Asian Business and Management

ASIAN BUSINESS AND MANAGEMENT

VOLUME IV

Edited by

Michael A. Witt

⑤SAGE

Los Angeles | London | New Delhi
Singapore | Washington DC

British Library Cataloguing in Publication Data

Contents

Volume IV

Culture

Culture

Self or Group? Cultural Effects of Training on Self-efficacy and Performance

P. Christopher Earley

W hile scholars have increasingly emphasized the important role in work performance of a person's cognitive estimate of his or her capability to perform a given task, or his or her self-efficacy (e.g., Bandura, 1986; Wood and Bandura, 1989), scant attention has been paid to how self-efficacy functions across national and cultural work contexts (for exceptions, see Triandis, 1989; Erez and Earley, 1993). In this paper, I study the underlying process through which cultural background influences how individual and group training affects self-efficacy and performance.

Introduction

Scholars have proposed several typologies of cultural dimensions that are useful for such a study. One such dimension is individualism and collectivism, or an individual's perceptions and attitudes toward him- or herself and others in social relationships (Kluckhohn and Strodtbeck, 1961; Triandis, 1989; Hofstede, 1991; Schwartz, 1993). In an individualistic culture, people look to their own actions to understand who they are, and these actions are relatively independent of others. In a collectivistic culture, people base their self-understanding on the reactions of important others around them.

A worker from an individualistic culture strives to improve work performance because of the recognition he or she may receive, whereas a worker from a collectivistic culture seeks improvement because of the gains his or her group may receive (Wagner and Moch, 1986; Erez and Earley, 1993). Thus, people's self-concepts are regulated, in part, by their cultural orientation and values (Epstein, 1973; Rokeach, 1973).

The Role of Individualism-Collectivism in Shaping Self-efficacy

Bandura (1986: 391) posited that self-efficacy influences performance primarily through increasing a person's effort and persistence. An individual with high self-efficacy works harder and longer than an individual with low self-efficacy (Wood and Bandura, 1989). One way that self-efficacy is shaped is through social influence. Verbal coaching and information that a person receives about performance norms, future expectations, and past performance all influence self-efficacy (Bandura, 1986) by persuading him or her that a given performance level is attainable. Garland and Adkinson (1987) found that self-efficacy was increased by simply telling subjects during the training before a task, "You can do it." Meyer and Gellatly (1988) found that subjects who were presented with normative information before a task on performance levels achieved by other subjects changed their levels of self-efficacy. These studies demonstrate that information, such as task training, a person receives shapes self-efficacy through a variety of influences. For instance, normative information may make cognitively salient certain performance levels over others through a priming or attributional effect (Garland, 1985; Gist and Mitchell, 1992). A person's confidence may be boosted by verbal coaching based on his or her relation to the coach (Hinrichs, 1976). Another effect of normative information on people's efficacy is due to framing and anchoring influences (Bazerman, 1990; Earley and Erez, 1991). What remains unstudied is where people look to get this information and how this might be related to people's cultural backgrounds.

Bandura (1986) suggested that self-efficacy is, in part, socially constructed and that such construction may differ as a function of national culture. Just as our culture teaches us what ideals to hold and what beliefs to endorse (Rokeach, 1973), it plays a role in how we construct our self-efficacy. Several researchers (Triandis, 1989; Markus and Kitayama, 1991; Erez and Earley, 1993) have argued that individualists and collectivists, categorized by the cultures from which they come, differentially sample their social environment. Triandis (1989) used Baumeister's (1986) distinction among the private, public, and collective selves, in which the public self refers to the self using generalized others, the private self refers to using personal reference points, and the collective self refers to using a specific reference group, or in-group, in an assessment of the self. He argued that the likelihood of sampling a particular self is related to cultural background, such that, for example, in

families in which a child is urged to act independently, the private self is likely to be accessed when the child faces new challenges. Consistent with Markus and Kitayama (1991) and Triandis (1989), Erez and Earley (1993) suggested that individualists use privately referenced information (e.g., their own performance) in establishing their self-efficacy, collectivists use in-group-referenced information (e.g., the in-group's performance), and that, other aspects of culture being comparable, both individualists and collectivists sample the public self with equal frequency.

