Effects of Leadership Styles on Individual’s Time Use Orientation, Well-being and Effectiveness

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ABSTRACT
This study examines the effect of leadership styles on the relationship between individuals’ time use orientation, well-being and effectiveness. Specifically, five hypotheses were developed to examine the effect of leadership styles and polychronicity on individuals’ work stress and job performance, and the interaction effects between independent variables on the outcomes. Data were obtained from 260 employees working for seven life insurance companies. Results showed that transactional leadership was positively associated with work stress and performance. Polychronicity was negatively related to their work stress but was unrelated to performance. The interaction effects between transactional leadership and polychronicity was found to have significant effects on performance but not on work stress. Theoretical and practical implications of this study are discussed.

(118 words)

Keywords: Transformational leadership, Transactional Leadership, Polychronicity, Work Stress, Job Performance
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The rapid restructuring of organisations has led to a continual change in job nature and increased workload for employees. They are expected to be flexible and responsive to different job demands and working environments. This appears to align with the time orientation concept of polychronicity, which describes individuals who prefer to manage several work-related activities simultaneously. As it involves the ability of handling interruptions by modifying preset schedules (Hall & Hall, 1990), polychronic individuals can accommodate to unexpected activities (Bluedorn, Kailliath, Strube, & Martin, 1995). Taylor and his colleagues (1994) argued that faculty members working on multiple projects simultaneously appear to perform better than academics who tend to focus on completing only one project at a time. Such time use orientation would enhance individuals’ flexibility by switching their effort and mental gears between projects at hand (Bluedorn, & Denhardt 1998). However, employees working in such a manner may also experience stress. Therefore, the appropriate leadership styles displayed by managers become important to determine the well-being and effectiveness of polychronic employees in organisations. Over the last two decades, transformational leadership has attracted a great deal of attention in relation to important work outcomes (see Bass, 1985; Avolio & Bass, 1988). It involves the development of personal relationship between leaders and followers based on mutual trust, respect and commitment, rather than on contractual agreements (Gardner & Avolio, 1998). In contrast, transactional leadership has been characterized as a contractual or exchange process between leaders and followers (Bass & Avolio, 1994).

Although research suggests that both leadership styles influence individuals’ well-being and their performance (e.g., Avolio, 1999; Boal & Bryson, 1988; Seltze, Numberof, & Bass, 1988), a number of limitations have not been adequately addressed in the literature. Therefore, this study contributes to this body of research in three important ways by dealing with the limitations specifically. First, this study was conducted in the Asian context in order to examine whether the effects of both leadership styles on individuals’ well-being and effectiveness are culture specific, as the majority research has been conducted in the western contexts. Second, little is known about the effects of leadership styles on individuals’ work stress, which is very important because individuals are likely to face greater emotional hassles as a result of
increasing work demands. Finally, this study examines the role of transformational and transactional leadership styles on the relationship between polychronicity, individuals’ work stress and performance. This goes beyond the existing research by testing both leadership styles as independent variables, rather than testing them as moderating variables.

**HYPOTHESIS DEVELOPMENT**

Juggling several tasks may lead to work overload, resulting in poor health. However, little attention has been paid to understanding the relationship between polychronicity and work stress. Based on the limited findings, I argue that polychronicity is related to Type A behaviour, a personality construct consistently found to be related to stress and other health hazards (Price, 1982). Specifically, the components of Type A behaviour, such as achievement orientation, impatient, competitiveness and task-related hurry were positively related to polychronicity (e.g., Conte, Rizzuto & Steiner, 1999). However, past research did not find the direct link between polychronicity and work stress. The evidence shows that Type A and polychronicity have attributes in common. Hence it is logical to infer that polychronicity would positively relate to work stress.

Patterns of time utilisation are important factors affecting individual performance in the workplace (Bluedorn, Kaufman, & Lane, 1992). Taylor, et al. (1984) suggest that faculty members working on multiple projects simultaneously appear to render a higher job performance level than individuals who focus on completing a project at a time (Bluedorn, 1988). Alternatively, polychronic time use orientation would strengthen individuals’ creativity by facilitating cross-fertilization of ideas for qualitative performance. Persing (1999) found polychronicity to be correlated with innovation and creativity, which are probable contributors to qualitative performance. Results consistently indicated that polychronicity is associated with quantitative or qualitative performance in business and academic settings. Hence, I argue that polychronicity may relate to performance in a sales setting due to its complex and unstructured job nature. Thus, I hypothesised:

