Abstract

Title of Dissertation: INDIVIDUAL AND UNIT LEVEL GOAL
                                       ORIENTATION AS PREDICTORS OF
                                       EMPLOYEE DEVELOPMENT

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In recent years, goal orientation has gained interest among academics and practitioners

alike. This paper examines several variables related to goal orientation that have not

been thoroughly investigated in the past. I hypothesized that both team- and individual-

level learning orientation would have a direct effect on the decision to pursue

development opportunities. I also hypothesized that the previously-mentioned notion of

team goal orientation would affect the belief that increased performance leads to certain

consequences (*instrumentality*), which are either deemed as positive enough to desire or

negative enough to avoid (*valences*). Key findings include positive relationships between

team learning orientation climate and individual contextualized and non-contextualized

learning orientation, as well as a direct relationship between contextualized learning

orientation and development. Additional findings indicate that valence and

instrumentality mediate the relationship between contextualized learning orientation and

development. Hypothesis testing for performance-prove and performance-avoid

orientation models was not as successful, but the study does give some support to a two-

(as opposed to three-) factor model of goal orientation. Limitations and directions for

future research are also presented.

INDIVIDUAL AND UNIT LEVEL GOAL ORIENTATION AS PREDICTORS OF

EMPLOYEE DEVELOPMENT

by

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Introduction

As the world becomes fast-paced and technology-driven, jobs and careers are becoming more complex. Multi-tasking is a fact of organizational life, making it necessary for employees to possess knowledge of, and skills and abilities in, a variety of areas. Further, because the average professional will change jobs (or even careers) several times in his or her professional lifetime, working individuals must constantly maintain their knowledge bases so that they will be prepared when new job opportunities arise. For these two reasons, and many others, professional development is becoming increasingly important to organizational members (McCauley, Ruderman, Ohlott, & Morrow, 1994).

Despite the importance of development activities to an individual's career and an organization's performance, little is known about the factors that motivate employees to pursue such activities. Variables such as social pressures (Maurer & Palmer, 1999), self-efficacy (Noe & Wilk, 1993), and ability to learn (Van Velsor, McCauley, & Moxley, 1998) have been examined as antecedents to development motivation, but no consistent theory has emerged. Further research in this area would allow organizations to (a) select employees who are inclined to seek out development opportunities, and (b) create work environments in which development opportunities are supported and rewarded. The purpose of the present study is to examine two variables, individual- and unit-level goal orientation, as predictors of the pursuit of development opportunities.

Individual goal orientation is defined as "a mental framework for how individuals interpret and respond to achievement situations" (Brett & VandeWalle, 1999). In achievement situations, individuals with a learning orientation look to increase or

improve upon their skills, while those with a performance orientation are concerned with demonstrating their own competence in order to gain positive perceptions (performance-prove orientation) or avoid negative ones (performance-avoid orientation). Previous research indicates that learning-oriented individuals are more likely to pursue development activities (Tesluk, Dragoni, & Russell, 2002), but this research says nothing about the relationship between performance orientation and development. Consistent with Tesluk et al. (2002), I argue that learning orientation is positively associated with development activities.

In addition, previous research investigating the relationship between learning orientation and development activities did so from a trait, or non-contextualized, perspective, conceptualizing learning orientation as a stable construct that varies little across time or situations. Research indicates, however, that goal orientation can be influenced by the situation (contextualized goal orientation; VandeWalle, 1997). Therefore, another purpose of this study was to examine the relationship between contextualized goal orientation and development. Using Kanfer's (1992) distinction between proximal and distal variables, I argue that contextualized goal orientation mediates the relationship between non-contextualized goal orientation and the pursuit of development opportunities.

The final variable that I investigated as an antecedent to development activities was team-level goal orientation climate. This variable, which has been advanced in recent years (Bunderson & Sutcliffe, 2002; 2003), reflects an attention to environment, which has not been thoroughly investigated with respect to goal orientation. I hypothesize that team learning orientation climate has both a direct and indirect (through

its effects on individual learning orientation) effect on pursuit of development opportunities. I also argue that unit-level performance orientation affects individual-level instrumentality and valence, or the belief that improving performance leads to consequences which are either valuable enough to desire (in the case of performance-prove-oriented individuals) or negative enough to want to avoid (in the case of performance-avoid-oriented individuals).

These hypotheses were tested using surveys distributed to approximately 390 organization employees. Perceptions of unit-level goal orientation were tested for agreement and then aggregated to the group level for analysis; other individual-level variables such as goal orientation, valence, instrumentality, and expectancy were analyzed at the individual level of analysis. I begin with a review of the literature on individual- and unit-level goal orientation, which concludes with my first hypothesis regarding learning orientation and development. This is followed by a discussion of team goal orientation climate, which I hypothesized would be related to individual goal orientation based on both socialization theory and attraction-selection-attrition (ASA) theory. I also hypothesized that team learning orientation would be directly related to the pursuit of development opportunities. After these hypotheses, I turn to a discussion of Vroom's (1964) VIE theory, and predict that team goal orientation will affect individual-level valence and instrumentality, such that individuals on learning-oriented teams are more likely to perceive that improved performance leads to valuable intrinsic rewards, such as more challenging assignments. (I make hypotheses for performance-prove and performance-avoid teams as well; these hypotheses focus on different consequences of improved performance.) Finally, I argue for a specific relationship between

contextualized and non-contextualized goal orientation; specifically, I maintain that contextualized goal orientation mediates the relationship between non-contextualized goal orientation and development.

For ease of understanding, I have created a diagram of the hypotheses that are to be presented. This model has been broken into three smaller models that correspond to each of the different types of goal orientation (again, for ease of interpretation). These models can be found in Figures 1, 2, and 3 of this document.

As noted, I begin this paper with a review of the goal orientation literature.

Individual-Level Goal Orientation

Organizational research has typically construed goals as performance standards that an individual should, or would like to, attain. Theory and empirical research, in turn, investigate factors that might influence a person's likelihood of attaining one or more goals (VandeWalle, 1997). For example, Locke and Latham's (1990) goal setting theory suggests that goals are most effective when they are specific and difficult to achieve, but not so difficult to be demotivating. But research in the education literature has focused on higher-level classes of goals that can influence individuals, distinguishing between a goal of *developing* competence and a goal of *demonstrating* competence. Several theories have noted this division. For example, Nicholls (1984) distinguished between *task involvement* and *ego involvement*. A task-involved individual sees challenges, courses, and learning as opportunities to develop or improve his or her competence at a task. A person who is ego-involved, on the other hand, is more concerned about validating his or her current competence at a given undertaking, and comparing that competence to that of other individuals. Similarly, Butler (1992) maintained that

individuals with *mastery goals* are focused on learning, while those with *ability goals* pay more attention to social comparison and ability appraisal.

By far the most research, however, has been devoted to *goal orientation* (Button, Mathieu, & Zajac, 1996; Dweck, 1986). A construct borrowed from educational research, goal orientation is defined as an individual's tendency toward developing or demonstrating talent in achievement settings (Dweck, 1986). Like the theories that came before it, goal orientation theory suggests that individuals can possess one of two types of superordinate goals during task performance: a goal focused on improving competencies and acquiring new skills (*learning goal*) and a goal focused on demonstrating competence and comparing one's own abilities to those of others (*performance goal*).

In the following sections, I first describe some of the early research on the basics of goal orientation, including how it influences cognitions, affect, and behavior; its relationship to implicit theories of intelligence, and its dimensionality. I then describe some of the organizational research on goal orientation before advancing hypotheses about its relationship to development activities.

Early Research on Goal Orientation

Research in this area began in the field of educational psychology, where Diener & Dweck (1978, 1980) asked elementary school-aged children to attempt a number of academic-type problems. The first eight of these problems were relatively simple so that most students were successful in solving them. Researchers were interested in the children's reactions to the final four problems, which were much more difficult. To monitor these reactions, they asked children to verbalize what they were thinking as they

worked on the problems; children were permitted to talk about whatever they wished, whether it was task-relevant or not.

In the course of these studies, researchers noticed that, when faced with a challenge, some children were energized while others became helpless. This difference in reaction was unrelated to intelligence, strategy, or ability: Helpless children exhibited the same objective skill levels as mastery-oriented children. Nonetheless, helpless children clearly displayed negative self-cognitions. For example, they tended to cite their own deficiencies as the reasons for their failures. These children also displayed high amounts of negative affect, as exhibited by self-reported boredom and dislike of the task. Finally, children's helplessness influenced their behavior: After failing, their problem-solving strategies declined to a point where a majority of them were using strategies far below their age level.

On the other hand, mastery-oriented children demonstrated positive levels of cognitions, affect, and behavior when faced with a difficult task. Instead of seeing themselves negatively when they could not solve the problems, they perceived the problems as challenges that could only be overcome with effort. They also showed positive affect, as evidenced by an optimism that their hard work would eventually result in success. Finally, mastery-oriented children increased rather than decreased their level of problem-solving strategy.

These early results were not limited to laboratory studies. For example, in a study conducted by Licht and Dweck (1984) children were taught new materials using handbooks. Near the beginning of the handbooks, children read a passage that was irrelevant to this material; for half of the students, the writing in this passage was clear,

but for the other half it was rather confusing. After reading their handbooks, the children's mastery of the material was measured. Results indicated that mastery-oriented and helpless children exhibited similar levels of knowledge in the no-confusion condition. However, children exposed to the confusing passage (i.e., a challenging condition), showed marked differences: Most of the mastery-oriented children reached the learning criterion, whereas less than half of the helpless children did. In other words, when faced with a challenge, mastery-oriented children outperformed helpless children.

This line of research led Dweck and her colleagues to conclude that the different kinds of children were pursuing different goals. The helpless children, they hypothesized, pursued *performance goals*, seeking only to demonstrate their abilities. Mastery-oriented children, on the other hand, pursued *learning goals*; their primary motivation was to gain knowledge. Elliott and Dweck (1988) tested this hypothesis by inducing children with either performance or learning goals and also giving them either positive or negative feedback about their ability on a pretest. They then allowed the children to choose between either an easy or a difficult task (i.e., a task that would allow them to learn but one at which they might fail, thereby running the risk of a negative evaluation). Consistent with their hypotheses, children with a learning orientation chose the difficult task regardless of their pretest assessment. Children with a performance orientation, on the other hand, chose the difficult task only if their pretest evaluation was positive (i.e., they thought that they would succeed even at a difficult task); if their pretest evaluation was negative, they chose the easy task. Other early studies using different methodologies confirmed that goal orientation was most likely the mechanism behind the helplessness/mastery orientation phenomenon.

Early research on goal orientation indicated that individuals with different goal orientations generally exhibit different cognitions, affect, and behaviors. I turn to these topics next.

Goal Orientation and Affect and Behaviors

Affect

Goal orientation relates to people's affect, especially if the person experiences a setback. In the face of challenge, a performance-oriented individual sees him or herself as lacking in skill or ability, which threatens self-esteem and could lead to anxiety and depression. For these people, challenge could also trigger defense mechanisms, which would make the individual devalue the task or express boredom at having to continue it. All of these reactions were exhibited by performance-oriented participants in the Diener and Dweck (1978, 1980) studies cited earlier. But learning-oriented people see setbacks as a challenge and may even become excited at the prospect of having to conceive creative solutions to the problem (Dweck & Leggett, 1988). In fact, some research has indicated that for a person with a learning orientation, simply exerting effort can be a source of pride (Ames, Ames, & Felker, 1977).

Behavior

Finally, and perhaps most important to organizational research, goal orientation is related to an individual's behavior. As indicated by the Dweck and Elliott (1983) study, individuals with a performance orientation are likely to choose tasks at which they know they will succeed, while learning-oriented individuals prefer tasks that will provide a challenge. In addition to task choice, goal orientation also affects behavior in the face of

failure. When challenged, a performance-oriented individual may stop exerting effort (Dweck & Reppucci, 1973), while a learning-oriented person will try harder.

Goal orientation also influences effort and performance. Fisher and Ford (1998) examined the strategies that individuals with different goal orientations used to learn a new technique and found significant differences. Specifically, learning-oriented individuals were more likely to use an elaboration strategy (relating the new material to other, previously-understood material), while performance-oriented participants tended to use a rehearsal strategy (i.e., rote memorization). Similarly, Winters and Latham (1996) found that learning-oriented individuals and performance-oriented individuals used similar strategies on easy tasks; however, learning-oriented individuals used more effective strategies than performance-oriented individuals on the difficult task. They also discovered that individuals with a performance orientation outperformed those with a learning orientation on simple tasks, but the opposite was true for complex tasks. Similarly, VandeWalle, Brown, Cron, and Slocum (1999) found no relationship between performance orientation and performance, but a positive relationship between learning orientation and performance. This relationship was fully mediated by goal setting, effort, and planning.

In addition to investigating the effects of goal orientation on cognitions, affect, and behaviors, previous research has examined whether the construct is composed of one, two, or three dimensions, an important debate that I will describe in the following section.

Learning and Performance Orientation: One, Two, or Three Dimensions?

Theory and research in the field of education has implied that learning and performance goals are opposite ends of the same continuum, as indicated by studies that assign individuals to one of these orientations or the other (e.g., Ames & Archer, 1987) and then manipulate participants' orientations. This would imply that the traits associated with learning orientations are exactly the opposite of those associated with performance orientations and that one person could not possess both types of goal orientation in the same situation. Some researchers, however, suggest another idea: that learning orientation and performance orientation are actually two separate constructs (Nicholls, Cheung, Lauer, & Patashnick, 1989). They argue that it is not difficult to conceive of an individual studying for an exam for two purposes: to get an A, but also to increase his or her knowledge of an interesting topic. In addition, they note that relationships between the two types of goal orientation and other variables are not opposites, just different. Button et al. (1996) cite the example of reaction to failure, noting that while people with a performance orientation react negatively to failure, those with a learning orientation are also not overjoyed; they simply see failure as indicative of ways to improve performance in the future. Finally, Button et al. (1996) note that the conceptualization of goal orientation as a one-dimensional construct leads to measurement issues, in that a person in the middle of the scale could be seen as possessing neither type of goal orientation or both types of orientation simultaneously.

Early research in this area was inconclusive. Thorkildsen (1988) found the two constructs to be negatively correlated, while Nicholls, Patashnick, and Nolen (1985) obtained a positive correlation, and Nicholls, Cobb, Wood, Yackel, and Patashnick

(1990) found no significant relationship. But recent research has been more convincing: In four separate studies, Button et al. (1996) found that a two-factor model of goal orientation provided significantly better fit to their data than did a one-factor model. In other words, a single individual could be high on one or the other, high on both constructs, or low on both constructs. An individual who is high on both constructs would probably exhibit concern for his or her own performance with respect to that of others, while simultaneously expressing a desire to improve performance (VandeWalle, Brown, Cron, & Slocum, 1999).

Recently, the suggestion has been made that goal orientation could be conceptualized as a three-dimensional construct. Middleton and Midgley (1997) argue that both learning orientation and performance orientation in its traditional sense can be considered "approach" tendencies (c.f., Nicholls, Patashnick, Cheung, Thorkildsen, & Lauer, 1989). They note, however, that motivation theorists generally speak in terms of approach tendencies and avoid tendencies. Consistent with this reasoning, VandeWalle (1997) argues that the desire to gain positive evaluations and the desire to avoid unfavorable judgments are actually two separate constructs, rather than one performance-orientation construct (Heyman & Dweck, 1992). Middleton and Midgley (1997) and VandeWalle (1997) therefore advocate breaking goal orientation into three dimensions: learning, performance-prove, and performance-avoid.

This three-dimensional notion was originally tested by Nicholls et al. (1989), who developed a goal orientation instrument consisting of an Ego Orientation scale (similar to the performance-prove dimension) and an Avoid Inferiority scale (similar to the performance-avoid dimension). However, a factor analysis indicated that these two

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scales were actually only one factor; in subsequent research, the Avoid Inferiority scale

was dropped. Additional research indicates that the traditional two-factor model is

superior to a three-factor model (Silver, Dwyer, and Alford, 2006).