By extending this logic to training in a cultural context, I argue that individualism and collectivism partly determine a person's use of the information provided during training and, hence, self-efficacy and task performance. For the individualist, training that emphasizes personal capability (the private self) will tend to be sampled and used. For the collectivist, whose focus is on the collective self, training that emphasizes in-group capability will tend to be sampled and used:

> **Hypothesis 1a (H1a):** People from a collectivistic culture who are provided with group-focused training will have higher self-efficacy and perform better than people from a collectivistic culture who are provided with individual-focused training.

> **Hypothesis 1b (H1b):** People from an individualistic culture who are provided with individual-focused training will have higher self-efficacy and perform better than people from an individualistic culture who are provided with group-focused training.

Memory structures, knowledge, and experiences stored schematically are not solely accessed through a single self; rather, people more easily incorporate information that is provided when it is consistent with their culturally dominant self. As Triandis (1989) suggested, whether they are individualists or collectivists, people sample from all three selves, with the amounts varying by cultural background. This implies that individualists provided with group-focused training or collectivists provided with individual-focused training do not ignore the information they receive; they use it to different degrees in assessing their self-efficacy, provided that it is relevant to a given task. While training consistent with a person's cultural background will be more effective than inconsistent training, training that is inconsistent will still be sampled, and it will provide some benefits. Indirect support for this point is evident in the training literature, which has shown that people respond to both individual and group-based methods (Hinrichs, 1976). Thus, I also hypothesize,

> **Hypothesis 1c (H1c):** Regardless of a person's cultural background, either type of training will increase self-efficacy more than no training at all.

Training information and culture may also jointly influence performance. Based on the literature discussed by Bandura and his colleagues (Bandura,

1986; Wood and Bandura, 1989), the logical causal chain is that culture and training influence self-efficacy and effort which, in turn, influence perform-ance. The relationship of self-efficacy and effort to task performance is well documented; people with high self-efficacy work harder and outperform people with low self-efficacy (Gist and Mitchell, 1992). A simplified version of the model described by Gist and Mitchell (1992) illustrates this chain. They argued that self-efficacy and its consequences, such as effort, mediate the influence of experience (e.g., verbal persuasion) on performance. Thus, I further hypothesize,

> **Hypothesis 2 (H2):** Self-efficacy and effort will mediate the interac-tive effects of training and culture on performance.

To test these hypotheses, two studies were conducted in a highly individu-alistic culture (United States) and two highly collectivistic cultures (Hong Kong and People's Republic of China). U.S. culture consists of a strong work ethic emphasizing individual achievement and reward, as well as a strong individual goal orientation (Hofstede, 1980; Triandis, 1988). Chinese society, by contrast, has been historically focused on social interests, collective action, and an emphasis on shared responsibility (Li, 1978; Hsu, 1985; Boisot and Child, 1988; Bond, 1988). The cultural heritage shared by Hong Kong and the People's Republic of China has reinforced a number of similarities across the two cultural environments, including an emphasis on in-group loyalty and willingness to put group interests ahead of self-interests. While the cul-tural and economic revolutions of the 1970s in the People's Republic of China have placed additional emphasis on equality, contribution to society and group welfare, and concern for interpersonal and work relationships (Lindsay, 1983; Hsu, 1985; Laaksonen, 1988; Earley, 1993), recent research using Hong Kong Chinese participants has demonstrated the strong, collective cul-tural norms that exist there (e.g., Hofstede, 1980; Bond, Leung, and Giacalone, 1985; Bond, 1988). Although Hong Kong and the People's Republic of China are not identical cultures, what is important for my studies is the relative position of Hong Kong and the People's Republic of China compared with the United States on the cultural value of individualism-collectivism. Chinese culture's collective orientation and high social interest (e.g., social integration, interpersonal responsiveness) suggest that Chinese workers in general are more responsive to group context than Americans, and they focus more on social interests, collective action, and shared responsibility.