*Hypothesis 1: Polychronicity is positively related to (a) individuals’ work stress and (b) job performance.*

Polychronic subordinates tend not to follow any explicit schedules and work on what they like to juggle spontaneously (Kaufman, Lane, & Lindquist, 1991). If they do not juggle the task well, they would often
experience stress from work overload. Indeed, transformational managers can serve as a buffer to allay polychronic subordinates’ stress by changing their time-use orientation to accept task juggling as developmental opportunities. For example, transformational leaders can help them to perceive that priority setting for task juggling is meaningful challenges and is necessary for developing their personal skills to reduce their stress level effectively (Bass, 1998). As polychronic subordinates often have to face intense situations when juggling their task all by themselves, exercising priority setting would be important in clarifying their role. It appears that by so doing, subordinates’ stress can be alleviated and their attention will focus on the collective objectives, rather than on their negative feelings (Scandura & Schriesheim, 1994).

On the other hand, transformational leadership play an effective role in influencing individual effectiveness of polychronic subordinates. Transformational leaders focus on reinforcing the values and meanings essential to the collective vision that empowers subordinates to transcend their personal values of polychronicity in support of the vision of the organization (Avolio, 1999; Bass, 1997). It can be achieved by evoking high-order needs among polychronic subordinates in juggling task with a stronger sense in meeting deadlines. Polychronicity is perceived as the basis of individual effectiveness and a stronger sense in meeting a deadline is viewed as a value-added to that base for greater individual effectiveness. Therefore, polychronic subordinates are expected to perceive meeting deadline as a crucial factor for success and would likely commit to work simultaneously. Thus, I hypothesised

**Hypothesis 2:** The effects of polychronicity on individuals’ job performance will be higher when working with a transformational leader.

**Hypothesis 3:** The effects of polychronicity on individual work stress will be lower when working with a transformational leader.

Since polychronic subordinates tend to overstretch themselves, they would frequently switch their mental gears and that may lead to work stress. Transactional leaders are ineffective in attenuating polychronic subordinates’ stress because they emphasise task completion and pay little attention to other important aspects of human resources needs (Bass, 1985). In other words, transactional leaders have no interest in understanding how much stress and struggles polychronic subordinates have to face in order to complete a particular task (Bass, 1998; Avolio & Bass, 1998). They also often undergo severe emotional
drain due to heavy demands from task juggling. They realise psychological support from their leaders as more valuable than commissions and bonuses. In order words, the work stress level of polychronic subordinates is somewhat contingent on the degree of individualized considerations from their leaders. However, transactional leaders attend less to the relational aspects of interaction and more to defining the task and level of expected performance (Bass, 1998; Bass, & Avolio, 1994). Given the characteristics of transactional leaderships, polychronic subordinates are expected to experience work stress.

Ideally, polychronic subordinates with a stronger sense in meeting deadlines would produce better performance. This depends on the assumption however that the importance of deadlines has either been internalised or perceived by polychronic subordinates as a critical factor for the fulfilment of the collective vision articulated by their leaders. Lacking such an assumption, the orientation of deadlines as emphasised by transactional leaders would become an additional pressure to polychronic subordinates on top of task juggling and would likely result in negative performance. The experience of the subordinates may be dissatisfying and the transactional leaders who behave in this manner continually are less predictable and acceptable. The more frequent the transactional leaders focus on tight deadlines as performance requirements, the higher the likelihood the polychronic subordinates will have adverse performance. Thus, I hypothesised:

*Hypothesis 4: The effects of polychronicity on employees’ job performance will be lower when working with transactional leader.*

*Hypothesis 5: The effects of polychronicity on employees’ stress will be higher when working with a transactional leader.*

**METHODS**

*Participants and Data Collection Procedures*

Data were obtained from 260 employees working in seven major insurance companies in Hong Kong. The employees worked as front-line insurance agents and they were selected by the Human Resource Managers of each company. Surveys were distributed to participants and they returned them the manager. In total, 897 surveys were distributed and 295 copies of survey were returned. The response rate was 34%. 
In the sample, 47 per cent were men, 40 per cent were below 31 years of age, and 51 per cent had completed secondary education. They reported an average organizational tenure of 2.2 years.

Measures

Transformational and transactional leadership behaviours were measured by the Multifactor Leadership Questionnaire (MLQ-5X Bass & Avolio 1997). The scales measured five dimensions including idealised attributed, idealised behaviours, inspirational motivation, intellectual stimulation and individualized consideration of transformational leadership, and three dimensions including contingent reward, management-by-exception active and passive of transactional leadership. Each dimension has four items. Subordinates were asked to rate how frequently their supervisors engaged in specific behaviours based on a five-point anchor (0 = not at all to 4=frequently if not always).