Research conducted after Nicholls and his colleagues (1989) has indicated that the

three-dimensional conceptualization of goal orientation may be preferable to the two-

dimensional conceptualization. For example, Attenweiler and Moore (2006) conducted a

series of factor analyses, and concluded that a three-factor model was superior to a two-

factor model. Elliot and Harackiewicz (1996) found that prove and avoid orientations

were associated with different levels of motivation for a problem-solving activity. In

addition, discriminant validity research indicates that the constructs differentially predict

other constructs: The preference for difficult and challenging tasks (mastery; Helmreich

& Spence, 1978), feedback-seeking behavior, and the desire to work hard (work;

Helmreich & Spence, 1978) were, as expected, positively correlated with learning

orientation and negatively correlated with performance-avoid orientation. However,

these scales had no significant relationship with performance-prove orientation

(VandeWalle, 1997). Similarly, Middleton and Midgley (1997) discovered that a

performance-avoid orientation was negatively related to self-efficacy, while

performance-prove orientation (called "performance-approach" in their study) was

unrelated to this variable. In addition, a performance-avoid orientation was associated

with the avoidance of seeking help from others, while a performance-prove orientation

was unrelated to this variable. Brett and VandeWalle (1999) found that the performance-

prove and performance-avoid orientations were differentially related to the content of

individuals' goals: A performance-prove orientation was associated with skill refinement

goals as well as goals dealing with comparison to others, while a performance-avoid orientation was positively correlated with goals dealing with avoiding negative evaluations. Lastly, a recent meta-analysis (Payne, Youngcourt, and Beaulien, 2007) found positive relationships between learning orientation and a variety of outcomes such as learning and performance, negative relationships between performance-avoid orientation and these outcomes, and nonsignificant relationships between performance-prove orientation and these outcomes.

Although research comparing the two- versus three-dimensional nature of goal orientation is still in its early stages, preliminary studies indicate that the three-dimensional conceptualization is more informative. Therefore, in the current study, I conceptualized goal orientation in the three-dimensional manner, focusing on learning orientation, performance-prove orientation, and performance-avoid orientation.

Non-contextualized and Contextualized Goal Orientation

Until now, I have described individual-level goal orientation as a stable, non-contextualized trait rather than a situationally-specific, or contextualized, state. This is not necessarily the case. Some studies (e.g., Elliott & Dweck, 1988) have successfully manipulated goal orientation, suggesting that the construct can in fact vary depending on the circumstances. This notion is further corroborated by studies finding that goal orientation is affected by reward structures (Ames et al., 1977), normative information (Jagacinksi & Nicholls, 1987), and evaluative feedback (Butler, 1987). In addition, Button et al. (1996) argue that the fact that researchers have successfully measured goal orientation in particular situations (e.g., Ames and Archer, 1988, asked students about

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their goal orientation in a particular class) is evidence for the conditional nature of the construct.

To test these competing hypotheses, Button et al. (1996) administered measures of both dispositional and situational goal orientation to their participants. These measures differed in that the dispositional questions asked about the person's general beliefs, goals, etc., while the situational questions asked about these characteristics in that particular circumstance. Using confirmatory factor analysis, the researchers found that situational and dispositional goal orientation were in fact two separate constructs. This evidence implies that goal orientation can be determined by the situation. Button et al. (1996) assert that in most situations, individuals will express the goal orientation to which they are predisposed (non-contextualized goal orientation). However, a particularly strong situation (Mischel, 1977) can determine a person's goal orientation (contextualized goal orientation).

In this study, I wished to investigate both situationally independent (i.e., noncontextualized) and situationally dependent (i.e., contextualized) goal orientation. More detail will be provided later in this paper about specific hypotheses for contextualized and noncontextualized goal orientation.

My review of early literature on goal orientation as well as some of the basic characteristics of the construct is now complete. I will now turn to a summary of organizational research on individual-level goal orientation, followed by a discussion of goal orientation hypotheses for the present study.

Goal Orientation in Organizational Research

Although the vast majority of goal orientation research has been conducted in the field of education (Dweck, 1999) on child samples, some theory and research has been generated in organizational settings using adult participants. The following sections of this paper will explain organizational research using goal orientation, including research in the areas of goal setting, performance feedback, and training and development (Farr, Hofmann, and Ringenbach, 1993). It is important to note that none of this organizational research conceptualized goal orientation in the three-dimensional manner, preferring instead to use only learning and performance goal orientation measures. Due to the aforementioned research indicating the advantage of a three-dimensional conceptualization over a two-dimensional one, this hole in organizational research is one that must be filled.

Goal Orientation and Goal Setting

Goal setting theory (Locke & Latham, 1990) maintains that individuals are motivated by goals to the extent that these goals are specific and difficult to achieve. Farr et al. (1993) suggested that goal orientation and goal setting should be related. Recall that a performance-oriented individual is concerned mainly with demonstrating competence or avoiding demonstrating incompetence; a difficult goal is therefore undesirable because it increases the chance of failure. On the other hand, someone who cares more about increasing competence than demonstrating it would be more motivated by a difficult goal because this type of goal would allow the person to gain more knowledge. Therefore, Farr et al. (1993) hypothesized that individuals with a learning

orientation should be more likely to accept difficult goals than individuals with a performance orientation.

Farr et al.'s (1993) hypothesis has been tested and confirmed. Winters and Latham (1996) assigned participants either a learning goal or a performance goal (what they referred to as outcome goals) and found that participants with a learning orientation were more likely that those with a performance orientation to achieve the difficult, specific goals assigned to them. In an interesting follow-up to the Winters and Latham study, Phillips and Gully (1997) measured goal orientation and found that learning orientation was positively correlated with self-efficacy, while performance orientation was negatively correlated with self-efficacy. Self-efficacy in turn was correlated positively with the setting of difficult goals. In other words, not only are individuals with a learning orientation more likely than performance-oriented individuals to <u>accept</u> difficult goals than performance-oriented individuals, they are also more likely to <u>set</u> difficult goals for themselves.

In addition to the difficulty of goals, the types of goals that individuals pursue have been investigated with respect to goal orientation. Brett and VandeWalle (1999) found that individuals with learning goals were more likely to espouse goals that focused on skill improvement, whereas performance-oriented individuals were more likely to rate positive comparison and avoid-negative evaluation goals as important. In other words, individuals with a learning orientation pursued goals having to do with improving their skills, while those with a performance orientation pursued goals having to do with the evaluation of their previous performance.

Goal Orientation and Performance Feedback

Farr et al. (1993) made several predictions regarding performance feedback and goal orientation. Consistent with Dweck and her colleagues' research, they predicted that individuals with a performance orientation would view negative feedback as indicative of a lack of ability and therefore react negatively to it. Learning-oriented individuals, on the other hand, were hypothesized to see negative feedback as advice on how to improve performance in the future. Farr et al. (1993) made similar predictions regarding feedback-seeking behavior. Because they see it as a chance to increase their competence, learning-oriented individuals were hypothesized to seek out feedback frequently and directly. On the other hand, performance-oriented employees probably would not want to receive feedback for fear that it could be negative; they would therefore use less direct forms of feedback-seeking (Ashford & Cummings, 1983).

Finally, Farr et al. (1993) made predictions about feedback-giving as well as feedback-seeking and -receiving. Specifically, they asserted that managers are likely to give feedback that is consistent with their own goal orientations. Therefore, managers with a performance orientation would most likely give feedback only about previous performance, whereas those with a learning orientation would give feedback about how to improve previous performance and be more effective in the future.

Goal Orientation and Training and Development

The majority of goal orientation research that has been conducted in organizations has focused on the area of training and development. For example, Chiaburu and Marinova (2005) found a positive relationship between learning orientation and pre-training motivation. Additionally, Kozlowski, Gully, Brown, Salas, Smith, and Nason (2001) hypothesized that both types of goal orientation would have indirect effects on

transfer of training (i.e., the use of skills acquired in training upon return to the job environment), but that they would operate through different mechanisms. Specifically, they suggested that performance orientation would affect training performance, which would then influence transfer. Although the latter part of this notion was correct, the former was not confirmed: Performance orientation had no relationship with training performance. The authors also suggested that learning orientation would influence transfer of training by way of self efficacy: Learning orientation would be associated with positive self-efficacy, which would in turn increase the likelihood of transfer (Gist, Stevens, & Bavetta, 1991). This hypothesis was confirmed.

Tesluk, Dragoni, and Russell (2002) investigated the effects of goal orientation on managers' developmental experiences. They hypothesized that, because learning-oriented individuals tend to seek out challenging tasks in order to improve ability, these individuals would have more developmental work experiences. They also hypothesized that this relationship would be moderated by the accessibility of these developmental experiences; if opportunities were not available, even the most learning-oriented manager would not obtain a development experience. These hypotheses were confirmed.

Tesluk et al. (2002) found that learning-oriented individuals (as measured with a non-contextualized scale) were more likely to have development experiences than other individuals. Other research explains this conclusion. For example, employees with a learning orientation have been found to exert more effort than performance-oriented employees (Vandewalle et al., 1999). In addition, these people are more motivated to learn (Colquitt & Simmering, 1998) and seek out challenging opportunities (Dweck & Elliott, 1983). Finally, the fact that learning-oriented individuals see intelligence as able

to constantly increase indicates that these people would be more likely to pursue development opportunities. Therefore:

Hypothesis 1 (H1): Non-contextualized learning orientation will have a positive relationship to the pursuit of individual development experiences.

The research conducted by Tesluk and his colleagues found a relationship between non-contextualized learning orientation and the pursuit of development opportunities. It did not, however, investigate either individual-level performance orientation (contextualized or non-contextualized) or the effects of contextualized goal orientation on development opportunities. Research in both of these areas is needed. In the area of performance orientation, further research is necessary because many organizational employees espouse such an orientation and it is necessary to investigate what would motivate these individuals to pursue development opportunities. In the area of contextualized goal orientation, more research is necessary due to the Button et al. (1996) finding that a strong situation can influence an individual's goal orientation. If this is the case, it is naïve to assume that an individual with a learning orientation in one setting (e.g., Project A) would have the same orientation in another (Project B).

In the following sections, I advance hypotheses for individual-level performance-prove and performance-avoid orientation as well as contextualized goal orientation and their effects on the pursuit of development opportunities. Before I do so, however, it is necessary to examine goal orientation at the team level. I hypothesized that this climate variable has important implications for individual-level goal orientation, the beliefs of team members about the consequences of improving performance, and the pursuit of training and development opportunities.

Unit-Level Goal Orientation

The notion of environment has been an important one throughout the history of organizational research. For example, environment has been shown to be an important predictor of the development of self-efficacy (Gist & Mitchell, 1992; Mathieu & Martineau, 1993). An important environment variable is climate, defined as the perceptions that employees share of the practices, procedures, and behaviors that are rewarded, supported, and expected within a group or organization (Schneider, 1990, pg. 384). Research indicates that climate is associated with tangible individual- and group-level outcomes. For example, Schneider and his colleagues have repeatedly found a relationship between climate for customer service and customers' perceptions of service quality (Schneider & Bowen, 1985; Schneider, Wheeler, & Cox, 1992). In other words, organizations that reward, support, and expect customer service from their employees are perceived by their customers as superior service organizations. Later research indicated that this effect was moderated by the strength of climate; the relationship only existed if the organization had a strong climate for service (Schneider, Salvaggio, & Subirats, 2002). Likewise, climate for innovation has been associated with more qualitatively innovative behaviors at work (Bain, Mann, & Pirola, 2001). Similarly, Klein and her colleagues found a correlation between climate for implementation and consistent and skilled use of technology (Klein, Conn, & Sorra, 2001). Finally, safety climate has been found to be associated with increased safety behaviors, lower injury rates, fewer health problems, and fewer injuries (Mearns, Whitaker, & Flin, 2002; Zohar, 2003).

Environment has also played an important role in training studies. For example, Noe (1986) hypothesized that environmental favorability would be associated with both

motivation to learn and transfer of training (the application of trained behaviors once an employee returns to the job; Baldwin & Ford, 1988). In addition, numerous studies have found a relationship between a climate for transfer (characterized by a supportive environment in which transfer of training is rewarded, supported, and expected by supervisors, peers, and subordinates) and actual transfer (e.g., Bennett, Lehman, & Forst, 1999; Clark, Dobbins, & Ladd, 1993; Rouiller & Goldstein, 1993; Smith-Jentsch, Salas, & Brannick, 2001).

The importance of environment has been noted the goal orientation literature as well. In early research, Ames and Archer (1988) found that students who perceived a learning orientation to exist in their classrooms were more likely to use effective learning strategies, to choose more challenging tasks, to have a more positive attitude toward their class, and to hold a stronger belief that success is a result of effort. Students who perceived a performance-oriented classroom environment were more likely to focus on their ability and more likely to attribute any failures to a lack of ability. Ryan, Gheen, and Midgley (1998) researched the presence of a classroom goal structure, hypothesizing that a task-focused goal structure (what would be called a learning orientation structure in this paper) communicates to students that the most important aspects of school are learning and improvement, while a relative-ability goal structure indicates to children that demonstrating ability is the most important function of the classroom. The authors found that students who perceived their classrooms to be task-focused were less likely to avoid asking for help, while those who perceived their classrooms to be relative-ability focused were more likely to avoid asking for help.

More recently, Bunderson and his colleagues (c.f., Bunderson & Sutcliffe, 2002; Bunderson & Sutcliffe, 2003) have advanced the notion of a team goal orientation, defined as "a shared understanding of the extent to which a team emphasizes learning or performance goals, [which] helps to facilitate group decision making, collaborative problem solving, and intragroup coordination that maintain the group's emphasis on learning or performance goals" (pg. 553). Focusing primarily on a team learning orientation (rather than a team performance orientation), the researchers propose that, although this type of environment can often be a good thing that leads to increased adaptability and therefore effectiveness (Kozlowski, Gully, Nason, & Smith, 1999), a team learning orientation can also be detrimental if it overemphasizes learning at the expense of attention to existing initiatives (Levinthal & March, 1993). Bunderson and Sutcliffe (2003) therefore proposed a curvilinear relationship between team learning orientation and unit level performance, such that performance is highest when team learning orientation is at a medium level. This hypothesis was confirmed.

In this study, I hypothesize that team learning orientation would be positively related to the pursuit of development opportunities. Team learning orientation is a climate variable, meaning that it affects how employees perceive what is desired, rewarded, supported, and emphasized in their work groups (Ames, 1992; Schneider, 1983). If individuals perceive that continuous improvement is an important behavior to their work groups, they will be more likely to engage in such behaviors. Therefore:

Hypothesis 2 (H2): Team learning orientation will have a direct and positive

effect on the pursuit of training and development opportunities, such that teams

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with a high learning orientation will have higher mean levels of development

experiences than those without such an orientation.

Although Bunderson and Sutcliffe (2003) primarily investigated team learning

orientation, they acknowledged that team performance orientations (performance-prove

and performance-avoid) also exist. In the current study, I expanded on Bunderson and

Sutcliffe's research by investigating these other variables as well.

Team goal orientation should have a positive relationship to the goal orientations

of the individuals on the team. There are two possible reasons for this relationship, one

of which deals with non-contextualized goal orientations, the other of which deals with

contextualized goal orientation. First, research in the area of socialization indicates that

as individuals gain experience with a team, their values become more consistent with

those of other team members (e.g., Jung & Sosik, 2003). As I discussed earlier, Button

and his colleagues (1996) maintain that an individual's contextualized goal orientation

can be influenced by a particularly strong situation; due to substantial interactions and a

possible desire to fit in, a team goal orientation can be considered a strong situation.

Therefore, team goal orientation should relate to individual contextualized goal

orientation.

The other reason why team goal orientation should be related to individual-level

goal orientation stems from Schneider's (1987) research on the attraction-selection-

attrition (ASA) model. According to Schneider, individuals are attracted to teams whose

values and behaviors are consistent with their own values and behaviors. Teams are also

attracted to individuals whose values and behaviors are consistent with their own, and are

more likely to select these individuals than those whose values and behaviors are not

consistent with team values and behaviors. Finally, individuals whose values and behaviors are not consistent with those of the team tend to leave the team (attrit), either by their own choice or that of the team, thereby leaving a team that is made up of similar individuals. This reasoning takes a trait perspective, assuming that attraction, selection, and attrition are determined by the relatively stable values and behaviors of both the individual and the team.

Based on both socialization theory and ASA theory, then:

Hypothesis 3 (H3): There will be a direct and positive relationship between team learning orientation and individual contextualized learning orientation.

Hypothesis 4 (H4): There will be a direct and positive relationship between team learning orientation and individual non-contextualized learning orientation.

