new measures that cannot be found in the previously published literature are in the Appendix.).

Independent variables (questionnaire). *Career self-efficacy* is the degree to which one believed he or she was capable of managing one's

career. Because we wanted to assess how a context-specific form of self-efficacy—the belief that one is able to perform well at managing one's career—related to career outcomes (as opposed to general self-efficacy), we adapted 10 items from Sherer and Adams (1983) general scale to measure career self-efficacy (see Appendix). Sample item: "When I make plans for my career, I am confident I can make them work." *Adaptability* was a 4-item scale developed by Lambert (1993). Sample items: "I adapt easily to changes in my life." "I adapt easily to changes in my job." *Attitudes toward feedback seeking* was measured using items measuring the perceived risk and value of seeking feedback on one's performance based on Ashford's (1986) work. Sample item: "I know how well I am doing without asking others." *Training motivation (performance outcome)*, measured using a scale derived from Noe and Schmitt (1986), assessed the perception that participating in training will lead to valued outcomes. As the list of all the items used in this scale in the Appendix shows, 6 of the items are identical to Noe and Schmitt's scale. We choose to drop their item "Increase your chances of becoming a school administrator," because our study did not take place in a school. The 2 new items we added in response to the root of Increasing my skills through training at my organization has helped me to: were "Increase my chances of attaining career goals"; and "Increase job security."

Demographics measured included: gender, race (dummy coded White and nonwhite), age (under 35 years, 35–45 years, over 45) and whether one was in the training or control group. The control group had been selected to match the trainees by age, gender, and function in the company by design.

Dependent variables (telephone interview). All items for our dependent variables assessing career self-management activity, which were collected separately from our antecedents in Wave 3 and developed specifically for this study, are found in the Appendix. A sample from the 6-item scale assessing *Developmental feedback-seeking behaviors* is "To what extent have you initiated feedback about your career progress to date?" Some samples from the 9-item scale assessing *job mobility preparedness behaviors* are "How current is your resume?" and "Over the past 6 months, to what extent have you thought about what position you would like to have next?" Employees were also given the opportunity to make open-ended comments.

Sample. Of the 798 mail surveys delivered, 519 were returned at Time 1, for a response rate of 65%. Fifty-three percent (n = 295) of these were trainees, with the remaining 47% in the control group. The Wave 2 survey was sent only to trainees. Of the 295 surveys sent out, 180 were returned, a response rate of 61%. Wave 3 surveys were sent

TABLE 1

Descriptive Statistics

Variable	*X*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Adaptability	2.25	.57	.74													
2. Career-training motivation (Performance outcome)	2.66	.67	.08	.94												
3. Career self-efficacy	2.24	.43	.40*	.19*	.76											
4. Feedback-seeking attitudes	2.38	.47	.28*	.24	.38*	.76										
5. Under 35 years old	.24	.43	−.16	−.40	−.10	−.17	na									
6. 35–45 years old	.30	.46	−.04	.03	−.04	−.05	na	na								
7. Over 45 years old	.42	.49	.16	.01	.11	.19	na	na	na							
8. Male	.22	.42	−.10	−.03	−.07	−.07	.13	−.02	−.09	na						
9. African American	.07	.29	−.12	.02	−.02	.11	−.04	.06	−.02	.15	na					
10. Other minority	.05	.21	.03	.00	.04	.01	.06	.06	−.10	.00	na	na				
11. White	.82	.39	.04	−.04	−.02	.05	.04	−.03	.14	−.12	na	na	na			
12. Developmental feedback-seeking behaviors	3.02	.82	.24*	.20	.38*	.34*	−.15	.00	.13	−.08	−.14	−.03	.14	.76		
13. Job mobility preparedness behaviors	3.59	.94	.24*	−.03	.25*	.25*	−.28*	.02	.25*	.02	−.05	−.11	.16	.46*	.84	
14. Career self-management trainee	.53	.50	.02	.01	.00	.05	.00	.00	.00	.00	.00	.04	−.06	.18*	.12	na