Polychronicity was assessed with a ten-item scale by Bluedorn, Kalliath, Strube and Martin (1999) which assesses an individual’s preference for either engaging in one activity at a time or in several activities simultaneously based on a seven-point anchor (1=strongly disagree to 7= strongly agree).

Work Stress was measured with a nine–item scale by Steffy and Jones (1988). The scale is designed to measure psychosomatic distress by asking participants how often they experienced headaches, muscles fatigue, backaches, chest pains, sleeping problems and so on based on a seven-point anchor (1=strongly disagree to 7 =strongly agree).

Job performance was assessed with a four-item scale by Farh and Cheng (1997). The scale is designed to measure participants’ performance efficiency based on a seven-point anchor (1=strongly disagree to 7= strongly agree).

RESULTS

Table 1 shows the means, standard deviations correlation and alpha reliabilities of the variables in this study. The correlations found among the variables ranged from -0.20 to .30, of which 70% are within ± .20’s range. The overall pattern of the correlation results is perceived as evidence for adequate discriminant validity between variables. Some findings were consistent with what the hypotheses set but some did not. For example, transformational and transactional leaderships were related positively with job performance, and transactional leadership had a positive relationship with work stress. However, the results indicate that
no relationship was found between transformational leadership and work stress. Additionally, polychronicity was negatively correlated with work stress and was uncorrelated with job performance.

Regression analysis was used to test the hypotheses. The independent variables explained 7.1% variance of work stress and 10.6% variance of job performance. More specifically, polychronicity was found to be negatively associated with work stress ($\beta = -.198$, $p < .01$) and unrelated job performance. The hypothesis 1 was not supported. Additionally, transactional leadership was found to be positively related to individuals’ work stress and job performance ($\beta = .130$, $p < .05$) and ($\beta = .306$, $p < .001$) respectively which were similar to the results appearing in the current research. However, transformational leadership was found to have positive effects on job performance only ($\beta = .245$, $p < .001$) but not on work stress. This indicates that cultural differences might have implication on employees’ perception of leadership and time-use orientation.

The significant interaction effect was found between polychronicity and transactional leadership on performance ($\beta = -.155$, $p < .01$). The relationship between polychronicity and job performance is contingent on how frequently the sales managers exhibit transactional leadership at work. The negative sign reflects that the managers who tend to exhibit transactional leadership frequently would decrease the performance level of polychronic subordinates significantly. To understand the nature of the significant interaction, the procedure developed by Cohen and Cohen (1983) was employed. The high and low values of the independent variables were substituted in the regression equation and the interaction effect was plotted on the graph in Figure 1. The graph suggests that subordinates with a lower polychronic orientation reported a high level of job performance when the frequency of managers exhibiting transactional leadership was high. Conversely, individuals with a lower polychronic orientation reported a low level of job performance when the frequency of managers exhibiting transactional leadership was low. Finally,

### Table 1 Means, Standard Deviations, Correlations and Reliabilities

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Polychronicity</td>
<td>3.71</td>
<td>.86</td>
<td>(.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Transformational Leadership</td>
<td>2.69</td>
<td>.64</td>
<td>.01</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transactional Leadership</td>
<td>1.63</td>
<td>.62</td>
<td>-.06</td>
<td>-.30**</td>
<td>(.75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Work Stress</td>
<td>3.41</td>
<td>1.20</td>
<td>-.20**</td>
<td>-.11</td>
<td>.18**</td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>5. Job Performance</td>
<td>4.20</td>
<td>1.00</td>
<td>-.04</td>
<td>.15*</td>
<td>.28**</td>
<td>.04</td>
<td>.78</td>
</tr>
</tbody>
</table>

N=260. ** Significant correlations (p < .01) and * (p < .05). Internal consistency reliabilities are in parentheses.
individuals with a higher polychronic orientation reported a similar level of job performance, regardless of the frequency of managers exhibiting transactional leadership being high or low. Thus, hypothesis 4 was supported.