Hypothesis 5 (H5): There will be a direct and positive relationship between team performance-prove orientation and individual contextualized performance-prove orientation.

Hypothesis 6 (H6): There will be a direct and positive relationship between team performance-prove orientation and individual non-contextualized performance-prove orientation.

Hypothesis 7 (H7): There will be a direct and positive relationship between team performance-avoid orientation and individual contextualized performance-avoid orientation.

Hypothesis 8 (H8): There will be a direct and positive relationship between team performance-avoid orientation and individual non-contextualized performance-avoid orientation.

I anticipated that team goal orientation would have an effect on other individual-level variables as well, as we will see in the following section, where I hypothesized that team goal orientation influences how individuals on the team perceive the relationship between performance and rewards and punishment.

<u>Contextualized Goal Orientation, Non-Contextualized Goal Orientation, and Development</u>

Several authors have suggested that stable (non-contextualized) individual difference variables affect motivation and performance through their effects on situationally-variable (contextualized) individual difference variables (e.g., Austin & Klein, 1996; Kanfer, 1990a, 1992). These authors reason that non-contextualized variables are too distal to have a direct effect on motivation and performance; instead, these effects are mediated by contextualized variables. Research has confirmed that contextualized variables do indeed mediate the relationship between non-contextualized variables and motivation and performance. For example, cognitive ability is related to performance, but this relationship is at least partially mediated by situation-specific self-efficacy (Austin & Klein, 1996; Casper, Chen, & Cortina, 1999; Phillips & Gully, 1997). In addition, general self-efficacy influences performance, but only through its relationship with situation-specific self-efficacy (Chen, Gully, Whiteman, & Kilcullen, 2000). A recent meta-analysis confirmed these findings with respect to goal orientation: state (contextualized) goal orientation mediated the relationship between trait (non-contextualized) goal orientation and various outcomes, including learning and performance (Payne, Youngcourt, & Beaubien, 2007). Based on the belief that distal

variables affect motivation and performance only through their effects on proximal

variables, I argue that:

> Hypothesis 9 (H9): Contextualized learning orientation will mediate the
>
> relationship between non-contextualized learning orientation and the pursuit of
>
> training and development experiences.
>
> Hypothesis 10 (H10): Contextualized performance-avoid orientation will mediate
>
> the negative relationship between non-contextualized performance-avoid
>
> orientation and the pursuit of training and development experiences.

While the positive relationship between individual-level learning orientation and

development, and the negative relationship between individual-level performance-avoid

orientation and development, have been established, the relationship between

performance-prove orientation and development is not clear. I therefore do not have

hypotheses dealing with this relationship. However, the relationship will be explored in

my analyses.

Goal Orientation and VIE Theory

VIE theory (Vroom, 1964) posits that an individual's behavior occurs based on

decision-making models that take into account three factors. The first factor, valence, is

the inclination or affective response that the individual has for the outcome. The second

factor, expectancy, is the individual's beliefs about whether the action being considered

will lead to that particular outcome. Finally, instrumentality refers to the individual's

perception of the association between primary and secondary outcomes. VIE theory

assumes that individuals making a decision consciously review their valences,

instrumentalities, and expectancies and act in a subjectively optimal manner once these

factors have been considered. In other words, a decision is thought to be a function of the product obtained by multiplying valence, instrumentality, and expectancy.

After initial excitement about VIE theory, the idea soon fell out of favor among researchers because of the advanced mental calculations that it implies. Although simple mathematics can be conducted in about 200 milliseconds, more advanced calculations (such as the type of multiplication that VIE implies) takes about 2000 milliseconds for the average individual. If a person is deciding among 10 alternatives which in turn map to 10 first-level and 10 second-level outcomes, this calculation could take several hours (Lord, Hanges, & Godfrey, 2003)! Even the founder of the theory itself noted that "the level of processing required by expectancy theory is rarely possible and would represent one extreme, found mainly on relatively simple choice problems where the alternatives are clear and the information is readily available" (Vroom, 1995, pg. xix).

Lord et al. (2003) argue that these in-depth calculations may not in fact be required in order for the assumptions of VIE theory to remain tenable. Specifically, the authors cite research on neural networks, which indicates that when two or more "nodes" (i.e., variables or ideas) are activated together on a consistent basis, the human brain learns the associations between these nodes (Hebb, 1949). If nodes are activated together enough times, the processing can become automatic (Bechtel & Abrahamsen, 1991). Lord and his colleagues (2003) suggest that the products of various valences, instrumentalities, and expectancies in VIE theory can be computed in virtually no time, provided that the individual making the decision has had prior experience with these variables. Based on the arguments of Lord et al. (2003), I maintain that the assumptions

of VIE theory are indeed tenable and therefore will use this theory in the proposed research.

VIE theory has been applied to a wide variety of organizational contexts, including leadership (e.g., House, 1971), compensation (e.g., Lawler, 1971), and turnover (e.g., Summers & Hendrix, 1991). It has also been applied to research regarding the motivation to learn in training courses. In a theoretical paper focusing on learning motivation, Farr and Middlebrooks (1990) suggested that motivation to learn once in a training course is determined by three considerations: (a) expectancy, or the belief that expending effort to learn will result in increased knowledge or performance, (b) instrumentality, or the belief that that knowledge or performance will lead to rewards (e.g., pay raise, promotion, etc.), and (c) valence, or the desire for those rewards. Because these factors are combined in a multiplicative fashion, if any of their values is zero, the individual will not be motivated to learn. The VIE theory as it applies to learning is an underpinning of much empirical research on the motivation to learn; specifically, any study that assumes that an individual's belief that learning leads to performance, which in turn leads to valued outcomes is operating from a VIE standpoint (Mathieu, Tannenbaum, & Salas, 1992).

There is reason to believe that valence and instrumentality mediate the relationship between contextualized goal orientation and individual development. While previous research has not investigated these variables together, evidence supports a link between individual-level goal orientation and cognitions. For example, Dweck and her colleagues suggested that individuals with a performance orientation value outcomes because they are indicative of skill or ability; individuals with a learning orientation, on

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the other hand, perceive outcomes as an opportunity to learn how to do things differently in the future (Dweck & Leggett, 1988). In addition, individuals with a performance orientation devalue effort because they think that it suggests a lack of ability; only people with low ability need to exert effort. In contrast, learning-oriented individuals see a positive relationship between effort and ability, believing that effort leads to greater ability (Dweck & Leggett, 1988).

Further, numerous studies (e.g., Phillips & Gully, 1997; Winters & Latham, 1996) have found positive relationships between learning orientation and self-efficacy, and negative relationships between performance orientation and self-efficacy. Additionally, Fisher and Ford (1998) discovered that learning orientation (conceptualized as mastery orientation in this case) was significantly and positively related to mental workload (i.e., the amount of work taken on), while performance orientation had no such relationship. Goal orientation has also been found to influence the amount of motivation an individual has to learn new material. For example, Colquitt and Simmering (1998) found that learning orientation has a positive relationship with the expectancy-valence product (i.e., the belief that effort leads to learning and that valued outcomes can be attained through increased knowledge), which in turn had a positive relationship with motivation to learn. The relationship between performance orientation and these variables was the opposite. Several studies have found relationships between performance orientation and distraction. Button et al. (1996) found a significant correlation between performance goal orientation and obtrusive thoughts, and Fisher and Ford (1998) found a positive relationship between performance orientation and off-task attention. Finally, a recent study found a positive

relationship between learning orientation and self-regulatory processes (enhanced focus, higher self efficacy; Kozlowski & Bell, 2006). Therefore:

Hypothesis 11 (H11): Valence and instrumentality will mediate the relationship between contextualized learning orientation and development.

Hypothesis 12 (H12): Valence and instrumentality will mediate the relationship between contextualized performance-avoid orientation and development.

Again, the relationship between performance-prove orientation and development is unclear, so no hypotheses will be advanced. This relationship will be explored as part of this study.

Is is important to note that different valences and instrumentalities will be measured depending on the type of goal orientation examined. For example, learning-oriented individuals are motivated by learning more; valence and instrumentality, therefore, are all about intrinsic rewards. Performance-prove oriented individuals, however, are motivated by proving their competence to others; valence and instrumentality, therefore, are about extrinsic rewards like increased pay and promotion. Lastly, performance-avoid oriented individuals are motivated by avoiding punishment; their valences and instrumentalities surround the avoidance of negative outcomes.

The literature presented in the previous sections provides evidence for the effects of both individual and team-level goal orientation on the pursuit of development opportunities. The hypotheses, which can be seen in Figure 1, 2, and 3, will be tested using a sample of employees from many groups within one organization. Before discussing the methods by which this model will be tested, it is necessary to address the types of development that will be investigated in this research.

Method

<u>Participants</u>

       Participants were employees of a large, multinational consumer package goods company. The company consisted of over 22,000 employees in hundreds of work groups. However, to minimize any complications that may arise if data were collected cross-culturally, only employees in the company's headquarters were surveyed. A total of 70 teams, consisting of one manager and an average of 5.53 employees, were surveyed. Thus, the total number of people who participated in this study was 457 (i.e., 387 employees and 70 managers).

       Participants came from nearly every function in the headquarters organization (i.e., Information Technology, Human Resources, Sales, Finance, Research and Development, Supply Chain, Engineering, Public Affairs, Customer/Consumer Insights). However, 51 of the 70 teams (72.9%) came from the technical analytical functional units (i.e., Information Technology, Research and Development, Engineering, Customer/Consumer Insights). Participants ranged in age from 22 to 63, with a mean age of 40.5. The vast majority (95%) of participants were full-time employees, and they came from a variety of levels in the organization, from entry-level individual contributors (14.3%) to directors and vice presidents (8.4%). However, most participants (77.3%) were mid-level individual contributors or low-level managers. Participants also demonstrated a range in tenure, from less than one year (7.3%) to more than ten years (45.5%). Because diversity is a sensitive issue in this organization, information about ethnicity and gender was not collected.

<u>Procedure</u>

Participation in this study was offered to employees throughout headquarters. I asked my colleagues in the HR function to nominate teams in their client groups who (a) would represent a cross-section of the organization in terms of climate for development, and (b) might be interested in participating in the research. After receiving nominations, I contacted the team managers to ask whether they would be interested. If they agreed (as most did), I attended one of their staff meetings to explain the research, its rationale, and the benefits of participating. In several cases, managers and/or team members were so enthusiastic about the research that they suggested other teams who might want to participate.

In teams whose managers signed up for the study, individual team member participation was voluntary (i.e., individual team members who did not wish to participate were not obligated to do so). To increase the participation rate, all employees who completed a survey were entered into a raffle for various prizes (e.g., $100 cash prize, $50 gift certificate to a local restaurant, $25 gift certificate to the company store). Additionally, teams were informed that I would share my findings with them after the study was complete. Further, I indicated that I would also provide specific suggestions for improving their team climate.

All surveys were completed on-line. Team members completed two surveys three months apart. The first survey asked about their individual goal orientation, the team goal orientation, and basic demographics, while the second survey asked about the development activities that the participant undertook in the past twelve months.

Managers only completed one survey, and it was administered at Time 2. This survey

asked managers about the development activities of each individual team member.

<u>Measures</u>

Individual learning orientation was measured using two scales: individual non-

contextualized learning orientation and individual contextualized learning orientation.

The individual non-contextualized learning orientation scale measured the stable nature

of this construct. The individual contextualized learning orientation scale measured its

situationally determined (i.e., contextualized) aspect. The former was an 8-item measure

based on Button et al.'s (1996) work (see Appendix A). Participants responded to each

item using a 7-point scale. In previous research, this scale has been found to be internally

consistent (Cronbach's alpha >.80; Button et al., 1996) and predictive of such variables as

the pursuit of challenging activities and the exertion of effort in the face of difficulty.

The contextualized learning orientation scale was a 5-item scale adopted from

VandeWalle (1997). Previous research has found it to be internally consistent

(Cronbach's alpha =.89; VandeWalle, 1997) and related to other variables, such as fear of

negative evaluation (Leary, 1983; negatively related), implicit theory of intelligence

(Hong & Dweck, 1992; negatively related), and feedback-seeking behavior. This 6-point

scale can be found in Appendix B.

Individual performance orientation was also measured using two scales (one non-

contextualized and one contextualized scale). The 10-item individual non-contextualized

performance orientation scale was based on research by Button et al. (1996).

Unfortunately, the original version of this scale did not separate performance orientation

into performance-avoid and performance-prove orientations. I therefore split the Button

et al. scale into two subscales and added three additional items to the individual non-contextualized performance-avoid scale. The original Button et al. scale was reported to have high internal consistency reliability (i.e., Cronbach's alpha = .68, .77, and .81 in three separate studies) and has been shown to correlate positively with interfering thoughts (Sarason, Sarason, Keefe, Hayes, & Shearin, 1986). Respondents answered each question using a 7-point scales and the scale can be found in Appendix C.

The individual contextualized performance orientation scales were taken from VandeWalle (1997). The performance-prove scale consists of four items and has been found to have substantial internal consistency reliability (Alpha >.88). The performance-avoid scale was also measured with four items and prior research has shown that it has substantial internal consistency (Alpha =.88). Previous research shows that these scales relate in meaningful ways to other variables, such as fear of negative evaluation (Leary, 1983; positively related) and feedback seeking (negatively related). Participants responded by using a 6-point scale and these items can be found in Appendix D.

Instrumentality is the belief that improved job performance leads to secondary outcomes. This variable was measured using items based on the work of James and his colleagues (1977). Questions asked about the perceived relationship between improved performance and 16 outcomes. The outcomes were categorized into "intrinsic" and "extrinsic" outcomes. I omitted several items from the original measure because James et al. (1977) reported that these items did not load on either the intrinsic or extrinsic scale. In addition, I added several items measuring the avoidance of negative outcomes (e.g., avoiding losing one's job) to increase the conceptual domain of rewards evaluated by this

measure.   Participants responded using a 7-point Likert scale. These items can be found in Appendix E.

Valence refers to participant's judgment about the desirability/undesirability of each of the 16 outcomes included in the instrumentality measure. Valence questions were rated on a 5-point Likert scale ranging from very undesirable to very desirable. Instrumentality items can be found in Appendix E.

Team learning orientation climate was measured using the scale developed by Bunderson and Sutcliffe (2003), which was based on VandeWalle (1997). The 7-point Likert scale measured the extent to which employees perceive it is important that their teams (a) seek opportunities to develop, (b) enjoy challenging assignments in which new skills can be learned, (c) are willing to take risks on new ideas, (d) enjoy working on tasks that take substantial amounts of skill or ability, and (e) view learning/development opportunities as valuable. Previous work found this scale to have substantial levels of internal consistency (Cronbach's alpha =.95).

I developed team performance-prove and team performance-avoid climate scales because the Bunderson and Sutcliffe (2003) scale only measured the team climate for learning orientation. I based my scale on the work of VandeWalle (1997). A total of 6 team performance-prove and 6 number of team performance-avoid climate items were developed. These items can be found in Appendix F.

Training activities were measured by asking both respondents and managers three questions regarding any voluntary nontechnical training courses taken during the previous year. Specifically, both employees and their managers were asked to report the number of in-class training courses the employees had taken in the past year, as well as

the amount of time spent in in-class training in the past year. Second, they were asked to report approximately how much money was spent on in-class training in the past year. Finally, both employees and their managers were also asked how many on-line training courses employees had taken in the past year and how many hours they had spent in these courses. The training activities questions can be found in Appendix G[2].

Developmental activities were assessed using a 12-item scale based on Tesluk et al.'s (2002) and McCauley et al.'s (1994) research. The Tesluk et al scale consisted of five main types of development experiences: *unfamiliar responsibilities* (i.e., tasks that the employee has not tried before); *high level of responsibility* (i.e., experiences in which responsibilities are broadened or work is highly visible to the organization's leadership); *creating change* (i.e., activities such as taking a department in a new direction), *implementing a new process* (i.e., reorganizing the structure of a team); *managing interfaces* (influencing others); and *managing diversity* (embracing differences in age, ethnicity, values, etc). I removed several items from the original 55-item scale due to space limitations. Specifically, I omitted questions concerning management activities since the focus of this study was on employee level efforts. Further, I eliminated items concerning "celebrating diversity" due to the strong organizational climate for diversity in this company. The strong organizational climate would have minimized individual level variability on these items. In summary, I dropped these diversity items so that the scale had items that were influenced by both individual and team factors. The revised scale can be found in Appendix H.