For the attitudinal scales the closer the score is to 1, the more favorable the attitudes. Alpha reliabilities in diagonal. *$p \leq .01$
na = not applicable

to all 519 respondents to the Wave 1 survey. Of these, 319 or approximately 62% participated in the follow-up telephone survey conducted 6–8 months later. The response rates for both the training group and the control group at Wave 3 were virtually identical. There were no significant differences in the demographics of the two groups. Three-fifths of the sample were in technical functions (e.g., manufacturing, engineering) and the remainder were in nontechnical areas. Most (88%) were White and/or male (78%); 7% were African American; and 5% were other minorities. Twenty-four percent were under 35 years, 30% were 35–45 years, and 42% were over 45 years old. Regarding tenure, one fourth (24%) had less than 10 years, a third (33%) had 11–15 years, and 43% had more than 15 years. Analyses were conducted to ensure that there were no significant difference between the trainee and control groups or between respondents and nonrespondents.

Results

Descriptive Statistics and Scale Reliabilities

Table 1 shows means, standard deviations, interscale correlations, and reliabilities for all of the measures. The Cronbach alpha values range from .74 (adaptability) to .87 (job movement preparedness). During the pilot study, the scales were factor analyzed using principle components extraction and varimax rotation. The solution did not differ from a principle factors solution, so we retained the principle components solution. The factor structure for all of the scales was as expected. For the statistical analysis, all measures were organized (with reverse coding where necessary) so that under a 5-point Likert-type scale (1 to 5), the closer the score is to "1," the more favorable the rating.

Regression Analysis

The first question we examined was whether or not the training intervention had an effect on career self-management behaviors. This question was assessed using ordinary least squares regression that included variables to control for the effects of demographic characteristics. The results are shown in Table 2. In both the feedback seeking and job mobility models, after controlling for demographics, the change in R^2 is statistically significant for participating in training. These results suggest that training does have an effect on both outcome behaviors; however, the effect is in the *opposite* direction from what was expected.

TABLE 2
Regression Results Testing Effect of Training

	Career self-management behaviors	
	On-the-job developmental feedback seeking β coefficients	Job mobility preparedness β coefficients
Intercept	.00	.00
Demographics		
Over 45	.18*	.41***
Baby boom (35-45)	.13	.26***
White	.14	.11
Other minority	.05	−.04
Male	−.05	.10
Model R^2	.03*	.13***
Career self-management trainee	−.18***	−.11*
Model R^2	.07***	.14***
R^2 change	.04*	.01*

Significance levels: two-tailed t-test *$p \leq .05$ **$p \leq .01$ ***$p \leq .001$

With the exception of age, there were no significant differences in these results based on employees' demographic background. The coefficient for the age category "over 45" was positively related to the propensity to seek feedback and job mobility preparedness. Those age 35–44 were also more likely to prepare for job mobility than younger employees. The aging effect was greater for job mobility preparedness than for feedback seeking. Since this study was exploratory, we conducted additional analyses to examine whether there were any significant two-way or three-way interactions between race, gender, and age and career self-management, and none were significant.

Given the results in Table 2 suggesting that training does affect our dependent variables, the next question addressed was why does training exert its influence? We examined whether the effect of training is mediated through the four career perceptions, which include two expectancy (adaptability and career self-efficacy) and two instrumentality perceptions (feedback-seeking attitudes and career training motivation).

That is, we investigated the possibility that the training also had a negative effect on career perceptions. Because the Wave 2 questionnaire was not administered to the control group, this issue could only be examined using data from the trainees. A pre–post comparison of career perceptions (except for adaptability for which we only have data at Time 1) was done using a t-test. As the results indicate in Table 3, there are statistically significant differences between the pretraining and posttraining career perceptions. Contrary to the objectives of the training, career perceptions worsened after the training and seem to translate into

TABLE 3

Analysis of Change in Trainees over Time

Variable	Pretraining (Wave 1)	Posttraining (Wave 2)	Level of significance*
Career self-efficacy	2.23	2.41	.000
Attitude toward feedback seeking	2.41	2.47	.023
Training motivation	2.57	3.11	.000

* One-tailed *t*-test.

lower levels of career self-management behaviors. Thus, the data were consistent with the mediation model shown in Figure 1A.