Overview of Experiments

Two types of information were provided during training in both studies: information concerning a person's own capability to perform a task (individual-focused) and information concerning the capability of a person's in-group

(reference group) to perform a task (group-focused). In the individual-focused training condition, participants were given information about their own actions and capability. In the group-focused condition, the participants were given information about their group's capability.

In the laboratory experiment, I focused on the role of training and culture on an individual's performance as a result of his or her self-efficacy and effort. The only difference between the training conditions was the focal point of the information (self versus group). Study 1 illustrates the direct impact of information type on performance through self-efficacy and effort.

I also wanted to examine the effect of an individual's work strategy, which Wood and Bandura (1989) noted often plays a strong role in determining performance. In Study 2, therefore, I conducted a field experiment to extend the training intervention to include task-strategy information in the form of job-related information concerning how to perform better. This was done both to enhance the mundane realism of the field experiment, given that training in a real-world context contains work-strategy information as well as performance expectations, and to expand the sophistication of the intervention in order to determine if self-efficacy will still have an effect when the job-training information includes task-strategy information.

Study 1: Laboratory Experiment

Method

Participants. Two hundred and fifty-one managers (67 Hong Kong Chinese, 96 Chinese from the People's Republic of China, and 87 Americans) participated in the study on a voluntary basis. The Chinese participants were recruited from management training courses hosted by a university in southern China and a university in Hong Kong. All of the managers were natives of the countries in which they were attending their training. The American participants were recruited from a management training course that they were attending on human resources management (HRM). Participants from all three countries were employed in full-time management positions, and they were sponsored by their organizations for the course. A comparison of the three groups based on age, education level, gender, and company size demonstrated no differences among the groups. The mean age of participants was 32.3 years, modal education level was a bachelor's degree, and company size was between 5,001 and 10,000 employees. In addition, 20 participants from Hong Kong, 25 from the United States, and 24 from the People's Republic of China were women.

Design and task. The design used a cultural variable, individualism-collectivism, and three types of task training, no training, individual-focused training, or group-focused training. The purpose of the training manipulation

was to determine whether or not people derive their efficacy expectations from different sources (individual level versus group level versus no training). In the no-training condition, managers were not given any training. In the individual-focused training condition, managers were given information specific to their own performance potential and actions. In the group-focused training condition, managers were given information specific to their group's performance potential and actions. Individualism-collectivism was measured as a continuous variable.

The experimental task was to generate alternative daily work schedules of employees based on a three-shift workplace and 30 employees having various schedule preferences. The managers were asked to generate as many alternative schedules as possible during a 30-minute period, using the constraints of employees' preferences for shifts and their availability. The managers were told that they had to conform to several rules in scheduling: First, they had to use employees' preferences and availability for shifts; second, no employee could serve on more than a single shift on a given day; and, third, the schedules could not repeat themselves. The task was chosen both because it consisted of an activity familiar to all participants in their normal work activities and because similar scheduling tasks have been used successfully in other task-performance studies (e.g., Erez, Earley, and Hulin, 1985). The schedules were scored as correct if all scheduling rules were followed. Scoring was done by two raters, who had a high interrater reliability ($r = .97, p < .01$). Sets of materials were prepared for the subjects in their native language. The procedure for developing and translating the materials used back-translation (Brislin, 1980); the text was simplified through the use of short sentences and focused on specific rather than general concepts. The back-translation was performed by two assistants to the experimenter who are bilingual, and the translated version of the task was examined by a Hong Kong Chinese colleague in order to ensure that it made sense for the Hong Kong sample.