**DISCUSSION**

Although polychronicity was significantly related to subordinates’ work stress, the relationship was found to be negative instead of positive. It was inconsistent with Hypothesis 1a. The results reveal something interesting on the relationship—juggling several tasks might help an individual to reduce stress. These counterintuitive findings may be explained by the sales job nature, which entails lots of non-routine tasks (e.g., complex and unexpected activities) and the dynamic sales situation requires them to have extensive knowledge and skills (Yammarino & Dubinsky, 1992). As sales agents need to be flexible and attentive in order to satisfy the diversified needs and expectations of several customers, task juggling would help offset the emotional fluctuations and reduce their negative feelings (Kaufman, Lane, & Lindquist, 1991). Although Taylor et al. (1984) found that polychronicity was related to faculty productivity, it was unrelated to job performance in this study as predicted in Hypothesis 1b. The findings appeared to be consistent with the suggestion of a study conducted by Bluedorn and Denhardt (1988) that polychronicity may be associated with performance only in particular settings. This is because an individual’s time-use orientation may be manifested by the job nature and the working environment that he/she is working in.
With respect to Hypotheses 2 and 3, the findings show that transformational managers were not perceived to be a buffer in helping polychronic subordinates to reduce stress level and enhance performance level. One possible explanation for these findings may lie in the nature of the sales positions. Sales agents are in a boundary role (Walker, Churchill, & Ford, 1979), and they may interact less frequently with their managers, since they are responsible for generating sales and profits for their companies by spending most of their time outside their organizations to meet customers (Belasco 1966). As a result, in comparison to transactional managers, transformational managers become less effective in displaying leadership behaviours (e.g., articulating the collective vision). Subordinates then find it difficult to understand and internalise these behaviours as they require a relatively longer time to build up frequent face-to-face interaction and quality communication with subordinates. Research suggests that physical distance decreases the opportunities for direct influence and the effectiveness in strengthening the working relationship between leader and follower (Bass, 1990; Liden, Sparrow, & Wayne 1997). With regard to Hypotheses 3 and 4, Figure 1 explained clearly the implication of the interaction effects between transactional leadership and polychronicity on job performance.

IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study has three theoretical contributions. First, it illustrates that the effectiveness of transformational leaders has been overemphasized and overly elevated in the Western literature because leadership is highly cultural specific. Specifically, a transactional leader’s emphasis on getting good results and satisfying the immediate material needs of subordinates were viewed as less positive than transformational leadership among Western subordinates, whereas they might be seen as more positive than the latter among their Asian counterparts. Second, it suggests that polychronicity may be a variable specific to job nature. Although only one job nature has been included in this study, it provides something important when studying polychronicity. For example, findings illustrate that insurance sales agents are more likely to have polychronic time use orientation, which is linked with stress but ineffective performance level. Finally, it takes initiatives in examining leadership as a moderator to study the interaction effects of transformational and transactional leadership and individual’s time use orientation on their well-being and
effectiveness. It is an innovative conceptual development to increase our understanding on leadership
effectiveness beyond the traditional development of leadership as a predictor for the outcome variables.

A practical implication of this study is on training intervention. The fact that polychronicity can
decrease an individual’s stress and perhaps enhance job performance suggests that organizations should
provide appropriate training on polychronicity. Organisations will greatly benefit from such training if the
managers and subordinates improve their time use orientations. With similar orientations, the managers
would be more effective in encouraging polychronic subordinates’ to juggle task and motivating them
towards better performance. Training supervisors on effective transactional leadership style is also
important in enhancing employees’ effectiveness (Avolio, Waldman, & Yammarino, 1991). Specifically,
supervisors are trained to think carefully about how they provide clear performance requirements, positive
and negative feedback on subordinates’ job performance, and to specify exactly how they should exhibit
these styles at an appropriate time for work-related situations.

The major limitation of this study is that the ratings of all the related constructs in this study were
obtained from the same raters at the same time. Common method variance may inflate relationships
between self-rated predictors and the outcome variables, which manifest on the results of bivariate
correlations. However, this problem is somewhat mitigated by one important consideration, i.e. the
correlations obtained vary widely in their size and pattern. For instance, both forms of leaderships or
polychronicity explained more the variance of subordinates’ performance than work stress.

Future research should focus on the development of indigenous scales of transformational and
transactional leadership behaviours specific to the Chinese context, instead of using a modified version of
the scales developed in the West to study employees’ perception towards both forms of leadership in Hong
Kong (Lockett, 1998). Another direction is to replicate this study with employees working for more
organisations in different industries, which would help extend and validate the findings to other
populations. In addition, comparisons between different industries are conducive to understanding the
needs of different time-use orientations among individuals, and how both forms of leaderships of managers
vary across different industries.
REFERENCES