Before conducting any hypothesis tests, I explored the psychometric properties of my scales. This included conducting factor analyses and computing internal consistency estimates to determine the dimensionality and reliability of my scales. Further, within group agreement statistics (i.e., ICC_1s and R_{wg}) were computed to ensure that the team goal-orientation climate scales could be aggregated to the team level of analysis.

My hypotheses were tested using hierarchical linear modeling (HLM). This was necessary since my data had a nested structure (i.e., several respondents came from the same team) and due to the fact that my hypotheses were specifically targeted at either individual or team level concepts.

Results

In this section I first discuss the psychometric properties of my scales. This includes factor and reliability analyses. I will also determine the aggregatability of my team climate scales. After reporting these psychometric properties, I then discuss the results of my hypothesis testing.

Psychometric Properties

Team Goal Orientation Climate

As indicated previously, within-group agreement for the three team goal orientation constructs was assessed by computing the ICC_1s and r_{wg}s. The results of these analyses are shown in Table 1. As can be seen from this table, the average r_{wg}s were acceptable. This suggests sufficient agreement for aggregation. Additionally, the scale-level ICC(1)s were sufficient (team learning orientation $ICC_1 = .11$, team performance-prove orientation $ICC_1 = .19$, team performance-avoid orientation $ICC_1 =$

.13, team combined performance orientation $ICC_1 = .18$). However, a slightly different story was observed when I examined the ICC(1) results at the item level. While the majority of the items had significant ICC(1) values (and thus had evidence for aggregation), a few items did not have a significant ICC(1). Specifically, item 3 of the team learning orientation climate scale did not have a statistically significant ICC(1). Further, items 1 and 6 of the team performance-prove climate scale and items 1 and 6 of the performance-avoid climate scale did not have significant ICC(1) values. Thus, using the ICC(1) test for aggregation, these items do not have support for aggregation. I therefore eliminated these items from further analyses.

Next, I examined the dimensionality of these items by conducting a group-level principal components exploratory factor analysis with varimax rotation with the retained items from these three scales. Using the Kiser (1960) rule (i.e., keeping only those factors with eigenvalues greater than 1), a three-factor solution accounted for 68.74% of the variance of the original items. Table 2 shows the estimated factor loadings for these items. As can be seen from this table, one of the team performance-prove climate items (Item 2) dual loaded on both the team learning orientation climate factor as well as the team performance-prove climate factor. I therefore dropped this item from further analyses.

This factor analysis also revealed that all but one of the team performance-avoid and team performance-prove climate items loaded on a common factor. The third extracted factor was comprised of just a single cleanly loading item. I could not determine why this item ("There are negative consequences for team members who display incompetence") did not load on the same factor as the other team performance

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orientation climate items. In summary, it appears that team learning orientation climate is a separate dimension. However, it is unclear whether team performance orientation climate is comprised of a single or two-dimensions.

To further explore this issue, I conducted internal consistency analyses. While it is recognized that internal consistency cannot be used to assess dimensionality (Nunnally & Bernstein, 1994), I used this analysis to determine the reliability of the combined and separate team performance orientation climate scales. The team performance-prove and team performance-avoid scales both showed adequate internal consistency (Cronbach alpha's = .83 and .74, respectively). However, when these two scales were combined, as suggested by the factor analysis, into a single scale, the combined version showed an increase in internal consistency (Cronbach's alpha = .87). While this is to be expected given that the combined scale had more items than the two separate scales, it will not always occur. Specifically, combining scales measuring different constructs will lower the average intercorrelation and thus lower the internal consistency estimates (Nunnally & Bernstein, 1994). Once again, these results appear to suggest that a single team performance orientation climate scale might be sufficient. However, because the empirical literature is unclear regarding the dimensionality of the performance orientation construct and because my original hypotheses separated the team performance orientation climate into two factors, I ran my hypothesis tests two ways. In the hypotheses results section I report the results of tests using the two separate team performance orientation climate scales. I report the results of the combined team performance orientation scale in the post-hoc section of the results.

In summary, although the three team goal orientation scales were highly

correlated (Table 8) , further analyses indicate that at least two scales (team learning

orientation climate and team performance orientation climate) are present. It is unclear

whether team performance orientation climate is one construct or two (team

performance-prove climate and team performance-avoid climate).

Confirmatory Factor Analyses: Individual Goal Orientation Scales

 Previous research indicated that both individual level non-contextualized and

contextualized goal orientation can be separated into individual learning orientation,

individual performance-prove orientation and individual performance-avoid orientation.

I conducted a confirmatory factor analysis to determine whether this structure was

supported in my data.

Individual level non-contextualized goal orientation

The initial CFA for individual non-contextualized goal orientation indicated

moderate fit for the three-factor solution, $\chi2 = 431.07$ (df = 132; $\chi2/df = 3.27$), $p < .001$,

with a CFI = .86 and a RMSEA = .09. I reran the analysis by removing items with factor

loadings less than 0.5. This new CFA yielded an improved fit ($\chi2$ (87)= 282.89, $p < .001$;

$\chi2/df = 3.25$, CFI = .89, RMSEA = .09). However, further examination of this CFA

revealed that the individual performance-prove and individual performance-avoid scales

were highly correlated (r=.90). These results strongly suggested that these two constructs

may not be separable. I therefore ran a third CFA in which I imposed a two-factor

solution. While the fit of this new model was also acceptable, ($\chi^2(89) = 290.06$, $p < .001$;

$\chi2/df = 3.26$,; CFI = .89 ; RMSEA = .09), a comparison of the AIC indices for the two

factor and three factor models revealed that the fit of the two and three factors models

were approximately equivalent (AIC for two factor model = 11578.87; AIC for the three

factor model = 11575.70), although the three factor model had a slightly better AIC. For

the two factor model, the individual non-contextualized learning orientation factor was

unrelated to the individual non-contextualized performance orientation factor (r=.02).

Given that these individual-level results were similar to the results for the team climate

measures, I decided to follow the same procedure and report the results for the three

scales first and then report the results for the two factor solution in the post-hoc section of

this dissertation.

Individual level contextualized goal orientation

The CFA for individual contextualized goal orientation indicated good fit for the

three-factor solution, $\chi2 = 124.55$ (df = 62; $\chi2/df = 2.01$), $p < .001$, with a CFI = .97 and a

RMSEA = .06. In this analysis, the individual contextualized performance-prove and

individual contextualized performance-avoid factors were not highly correlated (r=.5),

indicating that a three-factor model could be used for further analyses.

Factor Analyses: Instrumentality and Valence

Similar to the individual-level goal orientation scales, this study operates under

the assumption that the instrumentality and valence scales are comprised of three factors:

Learning, performance-prove, and performance-avoid orientations. I conducted a series

of factor analyses to ensure that this was the case. For instrumentality, as expected, a

factor analysis indicated that three factors (learn, performance-prove, and performance-

avoid) were present (see Table 3). Reliability of the overall scale was high (Cronbach's

Alpha=.86), as were reliability of the individual subscales (Cronbach's Alpha for learning

orientation =.81; Cronbach's Alpha for performance-prove orientation = .88; Cronbach's Alpha for performance-avoid orientation = .81).

Similar results were found for the valence scale. A factor analysis indicated the presence of three factors (see Table 4), and reliability of the overall scale (Cronbach's Alpha = .83), as well as the individual subscales (Cronbach's Alpha for learning orientation =.80; Cronbach's Alpha for performance-prove orientation = .79; Cronbach's Alpha for performance-avoid orientation = .85), were high.

Factor Analysis: Development Opportunities

In this study, the dependent variable, the pursuit of development opportunities, was gathered from both employees and their managers. Before combining these into one measure, I conducted an exploratory principal components analysis with a varimax rotation. The analysis indicated that a two factor model (i.e., self-reported development and manager-reported development) was the best fitting model. The results of this factor analysis can be seen in Table 6. Both scales demonstrated strong validity, with a Cronbach's Alpha of .82 for the self-report development scale, and a Cronbach's Alpha of .89 for the manager-report development scale.

Hypothesis Tests

To aid the reader's understanding of my results, I have developed a table and figures that restate the hypothesized relationships and the obtained empirical support for each hypothesis. Specifically, Table 6 contains a restatement of each hypothesis as well as information regarding empirical support. Figures 1-3 depict the learning, performance-prove, and performance-avoid models (respectively), while Figures 5-7 depict revised models based on which hypotheses were confirmed. Thus, these figures

provide a pictorial representation of the summary information provided in Table 6. Both the table and figures should aid the reader's comprehension of the following empirical results.

Tables 7 and 8 illustrate the correlations between the individual-level variables and the group-level variables, respectively.

Learning Orientation Model

Hypothesis 1 predicted that individual non-contextualized learning orientation would have a positive relationship with the pursuit of individual development experiences. To test this hypothesis, a fixed effects HLM model was conducted. Contrary to this hypothesis, individual non-contextualized learning orientation did not predict individual development experiences when rated by the manager (R^2between = -0.16, $\gamma = 0.13$, $t(47) = -1.28$, $p > .05$), nor when rated by the employee (R^2between = 0.20, $\gamma = 0.18$, $t(47) = 1.11$, $p > .05$). Thus, this hypothesis was not supported.

Hypothesis 9 predicted that individual contextualized learning orientation would mediate the relationship between non-contextualized learning orientation and the pursuit of training/development experiences. Unfortunately, this hypothesis assumed that Hypothesis 1 would be supported. Given that no relationship was found, Hypothesis 9 was not supported.

Hypothesis 2 predicted that team learning orientation climate would have a direct and positive effect on the pursuit of development opportunities at the team level. Because both of these variables are at the team level, a regression analysis was sufficient to test this hypothesis. The hypothesis was not confirmed, regardless of whether

development was measured with manager input ($F(40) = 1.85$, $p>.05$) or the employee's input ($F(47) = 2.35$, $p>.05$).

Hypothesis 3 predicted a direct and positive relationship between team learning orientation climate and individual contextualized learning orientation. Consistent with this hypothesis, there was a positive relationship between team learning orientation climate and individual contextualized learning orientation ($R^2_{between} = 0.44$, $\gamma = 0.08$, $t(47) = 5.58$, $p<.05$). In other words, teams with a stronger learning orientation climate were comprised of individuals who were more oriented to learning.

Hypothesis 4 predicted a positive relationship between team learning orientation climate and individual non-contextualized learning orientation. This hypothesis was also confirmed ($R^2_{between} = 0.13$, $\gamma = 0.06$, $t(46) = 2.21$, $p<.05$). Teams with stronger learning orientation climates were more likely to be composed of individuals with greater levels of non-contextualized learning orientation.

Finally, Hypothesis 11 predicted that team valence and instrumentality would mediate the relationship between contextualized learning orientation and individual development. This hypothesis was partially confirmed. When development was measured from the manager's perspective, the significant relationship between contextualized learning orientation and development ($R^2_{between} = 0.10$, $\gamma = 0.05$, $t(47) = 2.19$, $p<.05$) disappeared when valence and instrumentality were added to the analysis ($R^2_{between} = 0.11$, $\gamma = 0.07$, $t(47) = 1.45$, $p>.05$). When development was measured using the employee's input, the hypothesis was not confirmed: Although contextualized learning orientation did have an effect on development ($R^2_{between} = 0.44$, $\gamma = 0.08$, $t(47) =$

5.56, p<.05), this effect remained significant when valence and instrumentality were added to the analysis ($R^2_{between}$ = 0.37, γ = 0.07, t(47) = 5.32, p<.05).

It should be noted that contextualized learning orientation demonstrated significant relationships with both valence ($R^2_{between}$ = 0.19, γ = 0.03, t(47) = 6.67, p<.05) and instrumentality ($R^2_{between}$ = 0.20, γ = 0.04, t(47) = 5.51, p<.05).

Performance-Avoid Orientation Model

Hypothesis 10 predicted that individual contextualized performance-avoid orientation would mediate the relationship between individual non-contextualized performance-avoid orientation and development. Using the management rating of development, there was a significant relationship between individual non-contextualized performance-avoid orientation and development ($R2between$ = -0.17, γ = 0.08, t(47) = -2.13, p<.05). Unfortunately, the mediational hypothesis was not supported because this relationship remained significant after the mediator (individual contextualized performance-avoid orientation) was added to the model ($R2between$ = -0.20, γ = 0.10, t(47) = -2.04, p<.05) and the mediator (individual contextualized performance-avoid orientation) was not significantly related to managerial ratings of development ($R2between$ = -0.08, γ = 0.06, t(47) = -1.30, p>.05). Thus, while individuals with a stable orientation for performance-avoid were less likely to seek out development opportunities (using the managerial ratings), this was not due to a change of their contextualized performance-avoid orientation.

This hypothesis was also not confirmed when the employee ratings of development were used. The relationship between non-contextualized performance-avoid orientation and development was non-significant ($R^2_{between}$ = -0.12, γ = 0.09, t(47)

= -1.42, p>.05) . Thus, there was no need to test for mediation. There was, however, a trend toward a relationship between contextualized performance-avoid orientation and development ($R^2_{between} = $ -0.12, $\gamma = 0.06$, t(47) = -1.93, p<.10).

Hypothesis 7 predicted that team performance-avoid orientation climate would be positively related to individual contextualized performance-avoid orientation. This hypothesis was not supported ($R^2_{between} = $ 0.12, $\gamma = 0.09$, t(46) = 1.38, p>.05). It does not appear that team climate for performance-avoid orientation affected team members' contextualized level of performance-avoid orientation.

Hypothesis 8 predicted a positive relationship between team performance-avoid climate and individual non-contextualized performance-avoid orientation; this hypothesis was also not supported ($R^2_{between} = $ 0.08, $\gamma = 0.09$, t(46) = 0.90, p>.05). It does not appear that teams with a climate for performance-avoid orientation are made up of individuals with a predisposition toward performance-avoidance.

Finally, Hypothesis 12 predicted that valence and instrumentality would mediate the relationship between contextualized performance-avoid orientation and development. When development was measured using manager input, there was no relationship between conceptualized performance-avoid orientation and development ($R^2_{between} = $ -0.08, $\gamma = 0.06$, t(47) = -1.38, p>.05); therefore, there was no need to test for mediation. When development was measured using employee input, however, the relationship between contextualized performance-avoid orientation and development showed a trend toward significance ($R^2_{between} = $ -0.12, $\gamma = 0.07$, t(47) = -1.72, p<.10). However, this relationship did not disappear once valence and instrumentality were added to the analysis ($R^2_{between} = $ -0.15, $\gamma = 0.06$, t(47) = -2.35, p<.05). Therefore, Hypothesis 12 was

not confirmed. It should be noted, however, that there was a relationship between contextualized performance-avoid orientation and instrumentality ($R^2_{between}$ = 0.12, γ = 0.04, t(47) = 2.68, p<.05).

Performance-Prove Orientation Model

Hypothesis 5 predicted a positive relationship between team performance-prove orientation climate and individual contextualized performance-prove orientation. This hypothesis was confirmed ($R^2_{between}$ = 0.21, γ = 0.10, t(46) = 2.07, p<.05). Individuals were more performance-prove oriented when they were in a team with a performance-prove climate.

Hypothesis 6 predicted a positive relationship between a team performance-prove climate and individual non-contextualized performance-prove orientation. This hypothesis was not supported ($R^2_{between}$ = 0.10, γ = 0.09, t(46) = 1.14, p>.05). It does not appear that performance-prove climate teams are more likely than non-performance-prove climate teams to be composed of individuals who have a stable performance-prove orientation.

The literature on the relationship between performance-prove orientation and development has been inconclusive, so no additional hypotheses were advanced for this construct. However, post-hoc tests found some interesting relationships. Specifically, I wanted to investigate whether individual contextualized performance-prove orientation would mediate the relationship between individual non-contextualized performance-prove orientation and development. Using the managerial ratings of development, a significant relationship between individual non-contextualized performance-prove orientation and the pursuit of development was found ($R^2_{between}$ = -0.19, γ = 0.06, t(47) = -

2.93, p<.05). This relationship remained significant after individual contextualized

performance-prove orientation was added to the equation ($R^2_{between}$ = -0.17, γ = 0.07,

t(47) = -2.39, p<.05), indicating that no mediation occurred. Similar effects were not

found when employee ratings of development were used.