Dependent measures. Performance was measured by the number of work schedules correctly completed by a participant during the 30-minute performance period.

Self-rated effort was measured with two items, using a 5-point scale, before subjects began the task: (1) "How hard are you going to try as you work on this task?" ($1 =$ not at all hard and $5 =$ extremely hard) and (2) "How much effort do you intend to exert as you complete schedules?" ($1 =$ no effort and $5 =$ a great deal of effort). These items were averaged for a composite effort score, and the items were significantly correlated ($r = .82, p < .01$).

Individualism-collectivism was assessed on a 5-point Likert scale ($1 =$ strongly disagree and $5 =$ strongly agree), using the eight-item version of a questionnaire developed by Earley (1993), who adapted previous items in order to focus on the goal, task-performance, and in-group aspects of this

cultural value, individualism-collectivism. Items included (1) "Employees like to work in a group rather than by themselves"; (2) "If a group is slowing me down, it is better to leave it and work alone"; (3) "To be superior, a man must stand alone"; (4) "One does better work working alone than in a group"; (5) "I would rather struggle through a personal problem by myself than discuss it with my friends"; (6) "An employee should accept the group's decision even when personally he or she has a different opinion"; (7) "Problem solving by groups gives better results than problem solving by individuals"; and (8) "The needs of people close to me should take priority over my personal needs." I chose to use this questionnaire because goals and performance are integral aspects of self-efficacy (Wood and Bandura, 1989) and because it has been used successfully in the countries studied in my research.

Responses to the scale were coded so that a high score indicated collectivistic values, and a low score indicated individualistic values; the reliability (Cronbach's alpha) of the scale was .73. A principal-components analysis demonstrated that the items loaded on a single factor having an eigenvalue of 4.89, accounting for 49 percent of the total variance; factor loadings ranged from .51 to .82.

To measure self-efficacy, subjects were asked to rate their self-efficacy for nine levels of possible performance – completing 5, 10, 15, 20, 25, 30, 35, 40, and 45 schedules – using a 100-point certainty scale, where 0 = "certain the performance level cannot be achieved" and 100 = "certain the performance level can be achieved." For subsequent analyses, the responses to the scale were averaged for a composite self-efficacy score that had a reliability (Cronbach's alpha) of .75.

Procedure. The participants in all samples followed the same experimental procedure. The managers participated in the experiment during an HRM executive education course, which I taught, as a normal exercise during their regularly scheduled program. I introduced the exercise to the managers as an illustration of general management planning and work activities; they were asked if they were willing to participate in the exercise, and none refused. The managers were randomly assigned to one of the three training conditions, and they were given a packet containing various materials, including a questionnaire assessing general demographic information, individualism-collectivism, and a statement concerning their willingness to participate in the exercise. After completing the questionnaire, the managers read the task instructions and then worked on sample schedules for ten minutes, after which they were permitted to ask questions about the task. I then picked up these materials, handed out booklets containing the experimental task materials, and began the training intervention.

The managers were put into three separate areas based on the number at the top of their task booklets, which had been distributed on a random basis. In the *no-training condition*, participants were asked to read some general information concerning management practices (an interview with a

CEO reported in *Academy of Management Executive*), which took approximately the same amount of time as the training intervention in the other two conditions. Pilot testing with this task demonstrated that people reading this article prior to working on the task did not become more fatigued than people simply instructed to begin immediately working on the task.