Alternatively, we then examined the possibility that the initial standing on these same four perceptions moderate the effect of the training on the outcome variables. That is, that the effect of training varies with the level of one's career perceptions. This is tested by creating interaction, or cross-product, variables that are the product of training and each of the career perception variables. The results of that test are shown in Table 4. As is evident, none of the coefficients for the interaction variables is statistically significant. This suggests that the effect of training on the outcome variables is not moderated by the level of one's career perceptions.

Discussion

This study shows that career self-management training does influence employees' career self-management behaviors, but in the *opposite* direction of the training's intent. Individuals who went through the training were less likely to engage in career self-management behaviors 6–8 months following the training. When done as an isolated HR strategy, some career self-management training may be worse than none at all. Companies need to be wary of the possible effects of training backfiring if it is used as the sole HR intervention.

There are several possible explanations of why we found a negative relationship between the training and the dependent measures: the higher standard effect, behavioral extinction or withdrawal effects due to unmet expectations, and backlash due to mandated participation.

Higher standard explanation. The higher standard explanation relates to potential priming effects of the training. The trainees may have had their awareness heightened regarding of all the new self-management activities they *could* (or felt they should) be doing if they were actively managing their careers. Perhaps they held themselves to a higher standard regarding career management activity than the control group. Now

TABLE 4

Regression Results Testing Moderation Effect of Career Perceptions

	Career self-management behaviors	
	On-the-job developmental feedback seeking β coefficients	Job mobility preparedness β coefficients
Intercept	.00	.00
Demographics		
Over 45	.08	.33***
Baby boom (35-45)	.10	.24***
White	.13	.10
Other minority	.04	−.05
Male	−.04	.10
Career perceptions		
Adaptability	.11*	.15**
Career self-efficacy	.12	.09
Feedback-seeking attitudes	.23	.13*
Career training motivation	.12	−.08
Career self-management trainee	−.14**	−.09
Model R^2	.22***	.21***
Interaction variables		
Adaptability *training	.44	.33
Career self-efficacy *training	−.03	.26
Feedback-seeking attitudes *training	−.34	−.17
Career training motivation *training	.07	−.05
Model R^2	.23***	.22***
R^2 change	.01	.01

Significance levels: two-tailed test. *$p \leq .05$ **$p \leq .01$ ***$p \leq .001$

that they know what it *really means* substantively to engage in these behaviors, they realize they aren't doing as much as what they might have imagined they were doing if they had not had the training.

Employee withdrawal effects due to unmet expectations. Another explanation for the results is behavioral extinction effects due to participants' unmet expectations posttraining. Trainees were told that career self-management and employee fulfillment were outcomes the firm really cared about (which the vendors and the people conducting the training sincerely did). Trainees were also told that they needed to resocialize to more actively control their career, taught new behaviors, and encouraged to engage in new behaviors. However, it is likely that the rhetoric of the training did not match up with the reality that trainees encountered back in the workplace. Though the training raised expectations that individuals should be able to take more control of their careers, employee alienation and cynicism may have set in after trainees had a big build-up on the importance of career self-management, and then they experienced the reality of what it means to try to self-manage careers in a traditional firm where the employer shifts the responsibility for career

management to employees without first providing a supportive environment. The employer had undergone little or no change to formulate new organizational and supervisory roles (and concomitant HR policies) to support career self-management. Although nontrainees may be casually conducting some career self-management activities anyway, the unmet expectations that trainees had, and the severe discouragement some may have encountered in the unreceptive climate for transfer, could have resulted in a negative influence on performing career self-management behaviors posttraining.

As Baldwin and Magjuka (1997) wrote, the domain about expectations about training needs to be more fully explored. Just as research on realistic job previews and expectations showed that met expectations are associated with higher satisfaction and lower withdrawal behaviors (Premack & Wanous, 1985), it may be that unmet expectations from the less than realistic preview provided in training was associated with lower satisfaction and higher withdrawal behaviors. As classic behavioral theory suggests, a conditioned response will quickly become extinct if it is not reinforced (Skinner, 1953). The possibility for negative effects (as opposed to null effects of the training) is also suggested by a comment from a focus group conducted several months after the training: "[There will be] significant harm to the employee if [the training] not supported properly."