I also wanted to investigate whether valence and instrumentality would mediate

the relationship between contextualized performance-prove orientation and development.

The relationship between individual contextualized performance-prove orientation and

development was not significant for either manager ratings ($R^2_{between}$ = -0.02, γ = 0.06,

t(47) = -0.29, p>.05) or employee ratings of development ($R^2_{between}$ = 0.04, γ = 0.08, t(47)

= 0.51, p>.05). Interestingly, there was a significant relationship between team

performance-prove orientation and instrumentality ($R^2_{between}$ = 0.15, γ = 0.06, t(46) =

2.40, p<.05). Thus, it appears that team climate for performance-prove orientation did

not affect the attractiveness of the rewards. However, individuals in teams with a

performance-prove climate perceived stronger links between performance and these

extrinsic rewards.

Post-Hoc Analyses

As indicated previously, there has been some question in the literature regarding

the dimensionality of the performance orientation construct. While some researchers

maintain that performance orientation is a single construct, others assert that it can

actually be separated into two components. My factor analyses did not provide clear

support for either position. I therefore reran my analyses using a single composite

measure of performance orientation. The conceptual model showing this single

performance orientation construct is shown in Figure 4. Note that I was uncertain

whether the combined performance orientation model would be more similar to the performance-prove model or the performance-avoid model. The model showing the actual relationships that were confirmed is shown in Figure 8.

I first tested whether individual contextualized performance orientation mediated the "individual non-contextualized performance orientation - pursuit of learning/development opportunities" relationship. When the managerial development ratings were used, individual non-contextualized performance orientation was significantly related to development ($R^2_{between} = -0.23$, $\gamma = 0.09$, $t(47) = -2.64$, $p<.05$). However, once again, the mediational hypothesis was not supported because the non-contextualized performance orientation - development relationship was still significant ($R^2_{between} = -0.26$, $\gamma = 0.11$, $t(47) = -2.40$, $p<.05$) after adding individual contextualized performance orientation into the analysis.

When employee ratings of pursuit of development opportunities were used, the "individual non-contextualized performance orientation – learning/development" relationship was not significant ($R^2_{between} = -0.13$, $\gamma = 0.10$, $t(47) = -1.37$, $p>.05$). Thus, mediational analyses were not needed. Thus, while there were relationships between individual non-contextualized and contextualized performance orientation and development when managerial ratings of seeking development opportunities were used, no such relationship was found for the employee measure of development.

With regard to the relationship between team climate for performance-orientation and individual contextualized and non-contextualized performance orientation, I found similar results for the combined model as I reported for the two separate performance orientation scales. There was a significant relationship between team performance

orientation climate and individual contextualized performance orientation ($R^2_{between}$ = 0.20, γ = 0.10, $t(46)$ = 2.05, p<.05) but no significant relationship between team performance orientation climate and individual non-contextualized performance orientation ($R^2_{between}$ = 0.12, γ = 0.09, $t(46)$ = 1.30, p>.05).

Lastly, I wanted to investigate whether valence and instrumentality mediated the relationship between contextualized performance orientation and development. When manager ratings were used, there was a trend toward significance for the relationship between individual contextualized performance orientation and development ($R^2_{between}$ = -0.12, γ = 0.07, $t(47)$ = -1.72, p<.10); this relationship became nonsignificant when valence and instrumentality were added to the analysis ($R^2_{between}$ = -0.07, γ = 0.07, $t(47)$ = -0.95, p>.05), indicating a mediation. When employee ratings were used, individual contextualized performance orientation was not significantly related to pursuing development opportunities ($R^2_{between}$ = -0.04, γ = 0.09, $t(47)$ = -0.48, p>.05), indicating no need to test for mediation. It should be noted that contextualized performance orientation had a significant relationship with both valence ($R^2_{between}$ = 0.11, γ = 0.03, $t(47)$ = 3.83, p<.05) and instrumentality ($R^2_{between}$ = 0.15, γ = 0.05, $t(47)$ = 3.25, p<.05).

Discussion

The purpose of this study was to examine the relationship between team level goal orientation climate, individual level goal orientation, and the pursuit of development opportunities. Previous research indicated that learning-oriented individuals are more likely to pursue development opportunities whereas performance-oriented individuals are less likely to do so. The present study adds to this literature by examining goal

orientation at the team level of analysis. Specifically, I hypothesized that both team goal orientation and individual level goal orientation will influence a person's pursuit of learning/development opportunities. I also hypothesized that individual contextualized goal orientation is determined by not only by stable characteristics of the individual but also by the environment surrounding the individual. I also hypothesized that team goal orientation and individual non-contextualized goal orientation would be related. Theories such as ASA (Schneider, 1987) maintain that teams are comprised of similar individuals, and that the climate of the team takes on characteristics of the people who stay with the team. Lastly, I hypothesized that valence and instrumentality mediate the relationship between contextualized goal orientation and development. Before discussing overall conclusions regarding these hypotheses, I will review the results obtained for each of the three hypothesized models as well as those of the post hoc model.

Learning Orientation Model

The results for the learning orientation model were more consistent with my hypotheses than were the results of either of the other models. Most compelling was the strong evidence for team learning orientation climate as a valuable construct. For example, as suggested in Hypothesis 4, team learning orientation climate had a significant relationship with individual non-contextualized learning orientation. This finding supports the ASA model (Schneider, 1987) and suggests that this process is alive and well in current organizations. The ASA model would explain this finding by suggesting that learning-oriented individuals were selectively attracted to and selected by teams that had a similar climate for learning orientation. Employees who do not have

such a consistent orientation to the team climate should eventually leave, either by their own choice or by that of the organization.

Another interesting finding was that the relationship of team climate for learning orientation and pursuit of development opportunities (as rated by employees) was mediated by individual contextualized learning orientation. While this finding is consistent with the idea that climate makes certain states in a person, such as learning orientation, salient, I had not originally hypothesized a mediation effect. Rather, I thought that individual contextualized learning orientation would more likely mediate the individual non-contextualized learning orientation-learning/development relationship. This hypothesized relationship was not confirmed. In fact, contrary to my hypotheses and previous research, I found no evidence of a relationship between individual non-contextualized learning orientation and pursuit of development opportunities. Perhaps, at least in the case of learning orientation, the temporary, environment-affected construct is a better predictor of development than is the permanent non-contextualized construct. One possible explanation for these findings comes from research on strong vs. weak situations (e.g., Mischel, 1977), which suggests that personality traits are more likely to be expressed in weak situations than in strong situations because individuals perceive environmental cues and express behaviors accordingly. In fact, some situations are so strong that personality traits may be repressed in favor of other behaviors that are more consistent with the environment. Using this logic, it is possible that the work setting, especially a work setting where the individual's team has a strong climate for learning orientation, is such a strong environment that individual traits are not expressed; in more

ambiguous environments, non-contextualized learning orientation may have more of an effect on development.

Another possible explanation is that in most of the previous research on this subject, it was not clear whether learning orientation was a non-contextualized or a contextualized variable; in several studies, it appears to have been measured as both! It is possible, then, that studies finding a relationship between learning orientation and development were examining the contextualized, rather than the non-contextualized, form of this construct. If this were the case, it would be more consistent with research that finds that non-contextualized variables are too distal to have an effect on behaviors (Austin & Klein, 1996; Kanfer, 1990a, 1992).

A final interesting finding from the learning orientation model was that valence and instrumentality mediated the relationship between contextualized learning orientation and development (but only when measured using manager feedback). This is consistent with previous research indicating that goal orientation affects an individual's cognitions.

The results of the learning orientation hypotheses suggest that team climate for learning orientation is a valuable construct that should be further examined in future research. While some research about this construct has been recently conducted (Bunderson and Sutcliffe, 2002, 2003), future research should focus on both how such an orientation is developed, as well as some of the other outcomes of team learning orientation.

Performance-Avoid Orientation Model

Unlike the learning orientation model, the performance orientation models posited no direct relationship between non-contextualized performance orientation and pursuit of

learning/development opportunities. The lack of such a relationship was based on research indicating that trait variables have their effects on outcomes only through their relationship with other, more proximal variables (Austin & Klein, 1996; Kanfer, 1990a, 1992). Consistent with this research, I hypothesized that contextualized performance orientation would mediate the relationship between non-contextualized performance orientation and development. In the case of performance-avoid orientation, no such mediation was found. In fact, the only relationship between any type of performance-avoid orientation and development involved <u>non-contextualized</u>, not contextualized, orientation. In particular, I found a negative relationship, suggesting that individuals with a stable performance-avoid orientation are less likely to pursue development opportunities, presumably because they are more concerned with avoiding punishment than they are with developing their skills or enhancing their knowledge. A similar trend was found in both the performance-prove orientation model as well as in the post-hoc combined performance orientation model. For all three models, a direct and negative relationship between the non-contextualized construct and pursuit of learning/development opportunities were found. None of the models showed the contextualized construct mediating this relationship, and the contextualized construct had little or no effect on the pursuit of learning/development opportunities.

Why would the non-contextualized version of performance-avoid orientation be a better predictor of development than the contextualized version? One possibility is that when a non-contextualized performance-avoid orientation exists, it is so strong that it does not need to operate via another, more proximal, variable. In other words, a person with a stable performance-avoid orientation is unlikely to change, regardless of the

situation. Another possibility is that the original, two-dimensional conceptualization of goal orientation was more accurate than the three-dimensional version, and that performance-avoid orientation is a flawed or nonexistent construct. This latter argument, however, is not valid, as similar results were found in both the performance-prove and combined performance models.

Team climate for performance-avoid orientation was not related to individual non-contextualized performance-avoid orientation. Why wouldn't individuals with a performance-avoid orientation be attracted to, selected by, and more likely to stay with teams with similar orientations? Why wouldn't individuals without this orientation leave a team characterized by a performance-prove climate? One possibility is that both candidates and incumbents were on their best behavior during the selection process. Candidates with a performance-avoid orientation would be very unlikely to reveal this orientation since it is unlikely to lead to the attainment of a desired job. How many candidates would actually tell an interviewer, "All I really care about is avoiding punishment. Development doesn't mean much to me"? Similarly, teams with a performance-avoid climate know that one of the most frequently asked questions posed by interviewees concerns learning/development opportunities. It would be unlikely for these teams to admit, "We're not really into pursuing learning/development opportunities in this team. We're more concerned with staying out of trouble."

Contrary to my predictions, team performance-avoid orientation was not related to individual contextualized performance-avoid orientation. In fact, of the three hypothesized models and the one post-hoc model, the performance-avoid model was the only one that did not exhibit a relationship between team climate and contextualized goal

orientation. Additionally, contrary to my hypotheses, valence and instrumentality did not

mediate the relationship between contextualized performance-avoid orientation and

development. However, contextualized performance-avoid orientation did exhibit a

relationship with instrumentality (though not with valence). A similar finding occurred

in the performance-prove model. Why would contextualized performance orientation

predict instrumentality (the belief that increased performance leads to outcomes such as

avoiding punishment or receiving accolades) but not valence (the belief that these

outcomes are valuable)? One answer lies in face-saving motivation and social

desirability. Even though the surveys were completed anonymously, many participants

were hesitant about being asked their preferences and tendencies. Members of a team

characterized by a performance-avoid orientation may have felt that to acknowledge that

outcomes such as more money are desirable is politically incorrect. These same people

may not have a concern with agreeing that improved performance leads to more money

or fewer negative repercussions, especially if they rationalized that these are some of

many outcomes of development. In short, the relationship between team performance-

avoid orientation and valence may not exist because participants were concerned with

"saving face."

　　　As mentioned earlier in this paper, the three-dimensional nature of goal

orientation is still under investigation. However, based on the complete lack of results

associated with this model, I was even more inclined to test the combined performance

orientation model.

Performance-Prove Orientation Model

Only two relationships were hypothesized in the performance-prove orientation model. The first was that team performance-prove orientation predicts contextualized performance-prove orientation. This hypothesis was confirmed, and I attribute this result to the socialization of team members.

The second hypothesis in this model was that there would be a relationship between team climate for performance prove orientation and individual non-contextualized performance prove orientation; this hypothesis was not confirmed. As in the performance-avoid model, I attribute this lack of a relationship to the fact that interviewers and job candidates "put on a good face" in the interview process; if they have a performance-prove orientation, they do not share that information with the other party.

Similar to the performance-avoid model, a relationship was found between non-contextualized performance-prove orientation and development. Additionally, a relationship was found between contextualized performance-prove orientation and instrumentality, but not valence. As in the section above, I attribute this relationship to face-saving.

The findings for the performance-prove orientation model suggest that team goal orientation has not received sufficient attention and needs to be examined in the future. Additionally, little if any research exists examining the antecedents or effects of team performance-prove orientation; such research should be conducted in the future.

Combined Performance Orientation Model (Post Hoc Analysis)

The results of the combined performance orientation model were similar to those of the performance-avoid orientation model. Overall, these results suggest that the two-dimensional conceptualization of goal orientation is perhaps superior to a three-dimensional one. Again, non-contextualized performance orientation had a direct and negative effect on development, and again this relationship was not mediated by contextualized performance orientation. As in the performance-prove orientation model, team performance orientation had a positive relationship with contextualized performance orientation but not with non-contextualized performance orientation, indicating that ASA probably does not operate when interviewers and interviewees are concerned with face-saving. Interestingly, in the combined model, contextualized performance orientation did exhibit a trend toward a relationship with development. This relationship was mediated by valence and instrumentality, as hypothesized in both the learning and performance-avoid models.

Overall Observations

In addition to the observations associated with specific hypotheses, there are a few findings that apply to the overall study. First, although team goal orientation climate was related with some other variables in all models, it emerged as a particularly strong factor in the learning orientation model. In that model, team learning orientation climate demonstrated direct relationships with both individual non-contextualized learning orientation and valence and instrumentality. It was also weakly related to the pursuit of development opportunities and this relationship was mediated by individual contextualized learning orientation.

There are several possible explanations for why team climate was more prevalent in the learning orientation model than in any of the other models. First, this trend may be due to the fact that learning orientation has been studied more than any of the performance orientation variables as a predictor of development; as a result, the survey items have been honed more than other items. It is also possible that team learning orientation is a stronger situation than either performance-prove or performance-avoid orientation. Perhaps teams with a learning orientation talk of this orientation more frequently and more explicitly than do other teams, making it a more salient factor for employees on a learning-oriented team.

A second overall observation is that, while this study did not provide definitive evidence regarding the dimensionality of goal orientation, it did provide suggestive evidence for the two-dimensional model. While the factor analysis results were inconclusive, the hypothesis testing results seemed to suggest that a two factor model is appropriate. Specifically, the learning orientation and the performance-prove models had more significant relationships than either the performance-avoid model or the combined model. It is possible that team climate for performance-avoid orientation was not a factor in the present organization. Perhaps self-monitoring prevented individuals from providing truthful responses to these questions. Perhaps performance-avoid orientation at the team level has little influence because team members are more concerned with avoiding punishment than they are with demonstrating competence. Whatever the reason, this study supports a two dimensional (learning orientation and performance orientation) explanation. Of course, it is always possible that performance avoid

orientation may play a bigger part in a different organization. Further research is needed to determine the robustness of my findings.

A final general observation is that contextualized goal orientation affected both valence and instrumentality in the learning orientation model, but only instrumentality the performance orientation models. Recall that instrumentality is the belief that performance leads to rewards, while valence is the perception that these rewards are valuable. An explanation for this finding is that nearly everyone deems extrinsic rewards (more money, promotion) valuable. It is only on teams with a climate for learning orientation, however, that individuals perceive <u>intrinsic</u> rewards (such as learning, being challenged) to be valuable.

<u>Practical Implications</u>

This study has several implications for organizations. First, it indicates the importance of a team learning orientation. Team learning orientation impacts contextualized learning orientation, which in turn leads to the pursuit of learning/development activities. Indeed, team learning orientation may even act like a self-fulfilling prophecy. According to ASA theory, teams with a learning orientation will attract and select employees with a similar orientation. Managers can create such an orientation by constantly encouraging development and informing team members of upcoming development opportunities. When team members exert effort to seek development opportunities, they are not punished for time spent away from their jobs; in fact, development is rewarded on teams with a climate for learning. Managers invest significant time in their employees' development, and those employees are in turn expected to invest significant time in developing themselves. On the most learning-

oriented teams, employees are expected to transfer their new knowledge/skills to their colleagues, often by conducting presentations/informal training back to the team after a course, conference, or developmental project.