In the *individual-focused training condition*, I gave the participants a sheet containing several pieces of training information intended to bolster their individual self-efficacy expectations about performing the task. First, a formula was presented into which the managers put their practice trial performance, years of work experience, job level (based on a 3-point classification scheme), and years of education and then calculated a number that they compared with a categorization scheme of supplied values to extrapolate their performance across a 30-minute period. The categorization scheme was constructed so that all of the managers fell into the same category, although none of them was aware that the outcome was contrived. This was accomplished by supplying values for the high category that everyone would fall into. Second, the managers read three "manager performance profiles" and were told to choose the one that most closely resembled them. They were again referred to the categorization scheme to see what performance level they might expect to achieve. As with the formula, the profiles were constructed so that the managers would find themselves in the same category that was indicated by the formula. This was accomplished by constructing the profiles such that only one profile would fit all the managers. Third, the managers completed two items that captured their "management performance quotient": (1) "Based on your typical work performance, would you characterize yourself as an energetic and dedicated employee or someone who is quite distracted and uninvolved in your work?"; and (2) "Are you a performance-oriented person or someone who just completes the minimum requirements?", where $1 = $ yes and $0 = $ no. They were again referred to a categorization scheme to see what performance level they might expect to achieve. As with the formula, the profiles were constructed so that the managers would find themselves in the same category that was indicated by the formula. In this category, a response of yes to either question placed them in a high-performance category.

Finally, I told the managers to calculate an overall performance-potential score from the number of times that they categorized themselves in the "high-performance" category (a maximum of three times, using the three sections of the materials), and they were told to evaluate their potential based on a final categorization scheme at the end of the materials: low performance – 15–25 schedules; average performance – 25–35 schedules; or high performance – over 35 schedules. A post-hoc analysis of the managers' classification demonstrated that they all correctly classified themselves in the high-performance category, which demonstrates that the manipulation was successful.

In the *group-focused training condition*, I gave the managers an information sheet similar to the one used in the individual-focused condition except that the various items were adjusted to reflect the potential performance level of others whom they viewed as important to them. The instructions specifically directed them to think about four or five of their closest friends and/or family who worked. I chose to include referent members from both family and friends, rather than limit the categorization to coworkers, because previous research on group membership and collectivism has shown the importance of familial connections to in-group composition (e.g., Triandis, 1989). Managers were asked to write the initials of these people at the top of their sheet and to keep thinking of them as they worked through the items. The first item was a formula in which the managers put in the average number of years of work experience that their referent friends/family members had accumulated, average job level (based on a 3-point classification scheme), and average degree acquired. The managers then calculated a number that they compared with a categorization scheme of supplied values to extrapolate their group's performance capability across a 30-minute period. As in the individual-focused condition, the categorization scheme was constructed so that all of the managers fell into the same category, although none of them was aware that the outcome was contrived. Second, the managers read three "manager performance profiles" and were told to choose the one that most closely resembled their chosen family/friends. They were again referred to the categorization scheme to see what performance level they might expect to achieve. The profiles were constructed so that the managers would inevitably pick the same category as indicated by the formula. Third, the managers completed two items that captured their "management performance quotient": (1) "Based on your typical work performance, would you characterize your chosen family members/friends as energetic and dedicated or individuals who are quite distracted and uninvolved in their work?"; and (2) "Are your chosen family members/friends performance-oriented or people who just complete the minimum of what is required of them?" Again, these items were constructed so that the managers would answer consistently with one another, and they were directed to evaluate the responses with the supplied categorization scheme. Finally, the managers were told to calculate an overall performance potential score for these referent others from the number of times that they categorized their family/friends in the "high-performance" category (a maximum of three times, using the three sections of the materials), then to categorize the performance potential of their referent choices based on a final categorization scheme at the end of the materials: low performance – 15–25 schedules; average performance – 25–35 schedules; high performance – over 35 schedules. A post-hoc analysis of the classification used by the managers demonstrated that all of the managers correctly classified their referent group in the high-performance category, which demonstrates that the

manipulation was effective. I then gave the managers a short questionnaire assessing their intended effort level and self-efficacy expectations.

In each group, after the questionnaire was completed and collected, the managers were instructed to begin working on the task with the booklet of materials provided. At the end of the 30-minute performance period, I collected the materials, debriefed the managers concerning the purpose of the experiment, and answered any remaining questions they had. Finally, I discussed the relationship of the experiment to processes of work motivation and performance in organizations across various cultural settings.