Backlash from mandating participation in interventions focused on voluntary change. A third explanation for the negative results, which was suggested in our introduction on potential difficulties in implementing career self-management training, is possible backlash from mandated training on how to perform a voluntary activity. If a chief goal of the training was to socialize employees to be career self-managers, then required participation in training programs sent the wrong signal and may have actually alienated trainees. Mandated self-management training, though typical of many companies' approach to foster attitudinal and culture change, can actually hurt efforts to promote greater personal empowerment and self-regulation.

Lessons for employers. The results highlight the potential unintended consequences from using required career self-management training to lead culture change. This study illustrates the dangers of using a mandated pilot program and one-time approach to innovation. Though the training may have initially motivated employees to change, the lack of opportunity for them to practice their career self-management behaviors in the workplace may have eventually worsened their motivation to exhibit these behaviors, and it probably would have been better for them to have never been trained at all. Further, instead of trying to mandatorily train a cross-section of people at the initiation of a program involving

culture change, it may be preferable to voluntarily enroll people who are positive about the themes of the program—in this case adaptability and feedback seeking, and then have these individuals work as change agents within the organization. Social influence literature suggest that the most influential source of information is often a trusted peer (Rogers, 1995).

To the extent that career perceptions of trainees worsened, the results suggest partial mediation by attitudes toward feedback seeking and adaptability. Organizations may be well advised to conduct an attitude change intervention prior to career self-management training. A large scale intervention could have been conducted to make individuals view self-initiated feedback seeking more positively before training implementation. Certainly greater communication about the change in the career environment and the growing importance of employees' learning adaptive strategies to self-manage this change may increase individual motivation about how learning career self-management training content is personally beneficial. As Howard (1995) concludes on the subject of the changing psychology of work, motivational and affective factors are becoming increasing important to personal effectiveness in the workplace, despite the fact that most employers are unsure how to manage them.

We've noted the rhetoric of the training and the employer's belief that greater self-management was needed, was far ahead of the reality the employees faced in the current culture and the existing human resource systems. In partnership with academics, future employer initiatives should examine the design and implementation of supportive interventions and new HR systems to support career self-management in the new context, and how these shape employee career perceptions and experiences. Formal HR systems such as mentoring, career pathing, and training and development opportunities are likely to be less effective, because rising uncertainty makes it increasingly difficult for firms to map future needs (Hall and Mirvis, 1995) making informal career systems of paramount importance. Yet most firms lack understanding of how to effectively utilize informal systems and have limited strategies for supporting implementation of career self-management training.

Future research: Investigate individual and contextual influences on career self-management. Successful development strategies are likely to be based on holistic models that use both informal and formal tactics and consider the influences of individual employee characteristics and needs and their organizational context (Baldwin & Ford, 1988; Maurer & Tarulli, 1994; Noe & Wilk, 1993). Career theorist Bailyn (1989) has argued for the integration of individual perspectives, which focus on an individual's ascribed (i.e., demographic) or psychological (i.e., personal disposition) characteristics, and contextual perspectives, which ex-

amine constraining or enabling aspects of the social environment. Yet little empirical work has synthesized these approaches nor considered formal training and informal career socialization influences. Although our study makes progress to increase understanding of how the effectiveness of career self-management training is influenced by trainee career perceptions, future work should build on this study and examine how individual and contextual influences interact to effect training outcomes.

In this study, we measured the quantity of career self-management activity. Given that considerable numbers of employees in large traditional organizations are probably not engaging heavily in any of these activities (e.g., constantly seeking feedback from multiple sources, career networking), we felt these measures were a good place to begin for an exploratory study. Future work should try to also assess quality of career self-management activity and then link these to other outcomes (which should not only include job movement, as has been conventually assumed in career research, but actually staying in a current job and enjoying it!). We wish to emphasize that studying only traditional career outcomes, such as job rotation, and movement within and external to the firm, is likely to provide an incomplete understanding of current career self-management issues. Formal movement may be severely diminished due to a host of factors that may be personal (i.e., growth in less mobile dual career families); organizational (i.e., flattened firms with lessened upward or geographic opportunities), and economic (i.e., downsizing, decreasing financial relocation assistance). As a critical starting point, we believe scholars and firms should examine correlates of a propensity to actively engage in career management activities and how these relate to organizational interventions such as training.