This study also has implications for hiring practices. There is a positive link between contextualized learning orientation and the pursuit of development opportunities, and a negative relationship between non-contextualized performance orientation and pursuit of development opportunities. This suggests that if organizations are looking for employees who will continuously grow, they should seek out employees who have a learning orientation at work, and should avoid employees who do not have such an orientation. Additionally, the relationship between team learning orientation and non-contextualized learning orientation suggests that employees who have such an orientation will be attracted to and will stay on a team with similar tendencies; those employees without such an orientation will either self-select off of the team or will be asked to leave. If organizations want to save time and money by hiring the right people from the start, consistency with the team's (or organization's) values should be considered in the hiring process.

Individual learning orientation is similar to the concept of growth need strength discussed in Hackman's Job Characteristics Model (Hackman and Lawler, 1971; Hackman and Oldham, 1976). The job characteristics model predicted that certain characteristics of the work environment will lead to desirable outcomes provided that the person is oriented toward growth (i.e., learning orientation). Additional research should be conducted on the relationship between individual learning orientation, team learning orientation climate, and growth need strength. There is substantial overlap in the

definitions of these variables, and future research should examine the relationships between them.

Lastly, this research has implications for the importance of objective measures in addition to interviewing as part of the selection process. All three performance orientation models found no relationship between team performance orientation and non-contextualized performance orientation. My belief is that this lack of a relationship can be attributed to the tendency for candidates and hiring teams to present themselves as more learning-oriented than they actually are, resulting in teams that are composed of employees with various types of goal orientation. The organization used in this study uses only interviews in selection; perhaps other assessment methodologies would allow for a more realistic assessment of goal orientation. Interviewers would also need to be educated on how to give a realistic explanation of the team's climate, rather than exaggerating opportunities for development.

<u>Limitations</u>

Despite these advantages and insights, there are some weaknesses to the study. The most serious limitation is a restriction of range. Human Resources employees suggested which teams might be interested in the study, and those teams were permitted to decline to participate. As a result, the majority of the teams that participated in the study were those that are predisposed to learning more about themselves. This is supported by the fact that more than half of the teams that participated in the research were from technical functions such as Information Technology and Research and Development, functions that typically require significant learning and development in order to perform at top levels. Anecdotally, the range restriction was further indicated by

the fact that when I told participants of the raffle in which they would be entered if they participated in the research, many responded, "You don't need a raffle. Just promise to come back and tell us what you found so that we can improve ourselves." This proves that many of the teams who participated did so simply to learn more about themselves, which is a sign that they had strong learning orientation climates. Future research of this type should focus on randomly-selected teams that represent the true range of goal orientation, both at the individual and the team levels. I suspect that if such a range were achieved, results would be more in line with my original hypotheses.

A related limitation is that all data were collected in one organization. Although it is a large organization characterized by significant group differences in terms of major accountabilities, working styles, and climates, there remains an overarching organizational culture, which likely affects many of the variables studied in this research. For example, the company has a rather traditional feel, with products similar now to what they were 100 years ago. Additionally, this is an organization in the private sector, which learning orientation is likely to be more prevalent than in, for example, a government agency. For ideal results, this study should be conducted across numerous organizations that differ on such variables as industry, location, size, and age of company. Several teams should be assessed within each organization; the teams included should represent the full range of goal orientations.

Lastly, with the exception of employee development, all of the information gathered was from the same source (the employee), which could bias the data. In fact, a series of contextual analyses indicated when self-reported development was used as the dependent variable, the group climate had no effect above and beyond the individual

level variable. This is probably due to the fact that all three variables in the model were

gathered from the same source (the employee); when the manager's report of

development activity was used in the contextual analysis, the climate did have an effect

above and beyond that of the individual-level variables. This self-report bias likely had

an effect on some of the valence and instrumentality results: Some employees may have

felt that it was politically incorrect to deem outcomes such as accolades and the

avoidance of termination as desirable, and altered their responses accordingly.

Unfortunately, due to the topics being studied, this information could not be gathered

from anyone else, as no one has the level of knowledge that the employee does.

However, future research should use archival data on development and perhaps consider

collecting data from sources in addition to the employees. For example, team learning

orientation could be measured by asking the team collectively to complete the research.

If nothing else, data on the different constructs should be collected at different times, so

that biases are minimized.

Implications for Future Research

The most obvious line of future research stemming from this paper deals with

team goal orientation. The current research established team goal orientation as a

valuable construct with effects on contextualized goal orientation and valence and

instrumentality, and possible effects on the pursuit of development opportunities. The

construct also has a relationship with non-contextualized goal orientation due to VIE

theory. Future research should focus on other outcomes of team goal orientation, such as

team performance and engagement/ interdependence. Additionally, future research

should attempt to identify how a team goal orientation is established, how stable it is over

time and across managers, and how it can be changed. Given the impact of team learning orientation, this last line of research is especially important: Research should investigate how a team can change from a performance orientation to a learning orientation.

Future research should also focus on how to instill a learning orientation in employees at work. The current research found that contextualized learning orientation has a direct and positive effect on development. This is good news for organizations, as contextualized learning orientation is something that can be changed or created, depending on the environment. Obviously, team learning orientation is one factor that instills a contextualized learning orientation in employees, but there are quite possibly others. These additional factors should be investigated.

Further research must also be conducted on the dimensionality of the goal orientation construct. Researchers such as VandeWalle (1997) indicate that three distinct factors are at play; as part of the current research, a confirmatory factor analysis confirmed a three-factor solution. However, papers such as this one and Nicholls et al. (1989) find that the performance-avoid orientation scale is either nonpredictive or redundant with performance-prove orientation; these papers would contend that the performance-avoid orientation should therefore be eliminated. A recent third camp (Attenweiler & Moore, 2006; Urdan & Mestas, 2996) suggests that goal orientation is actually comprised of more than three dimensions! Future research should focus on the dimensionality of the construct as a primary topic of interest, not just one or two hypotheses among many.

Footnotes

[1] It should be noted that I intended to include hypotheses about expectancy. However, the variable was accidentally omitted in the data-gathering phase of this research and therefore could not be included in the analyses.

[2] Training activities were not used as a dependent variable in the analyses presented subsequently because these variables did not show enough variability to warrant use

Appendix A: Tables

Table 1. Team Item Within-Group Agreement

Item	Median R_{wg}	ICC_1
Team Learning Orientation (total scale $ICC_1 = .11$)		
The people on this team expect each other to continuously improve their skills	.83	.07*
Members of this team get rewarded for acquiring new skills	.75	.07*
Members of this team get rewarded for continuing to develop their skills	.75	.01
Members of this team spend a lot of time learning new things	.75	.08*
The top management of this team really supports team members' efforts to develop ourselves	.75	.08*
Members of this team are always informed of opportunities to improve our skills	.71	.13**
Team Performance-Prove Orientation (total scale $ICC_1 = .19$)		
Members of this team are concerned about other people knowing how well the team is doing	.75	.00
Members of this team are rewarded for demonstrating their abilities to others	.73	.12**
The people on this team keep track of how others perceive our performance.	.75	.17**
Members of this team encourage each other to make a good impression on other employees	.75	.18**
The top management of this team really supports team members' efforts to show others just how talented we are	.83	.20**
The people on this team expect each other to constantly prove our abilities	.75	.04
Team Performance-Avoid Orientation (total scale $ICC_1 = .13$)		
The people on this team expect each other to avoid negative judgments by people outside the team at all costs	.63	.00
Members of this team encourage each other to not make a bad impression on other employees	.74	.14**
The people on this team are skillful at avoiding unfavorable perceptions of the team	.80	.07*
The top management of this team supports our efforts to prevent others from getting a poor opinion of us	.75	.13**
There are negative consequences for team members who display incompetence	.61	.06*
The people on this team perform just well enough to not be noticed	.68	.03

Combined Performance Orientation: (total scale $ICC_1 = .18$)

Table 2. Team Item Exploratory Factor Analysis (Principal Components with varimax rotation)

	Component		
Item	1	2	3
Team Learning Orientation			
The people on this team expect each other to continuously improve their skills	.60	.19	.05
Members of this team get rewarded for acquiring new skills	.79	.27	.16
Members of this team get rewarded for continuing to develop their skills	Not included in analysis due to insufficient within-group agreement		
Members of this team spend a lot of time learning new things	.68	.03	.39
The top management of this team really supports team members' efforts to develop ourselves	.84	.08	-.06
Members of this team are always informed of opportunities to improve our skills	.84	.12	-1.68
Team Performance-Prove Orientation			
Members of this team are concerned about other people knowing how well the team is doing	Not included in analysis due to insufficient within-group agreement		
Members of this team are rewarded for demonstrating their abilities to others	.67	.50	-.05
The people on this team keep track of how others perceive our performance.	.23	.76	.01
Members of this team encourage each other to make a good impression on other employees	.21	.83	.13
The top management of this team really supports team members' efforts to show others just how talented we are	.26	.77	-.19
The people on this team expect each other to constantly prove our abilities	Not included in analysis due to insufficient within-group agreement		
Team Performance-Avoid Orientation			
The people on this team expect each other to avoid negative judgments by people outside the team at all costs	Not included in analysis due to insufficient within-group agreement		
Members of this team encourage each other to not make a bad impression on other employees	.02	.79	.24
The people on this team are skillful at avoiding unfavorable perceptions of the team	.07	.85	.09
The top management of this team supports our efforts to prevent others from getting a poor opinion of us	.25	.82	.07
There are negative consequences for team members who display incompetence	.03	.15	.89
The people on this team perform just well enough to not be noticed	Not included in analysis due to insufficient within-group agreement		

Table 3. Instrumentality Factor Analysis (Principal Components with varimax rotation)

Item	Component		
	1	2	3
Team Learning Orientation			
I believe that developing one's skills leads to personal growth and development	.05	-.08	.74
I believe that developing one's skills leads to feelings of accomplishment	.06	-.05	.79
I believe that developing one's skills leads to greater chances for independent thought and action	.14	.02	.74
I believe that developing one's skills leads to increased knowledge	.03	.04	.72
I believe that developing one's skills leads to higher self-esteem	.14	.19	.71
Team Performance-Prove Orientation			
I believe that developing one's skills leads to receiving more compliments	.71	.23	.13
I believe that developing one's skills leads to respect from your superiors	.66	.29	.25
I believe that developing one's skills leads to special awards and recognition	.79	.14	.12
I believe that developing one's skills leads to promotions	.87	.08	.02
I believe that developing one's skills leads to pay raise	.81	.11	-.04
I believe that developing one's skills leads to respect from other employees	.64	.36	.10
Team Performance-Avoid Orientation			
I believe that developing one's skills leads to not losing your job	.15	.58	-.13
I believe that developing one's skills leads to not being demoted	.17	.70	.00
I believe that developing one's skills leads to not being disrespected by your superiors	.25	.77	-.02
I believe that developing one's skills leads to not being disrespected by your coworkers	.23	.76	.04
I believe that developing one's skills leads to not receiving a poor performance rating	.245	.72	.07
I believe that developing one's skills leads to avoiding low self-esteem	-.11	.63	.40

Table 4. Valence Factor Analysis (Principal Components with varimax rotation)

Item	Component		
	1	2	3
Team Learning Orientation			
I believe that personal growth and development are:	.13	.79	.08
I believe that feelings of accomplishment are:	.22	.75	.16
I believe that greater chances for independent thought and action are:	.12	.74	.05
I believe that increased knowledge is:	.03	.82	.13
I believe that higher self-esteem is:	.40	.55	.08
Team Performance-Prove Orientation			
I believe that receiving more compliments is:	.16	-.07	.73
I believe that respect from your superiors is:	.27	.24	.67
I believe that special awards and recognition are:	.03	.00	.78
I believe that promotions are:	.10	.24	.68
I believe that pay raise is:	.30	.18	.60
I believe that respect from other employees is:	.38	.12	.51
Team Performance-Avoid Orientation			
I believe that not losing your job is:	.53	.04	.30
I believe that not being demoted is:	.58	.11	.22
I believe that not being disrespected by your superiors is:	.79	.15	.23
I believe that not being disrespected by your coworkers is:	.78	.07	.28
I believe that not receiving a poor performance rating is:	.79	.19	.10
I believe that avoiding low self-esteem is:	.78	.28	-.01

Table 5. Instrumentality*Valence Interaction Factor Analysis (Principal Components with varimax rotation)

	Component		
Item	1	2	3
Team Learning Orientation			
Personal growth and development	.08	.82	.02
Feelings of accomplishment	.08	.85	.06
Greater chances for independent thought	.15	.77	.13
Increased knowledge	.07	.81	.05
Higher self-esteem	.12	.76	.22
Team Performance-Prove Orientation			
Receiving more compliments	.73	.12	.27
Respect from your superiors	.63	.27	.38
Special awards and recognition	.81	.11	.15
Promotions	.85	.04	.11
Pay raise	.81	-.00	.14
Respect from other employees	.61	.18	.37
Team Performance-Avoid Orientation			
Not losing your job	.18	-.07	.56
Not being demoted	.22	.10	.64
Not being disrespected by your superiors	.20	.05	.82
Not being disrespected by your coworkers	.24	.16	.78
Not receiving a poor performance rating	.25	.13	.72
Avoiding low self-esteem	-.06	.45	.63

Table 6. Development Scale Factor Analysis

Item	Component	
	1	2
Self-Report Scale		
Taken on increased responsibility	.67	.08
Turned around a major problem	.65	.19
Started something from scratch	.67	.10
Worked with a mentor	.55	-.04
Dealt with a crisis at work	.56	.19
Worked across functions or businesses	.51	.16
Worked with someone with very different values	.49	.02
Worked on a high-visibility project	.63	.10
Sought out 360-degree feedback	.41	.03
Served as a mentor to someone else	.48	.15
Dealt with a lot more pressure than usual	.64	.06
Worked with limited resources	.53	.04
Manager-Report Scale		
Taken on increased responsibility	.17	.74
Turned around a major problem	.26	.81
Started something from scratch	.04	.62
Worked with a mentor	.07	.37
Dealt with a crisis at work	.19	.73
Worked across functions or businesses	.05	.70
Worked with someone with very different values	.16	.50
Worked on a high-visibility project	.09	.74
Sought out 360-degree feedback	.03	.57
Served as a mentor to someone else	-.03	.53
Dealt with a lot more pressure than usual	.11	.70
Worked with limited resources	.08	.69

Table 7. Hypothesis Testing

Hypothesis	Confirmed?
1. Non-contextualized learning orientation will have a positive relationship to the pursuit of individual development experiences.	No
2. Team learning orientation will have a direct and positive effect on the pursuit of training and development opportunities, such that teams with a high learning orientation will have higher mean levels of development experiences than those without such an orientation.	No
3. There will be a direct and positive relationship between team learning orientation and individual contextualized learning orientation.	Yes
4. There will be a direct and positive relationship between team learning orientation and individual non-contextualized learning orientation.	Yes
5. There will be a direct and positive relationship between team performance-prove orientation and individual contextualized performance-prove orientation.	Yes
6. There will be a direct and positive relationship between team performance-prove orientation and individual non-contextualized performance-prove orientation.	No
7. There will be a direct and positive relationship between team performance-avoid orientation and individual contextualized performance-avoid orientation.	No
8. There will be a direct and positive relationship between team performance-avoid orientation and individual non-contextualized performance-avoid orientation.	No
9. Contextualized learning orientation will mediate the relationship between non-contextualized learning orientation and the pursuit of training and development experiences.	No
10. Contextualized performance-avoid orientation will mediate the negative relationship between non-contextualized performance-avoid orientation and the pursuit of training and development experiences.	No
11. Valence and instrumentality will mediate the relationship between contextualized learning orientation and development.	Yes, when manager input was used. Also, significant relationships found between contextualized learning orientation and valence as well as contextualized learning orientation and instrumentality

12. Valence and instrumentality will mediate the relationship between contextualized performance-avoid orientation and development..	No, but significant relationship found between contextualized performance-avoid orientation and instrumentality.