Analysis. My method of analysis consisted of regressing performance on the predictor variables (effort, efficacy, individualism-collectivism, training condition), followed by country of origin, which was captured using two dummy variables contrasting Hong Kong with other countries (dummy 1) and the United States with the other countries (dummy 2). Inasmuch as I was interested in the relationship of individualism-collectivism and its interaction with training as mediating variables, I analyzed the data using a regression model rather than using an ANOVA approach.

Given that the hypotheses concern the relationship of training condition and individualism-collectivism to performance, I created two predictor variables that capture the cultural-level and individual-level aspects of individualism-collectivism.[1] The general logic of this procedure is to separate the "shared" (or cultural-level) aspect of the assessed values and beliefs (individualism and collectivism) from that aspect of the values and beliefs that has been uniquely shaped by an individual's experiences (an individual-level characteristic). Separating collectivism-individual from collectivism-group allows me to estimate the unique contribution of each level of this construct (shared value versus individual differences characteristic). The hypotheses concerning individualism and collectivism were therefore tested comparably at the cultural level and the individual level, using collectivism-group (cultural-level) and collectivism-individual (individual-level), with collectivism-individual functioning as a psychological variable and collectivism-group functioning as a cultural variable.

I calculated the mean individualism-collectivism score for each country and assigned this score to each participant from that country (labeled collectivism-group). I then calculated a difference score by subtracting each person's individualism-collectivism mean score for the 8-item scale from his or her country score (labeled collectivism-individual) after removing that person's own score from the overall mean. Collectivism-group represents a country (or the "culture") score, while collectivism-individual represents an individual's deviation from the country score. Thus, the former variable represents the general culture shared within a given nation, and the latter variable represents an individual-differences characteristic.

The use of a difference score is not without problems. In particular, difference scores are subject to low reliability (Cohen and Cohen, 1975:

375–382), particularly when calculating differences using change scores, which attenuates the magnitude of the relationship between the deviation score and other variables. This unreliability becomes increasingly problematic as the component reliabilities of the variables used to calculate the difference score become increasingly intercorrelated and unreliable themselves. In my studies, the correlation between collectivism-group and the individualism-collectivism score was moderate (.50 and .31 for studies 1 and 2, respectively), and the component scale reliabilities were in excess of .80, which yields an acceptable estimated reliability (.68 and .72 for studies 1 and 2, respectively) for the differences scores (Cohen and Cohen, 1975: 64).

I aggregated the samples for the analysis and examined the residual influences of country of origin in predicting performance after accounting for the collectivism-individual and collectivism-group variables. The general logic of this approach is that individualism-collectivism (partitioned into collectivism-individual and collectivism-group components), rather than country of origin, drives the hypothesized interaction. After accounting for variance attributable to collectivism-individual, collectivism-group, training, collectivism-group × training, and collectivism-individual × training, the two dummy variables for country and their interaction with training should not explain additional variance in performance. Further, I would anticipate that both collectivism-individual and collectivism-group (and their interactions with training) would significantly predict performance both before and after entering the two dummy variables for country and their interaction with training.

Results

The means and standard deviations for performance, effort, efficacy, and individualism-collectivism are presented in Table 1 for the three training conditions and three countries. The Pearson correlations for all the variables are in the Appendix.

To test the hypotheses that people from individualistic and collectivistic cultures would respond differentially to individual-focused and group-focused training (H1a, H1b, H1c), I regressed performance hierarchically on the demographic variables of age, education level, gender, and company size (step 1), training, collectivism-group and collectivism-individual (step 2), the training by collectivism-group, collectivism-individual interactions (step 3), the two country dummy variables (step 4), and the dummy variables by training interactions (step 5). The results of this analysis are presented in Table 2, and there appears to be clear support for the hypothesized interactions. After controlling for the main effects, the interaction terms were significantly related to performance (change in R^2 = .08, $p < .01$).