It is also critical that future studies examine employees' self-assessments of career management skills, as we did, because the philosophy of the new careers literature is that psychological success and career development must increasingly be determined in the eyes of the individual, rather than by organizational metrics (Mirvis & Hall, 1994). Research is needed on differing social constructions of career self-management from employer and employee perspectives with a gap analysis conducted. In this study, the employer assumed that greater career self-management was desirable and not all employees may concur.

Future research should also explore how age and career life cycle influence the effectiveness of career self-management training and interact with the career motivational perceptions we examined. Our demographic findings suggest that older employees in the large traditional firm we studied may have seen the writing on the wall—they would have to prepare to be ready for job movement or may face involuntary movement to a less desirable job or no job at all. Having experienced careers

in a large firm first hand, they also may have come to the increasing realization that the large employer no longer necessarily provides the most desirable career opportunities.

Scholars and organizations need to develop greater understanding of how to create conditions where employees will feel comfortable with career self-management. Unlike traditional measures of environmental influences, which are largely based on employee self-assessments of the level of managerial social support for career development (e.g., Noe, 1996), group-based measures of the supportiveness of the general climate for engaging in career self-development activities should be developed. It is well documented that perceptions of the climate for transfer, such as social support and situational constraints, affect participation in voluntary development activities (Maurer & Tarulli, 1994; Noe & Wilk, 1993). Consistent with the view that career systems are culturally driven (Schein, 1978), future research should assess the extent to which the work environment would influence the adoption of new (and perhaps risky) career self-management behaviors. Future research might assess whether individuals in work groups with members who placed a high value on feedback seeking and had many members who were high in adaptability would exhibit higher levels of career self-management activity than those in sites with less supportive members.

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APPENDIX

Measures Developed for the Study

Career self-efficacy—Adapted from Sherer and Adams (1983) general self efficacy scale (scale: 1 = *strongly agree* to 5 = *strongly disagree*).

When I make plans for my career, I am confident I can make them work.

If I can't do a job the first time, I keep trying until I can.

When I set important career goals for myself, I rarely achieve them.

I avoid facing career difficulties.

When I have something unpleasant to do that will help my career, I stick with it until I am finished.

When I decide to do something about my career, I go right to work on it.

When trying to learn something new on my job, I soon give up if I am not initially successful.

I avoid trying to learn new things that look too difficult for me.

I feel insecure about my ability to get where I want in this company

I rely on myself to accomplish my career goals.

I do not seem capable of dealing with most problems that come up in my career.

Self-initiated developmental feedback-seeking behaviors (scale: 1 = *not at all*, 5 = *a great deal*).

Over the past 6 months... to what extent have you initiated feedback about your:

job performance from your immediate supervisor?

job performance from individuals other than your supervisor?

service to your customers (which are people you serve either internally or externally by performing your job?)

career progress to date?

training and development needs?

opportunities for future career development?

Job mobility preparedness (scale: 1 = *not at all*, 5 = *a great deal*, except where noted).

How current is your resume? (scale: 1 = *not at all current*, 5 = *very current*).

Over the past 6 months, to what extent have you:

reviewed internal job postings?

have you actively investigated internal job postings?

have you discussed future job openings within your internal network?

have you discussed future job postings within your external network?
have you thought about what position you would like to have next?

To what extent do you actively seek out information about job opportunities outside the organization?

To what extent have you sought out any new personal connections at work in the past 6 months for the purpose of furthering your career?

To what extent have you sought out any new personal connections outside of work for the purpose of furthering your career?

Training motivation (Adapted from the Performance Outcome measure in Noe & Schmitt, 1986) (scale: 1 = *strongly agree*, 5 = *strongly disagree*); * = new items.

Increasing my skills through training at my organization has helped me to:

a. grow as a person
b. increase my self-confidence
c. obtain respect from peers
d. increase my chances of attaining career goals*
e. obtain a salary increase
f. perform my job better
g. acquire new knowledge
h. increase job security*