Table 8. Correlations Between Individual-Level Scales

Variable	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. NC lrng. or.	.09	-.12	-.02	.78**	.09	-.27**	-.10	.36**	.01	.05	.03	.40**	.21**	.20**	.24**	.30**	.08	-.01
2. NC pp or.		.65**	.90**	-.01	.47**	.40**	.53**	.07	.19**	.17**	.21**	.16*	.36**	.31**	.39**	-.01	-.03	-.10
3. NC pa or.			.92**	-.16*	.42**	.66**	.65**	.04	.24**	.27**	.30**	.02	.21**	.15*	.21**	-.06	-.13	-.07
4. NC perf. or. (comb.)				-.09	.48**	.59**	.65**	.06	.24**	.24**	.28**	.09	.31**	.25**	.32**	-.04	-.09	-.09
5. C.lrng or.					.15*	-.32**	-.10	.37**	.02	.06	.05	.41**	.16*	.14*	.17**	.38**	.21**	.07
6. C. pp or.						.36**	.83**	.01	.15*	.21**	.21**	.01	.32**	.17**	.29**	.08	.02	-.04
7. C. pa or.							.82**	-.13	.22**	.23**	.26**	-.10	.16*	.10	.15*	-.11	-.08	-.05
8. C. perf. or. (comb.)								-.07	.22**	.26**	.28**	-.05	.29**	.16*	.26**	-.02	-.04	-.05
9. Learn instr.									.29**	.22**	.31**	.56**	.15*	.27**	.24**	.19**	.05	-.11
10. PP instr.										.46**	.87**	.15*	.31**	.14*	.26**	.09	-.07	-.13*
11. PA instr.											.84**	.23**	.26**	.19**	.26**	.05	-.07	.03
12. Perf. instr. (comb.)												.22**	.33**	.19**	.30**	.09	-.08	-.06
13. Learn val.													.28**	.45**	.43**	.29**	.10	-.06
14. PP val.														.47**	.86**	.09	-.08	-.10
15. PA val.															.86**	.11	-.03	-.14*
16. Perf. val. (comb.)																.12	-.06	-.14*
17. Develop. (self)																	.32**	.07
18. Develop. (mgr.)																		.05
19. Tech. function																		

Table 9. Correlations Between Group-Level Scales

Variable	1	2	3	4
1. Team learning orientation		.57**	.40**	.51**
2. Team performance-prove orientation			.77**	.94**
3. Team performance-avoid orientation				.95**
4. Team performance orientation (combined)				

Appendix B: Figures

<u>Figure 1.</u> Model of Hypotheses: Learning Orientation

Individual Level

Non-Contextualized Learning Orientation

H1

Individual Development

H9

Contextualized Learning Orientation

H9

Valence

H11

Instrumentality

H11

H4

H3

Team Learning Orientation

H2

Team Development

Unit Level
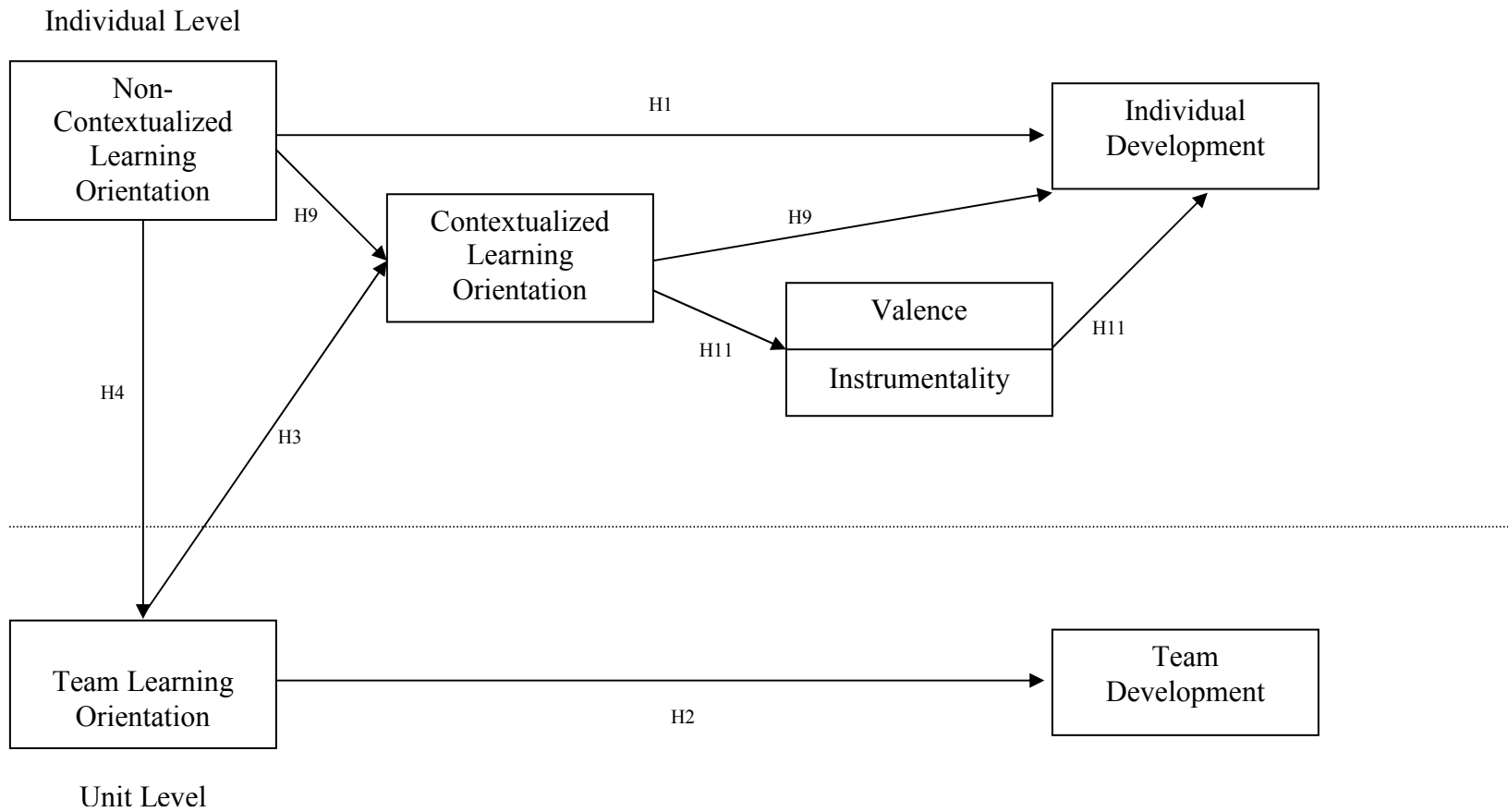
Figure 2. Model of Hypotheses: Performance Avoid Orientation

Individual Level

Unit Level

78
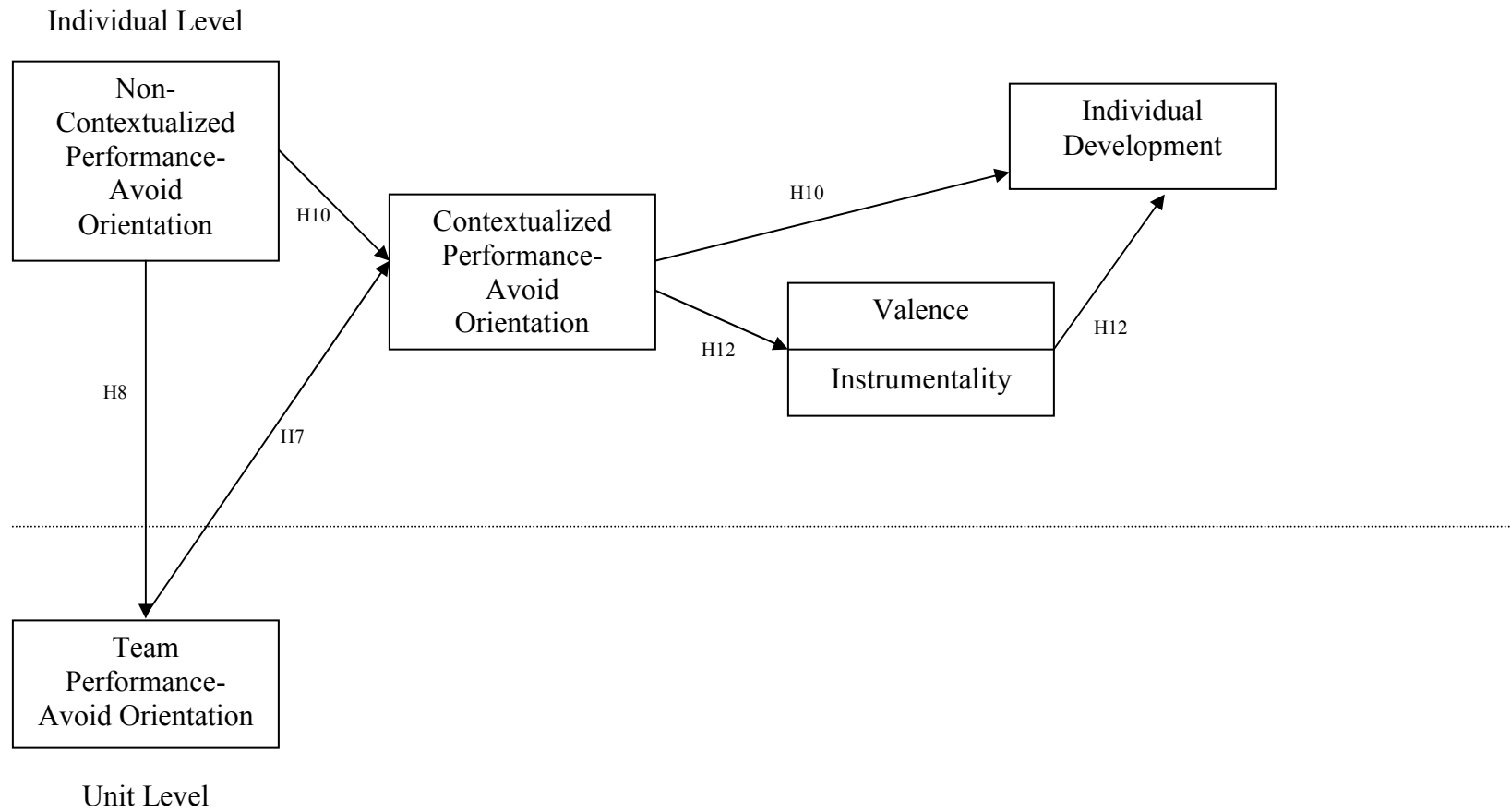
Figure 3. Model of Hypotheses: Performance Prove Orientation

Individual Level

Non-Contextualized Performance-Prove Orientation

Contextualized Performance-Prove Orientation

Individual Development

?

Valence

Instrumentality

H6

H5

Team Performance-Prove Orientation

Unit Level
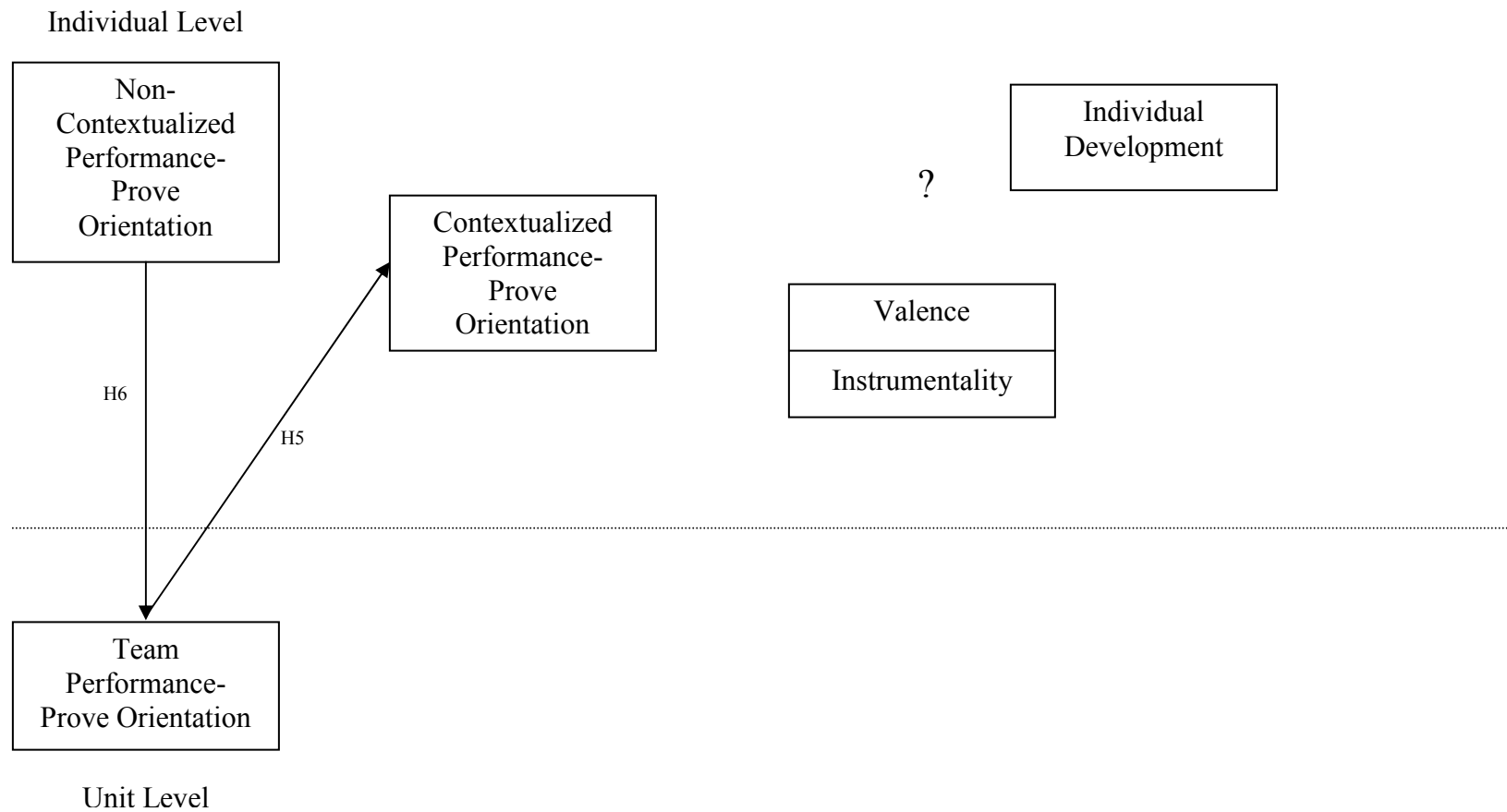
Figure 4: Post-Hoc Analyses: Combined Performance-Avoid and Performance-Prove Orientation

Individual Level

Non-Contextualized Performance Orientation

Contextualized Performance Orientation

?

Individual Development

Valence

Instrumentality

Team Performance Orientation

Unit Level
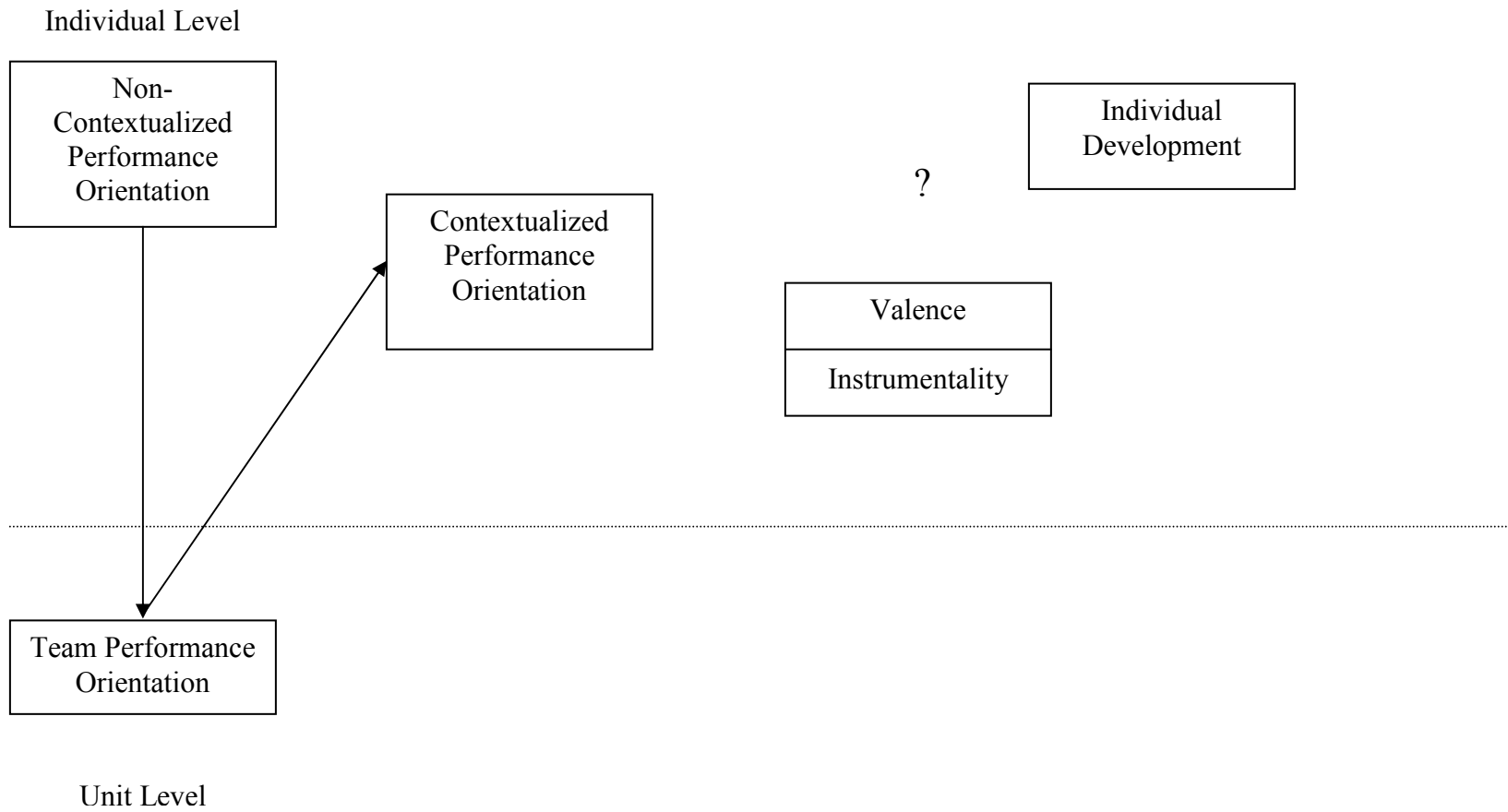
Figure 5. Learning Orientation Model: Significant Effects Only

Individual Level

```
┌──────────────┐
│     Non-     │                                          ┌──────────────┐
│ Contextualized│                                          │  Individual  │
│   Learning   │        ┌──────────────┐                   │ Development  │
│  Orientation │        │ Contextualized│                   └──────────────┘
└──────────────┘        │   Learning   │                        ▲
       │                │  Orientation │                        ┊
       │                └──────────────┘                        ┊ H11
       │ H4                    ┊                   ┌──────────┐  (partial)
       │              H3       ┊ H11               │ Valence  │
       │                       ┊            ────────┤          │
       ▼                       ┊           ┌────────┴──────────┤
┌──────────────┐                           │ Instrumentality   │
│ Team Learning│                           └───────────────────┘
│  Orientation │
└──────────────┘

                           ┌──────────────┐
                           │     Team     │
                           │ Development  │
                           └──────────────┘
```

Unit Level

81

Figure 6. Performance Avoid Model: Significant Effects Only

Individual Level

```
┌──────────────────┐                                                            ┌──────────────────┐
│       Non-       │  (not hypothesized – negative relationship, only           │                  │
│  Contextualized  │    significant when manager's ratings were used)           │   Individual     │
│  Performance-    │──────────────────────────────────────────────────────────▶│  Development     │
│     Avoid        │                                                            │                  │
│  Orientation     │                                                            └──────────────────┘
└──────────────────┘
                    ┌──────────────────┐      (not hypothesized – negative relationship,
                    │  Contextualized  │        only significant when employee's ratings
                    │  Performance-    │                    were used)
                    │     Avoid        │                    ┌──────────────────┐
                    │  Orientation     │                    │     Valence      │
                    └──────────────────┘      (not          ├──────────────────┤
                                           hypothesized)     │ Instrumentality  │
                                                             └──────────────────┘
```

┌──────────────────┐
│   Team   │
│ Performance-   │
│ Avoid Orientation│
└──────────────────┘

Unit Level

82

Figure 7. Performance Prove Model: Significant Effects Only

Individual Level

Unit Level

Figure 8: Combined Performance Model: Significant Effects Only

Individual Level

```
┌─────────────────┐
│      Non-       │     (negative relationship, only significant when manager's ratings were used)      ┌─────────────────┐
│  Contextualized │ ──────────────────────────────────────────────────────────────────────────────▶    │   Individual    │
│   Performance   │                                                                                      │  Development    │
│   Orientation   │                                                                                      └─────────────────┘
└─────────────────┘
                      ┌─────────────────┐
                      │  Contextualized │          (trend – negative relationship, only
                      │   Performance   │          significant when manager's ratings were
                      │   Orientation   │                         used)
                      └─────────────────┘                                          (trend toward mediation when
                                                   ┌─────────────────┐              manager's ratings were used)
                                                   │     Valence     │
                                                   ├─────────────────┤
                                                   │ Instrumentality │
                                                   └─────────────────┘
```

```
┌─────────────────┐
│Team Performance │
│   Orientation   │
└─────────────────┘
```

Unit Level

84

Appendix C Non-Contextualized Learning Orientation Scale (Button et al., 1996)

Please answer the questions using the scale below. When answering the questions, think

about yourself <u>in general</u>, as a person.

1	2	3	4	5	6	7

Strongly disagree   Strongly agree

1. In general, the opportunity to do challenging things is important to me.
2. In general, when I fail to complete a difficult task, I plan to try harder the next time I attempt it.
3. In general, I prefer tasks that force me to learn new things.
4. In general, the opportunity to learn new things is important to me.
5. In general, I do my best on fairly difficult tasks.
6. In general, I try hard to improve on my past performance.
7. In general, the opportunity to extend the range of my abilities is important to me.
8. In general, when I have difficulty solving a problem, I enjoy trying different approaches to see which one will succeed.

Appendix D Contextualized Learning Orientation Scale (VandeWalle, 1997)

Please answer the questions using the scale below. When responding, think about how you tend to act and think <u>at work</u>. Think only about yourself at work, not in any other aspects of your life.

1	2	3	4	5	6
Strongly disagree					Strongly agree

1. In my job, I am willing to select a challenging work assignment that I can learn a lot from.
2. At work, I often look for new opportunities to develop new skills and knowledge.
3. At work, I enjoy challenging and difficult tasks where I'll learn new skills.
4. For me, development of my ability is important enough to take risks at work.
5. At work, I prefer to perform in a situation that requires a high level of ability and talent.

Appendix E. Non-Contextualized Performance Orientation Scale (Button et al., 1996)

Please answer the questions using the rating scale below. When answering the questions,

think about yourself <u>in general</u>, as a person.

1	2	3	4	5	6	7

Strongly disagree   Strongly agree

Performance Prove

1. In general, I prefer things that I can do well rather than things that I do poorly.
2. In general, the things I enjoy the most are the things I do the best.
3. In general, the opinions others have about how well I can do certain things are important to me.
4. In general, I like tasks that I have done well on in the past.
5. In general, I feel smart when I can do something better than most other people.

Performance Avoid

6. In general, I'm happiest when I perform tasks on which I know that I won't make any errors.
7. In general, I like to be fairly confident that I can successfully perform a task before I attempt it.
8. In general, I feel smart when I do something without making any mistakes.
9. In general, I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others.
10. In general, avoiding a show of low ability is more important to me than learning a new skill.

Appendix F Contextualized Performance Orientation Scales (VandeWalle, 1997)

Please answer the questions using the rating scale below. When responding, think about how you tend to act and think at work. Think only about yourself at work, not in any other aspects of your life.

| 1 | 2 | 3 | 4 | 5 | 6 |

Strongly disagree   Strongly agree

Performance-Prove

1. At work, I'm concerned with showing that I can perform better than my coworkers.
2. At work, I try to figure out what it takes to prove my ability to others.
3. At work, I enjoy it when others are aware of how well I am doing.
4. At work, I prefer to work on projects where I can prove my ability to others.

Performance-Avoid

5. I would avoid taking on a new work task if there was a chance that I would appear rather incompetent to others at work.
6. At work, avoiding a show of low ability is more important to me than learning a new skill at work.
7. At work, I'm concerned about taking on a task if my performance would reveal that I had low ability.
8. At work, I prefer to avoid situations where I might perform poorly.

Appendix G Valence and Instrumentality Scales

<u>Instrumentality</u>

Please answer the items below using the following scale:

1	2	3	4	5
Rarely				Always

Developing one's skills leads to…

(learning orientation)

1. Personal growth and development
2. Feelings of accomplishment
3. Greater chances for independent thought and action
4. Increased knowledge
5. Higher self-esteem

(performance prove orientation)

6. Receiving more compliments
7. Respect from your superiors
8. Special awards and recognition
9. Promotions
10. Pay raise
11. Respect from other employees

(performance avoid orientation)

12. Not losing your job
13. Not being demoted
14. Not being disrespected by your superiors
15. Not being disrespected by your coworkers
16. Not receiving a poor performance rating
17. Avoiding low self-esteem

Valence

Please rate the desirability of the outcomes below using the following scale:

1	2	3	4	5
Very undesirable				Very desirable

(learning orientation)

18. Personal growth and development

19. Feelings of accomplishment

20. Greater chances for independent thought and action

21. Increased knowledge

22. Higher self-esteem

(performance prove orientation)

23. Receiving more compliments

24. Respect from your superiors

25. Special awards and recognition

26. Promotions

27. Pay raise

28. Respect from other employees

(performance avoid orientation)

29. Not losing your job

30. Not being demoted

31. Not being disrespected by your superiors

32. Not being disrespected by your coworkers

33. Not receiving a poor performance rating

34. Avoiding low self-esteem

Appendix H Goal Orientation Climate

Please rate the extent to which you agree or disagree with each statement using the following scale:

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

Climate for Learning Orientation

1. The people on this team expect each other to continuously improve their skills
2. Members of this team get rewarded for acquiring new skills.
3. Members of this team get rewarded for continuing to develop their skills.
4. Members of this team spend a lot of time learning new things.
5. The top management of this team really supports team members' efforts to develop ourselves.
6. Members of this team are always informed of opportunities to improve our skills.

Climate for Performance-Prove Orientation

1. Members of this team are concerned about other people knowing how well the team is doing.
2. Members of this team are rewarded for demonstrating their abilities to others.
3. The people on this team keep track of how others perceive our performance.
4. Members of this team encourage each other to make a good impression on other employees.
5. The top management of this team really supports team members' efforts to show others just how talented we are.
6. The people on this team expect each other to constantly prove our abilities.

Climate for Performance-Avoid Orientation

1. The people on this team expect each other to avoid negative judgments by people outside the team at all costs.
2. Members of this team encourage each other to not make a bad impression on other employees.
3. The people on this team are skillful at avoiding unfavorable perceptions of the team.
4. The top management of this team supports our efforts to prevent others from getting a poor opinion of us.
5. There are negative consequences for team members who display incompetence.
6. The people on this team perform just well enough to not be noticed.

Appendix I Training Experiences Questionnaire

1. In the past year, how many voluntary, nontechnical in-class training courses have you taken (college courses do not count)?

2. How much time was spent in these courses (hours)?

3. In the past year, how many voluntary, nontechnical on-line training courses have you taken (college courses do not count)?

4. How much time was spent in these courses?

Appendix J Original Developmental Experiences Questionnaire

Please answer the following questions <u>with respect to the past 12 months</u> using the following scale:

| 1 | 2 | 3 | 4 | 5 | CA (cannot assess) |

1. You have had to carry out a major reorganization, for example, as a result of a merger, acquisition, downsizing, or rapid growth.
2. You have had to make major strategic changes in the business – its direction, structure, technology systems, or operations.
3. You have tried something the organization had never tried before – no one knew for sure how to do it or how it would come out.
4. Your job has included launching new organizational ventures (e.g., new product lines, acquisitions, new functions or groups, new plans or concepts, or new facilities).
5. You have had to create or establish new policies or procedures.
6. You inherited widespread morale problems.
7. You needed to restore the credibility of your unit with the rest of the organization.
8. To succeed in this job, you have had to dismantle the strategy your predecessor had established.
9. Your business or unit had a record of poor performance before you joined.
10. You had to solve major problems a predecessor created.
11. Your direct reports resisted your initiatives.
12. There was an interpersonal conflict between you and at least one of your key direct reports.
13. Your employees were used to doing things the way they had always been done and were reluctant to change.
14. Key members of your staff were incompetent, demotivated, technically obsolete, or otherwise performing poorly.
15. Some of your key direct reports lacked the experience to do their jobs without close supervision from you.

16. Your success or failure in your job would be evident to higher management.

17. You were responsible for decisive action in a highly charged environment.

18. You were being tested by higher management.

19. Decisions you make would directly affect the lives and security of many people.

20. There were no excuses if you did not succeed in this job – failure would be viewed as your lack of ability.

21. There has been pressure to get a major piece of your job completed fast.

22. If you were to fail, serious business losses were likely.

23. This job was potentially more than even a good delegator could handle.

24. You have been responsible for numerous different products, technologies, or services.

25. You have been responsible for multiple functions or groups.

26. Because of the broad responsibilities, this job has put you under constant pressure; there were seldom any periods to "catch your breath."

27. Due to various reasons (e.g., difficulty in finding a qualified replacement), you had to do somebody else's job in addition to your own.

28. For you, this job was a dramatic increase in scope (managing significantly more people, dollars, sites, functions, etc.).

29. You needed more experience in order to carry out some aspect of your job (e.g., financial or market analysis, negotiation, budgeting).

30. You have had to manage something (e.g., a function, product, technology, market) with which you were unfamiliar.

31. Others questioned whether you were "ready" for this job.

32. This job was a sudden, unexpected change for you.

33. Compared to previous job incumbents, you didn't have the credentials or background or experience expected for this job.

34. You have been doing a type of work dramatically different from what you've done before.

35. You conducted business with people from different countries.

36. This job required dealing with foreign companies, agencies, or governments that could have a substantial impact on the business.

37. You managed parts of the business that were scattered across the world.

38. Your job required understanding the traditions and values of people from different cultures.

39. Your job required working in a foreign country where the culture was different from your own.

40. In terms of demographic variables, you had a diverse group of direct reports.

41. You were part of a multicultural work group.

42. You were responsible for developing managers from different ethnic groups or backgrounds and both genders.

43. You have had to get people from different backgrounds to work together.

44. You had to make personnel decisions about employees who differ from you in terms of race, gender, or cultural background.

45. The customer base you worked with was extremely varied.

46. To achieve your most important goals, you had to influence people outside the organization (e.g., clients, suppliers, unions, government agencies).

47. You managed various relationships with government officials or regulatory agencies.

48. You had to deal with diverse clients, customers, or markets.

49. You had to carry out formal negotiations with an outside body, such as unions, clients, or joint venture partners.

50. This job involved dealing with outside groups or organizations that had a substantial impact on the business.

51. You have had to coordinate action across dispersed sites over which you had no direct authority.

52. To achieve your most important goals, you had to influence peers at similar levels in other units, functions, divisions, etc.

53. Achieving your goals depended on how well you handled internal politics.

54. To accomplish a major portion of your objectives, you had to influence and work with executives higher than your immediate boss.

55. A great deal of lateral coordination was required with others in the organization.

Appendix K Developmental Experiences Questionnaire.

1. Have increased responsibility

2. Turn around a major problem

3. Start something from scratch

4. Work with a mentor

5. Deal with a crisis

6. Work across functions

7. Work with someone with very different values

8. Work on a high-visibility project

9. 360 feedback

10. Serve as a mentor

11. Deal with a lot more pressure than usual

12. Work with limited resources

Appendix L Control Variables

1. How old are you?
2. How long have you been with this company?
3. What is your level in the organization (e.g., 24, 36)?

Team Interdependence Measure (Bishop & Scott, 2000)

Please answer the questions below using the following scale. When responding, please think about your experience in your job as it is today.

1	2	3	4	5	6

Strongly disagree   Strongly agree

1. I frequently coordinate my efforts with others.
2. Jobs performed by team members are related to one another.
3. For the team to perform well, members must communicate well.
4. To achieve high performance, it is important to rely on each other.

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