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- 1) Relationship between leader-subordinate personality congruence and performance and satisfaction in the UK, by Kamarul Zaman Ahmad.
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Relationship between Leader-Subordinate Personality Congruence and Performance and Satisfaction in the UK

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Abstract

This study seeks to investigate the relationship between leader-subordinate congruence and performance and satisfaction. Data was gathered from 267 leader-subordinate dyads in a light manufacturing electrical assembly plant in Wales and 82 leader-subordinate dyads in another in England, UK. Data on personality of the respondents and their supervisors were gathered using the 16PF (Cattell et al., 1992). The absolute difference between the personality scores of the respondent and the supervisor for each of the five secondary personality factors were calculated. The absolute differences were then totalled up to obtain a total difference score. As expected there was a significant correlation between the difference scores and satisfaction with the supervisor and overall job satisfaction.

Introduction

Despite numerous research on leadership, there is still much uncertainty about what is required to be an effective leader (Higgs and Rowland, 2000; Higgs, 2003). There are studies that have focussed on leadership effectiveness from the point of view of Bass and Avolio's (1990, 1994) transformational/transactional leadership model (Barling et al, 2000; Palmer et al, 2001; Gardner and Stough, 2002). Other studies have looked at the different aspects of leader-member relations, task structure and position power (Fiedler's contingency theory, 1967), the extent of the subordinates' work experience and readiness (Life Cycle Theory by Hersey, Blanchard and Johnson, 2001) and work structure, leadership styles and subordinates perceived ability (Path Goal Theory by House, 1996). However, there exists a whole body of literature on the person-environment fit or congruence (Kristof,

1996) and the current research examines leadership effectiveness from this viewpoint, in particular the supplementary congruence or fit model.

Literature Review

Supplementary congruence or fit is said to exist when “a person fits into some environmental context because he or she embellishes or possess characteristics, which are similar to other individuals in the environment” (Muchinsky & Monahan, 1987, p. 268). Consequently a more precise definition of supplementary congruence is the extent to which an individual’s personality is similar to other people’s personality in the relevant environment. In the measurement of personality, Meir et al (1997) utilised Holland’s typology, whereas Schuerger et al (1994) used Cattell’s trait theories.

Previous research on supplementary congruence looked at how the individual worker fits with the other workers in the team (as in Meir Hadas & Noyfeld 1997) or the entire organisation (as in Schuerger, Ekeberg & Kustis in 1994) and how this affects satisfaction. Kristof et al (2005) has given the most comprehensive coverage of studies on person-environment fit so far. Often the ‘characteristic’ of the person that is of interest to P-E fit researchers is the person’s personality. In such studies, the personality of each worker is compared with that of the rest of the group members. Although dyadic fit may occur between coworkers (Antonioni and Park, 2001) applicants and recruiters (Graves and Powell, 1995) and mentors and protégés (Turban and Dougherty, 1994), however, the extent to which the subordinate fits with his/her leader and how this affects satisfaction with supervision and the subordinate’s performance is to a large extent ignored in supplementary congruence literature, with only a few studies such as Adkins, Russell and Werbel (1994) and Van Vianen (2000). The study by Schaubroeck and Lam (2002) examined supervisor-subordinate personality similarity. However, the only personality trait examined in that research was individualism/collectivism. There appears to be no previous cited study that has compared the personality traits of the subordinate using a multi-trait measure such as the 16 Personality Factor Test (Cattell, Eber & Tatsuoka, 1992), with that of his/her leader.

Similarly, there have been studies that have looked at other issues such as the extent to which an individual's values match those of his/her leader (Colbert, 2004; Krishnan, 2002). Hatfield & Huseman (1982) found that the perceptual congruence about communication between supervisor and subordinate was found to be significantly related to satisfaction with work, supervision and the job in general. Barret (1995) obtained two agreement scores by correlating subordinates' perception of the requirements of the job with the requirements of the leaders and the organisation. The agreement score (which was a measure of congruence) was found to correlate significantly with performance ratings. Schein (1985) also argued that congruence between a leader and subordinate would have a positive association with the performance of the subordinate. Tsui & O'Reilly III (1989) also found in a field study of 272 leader-subordinate dyads that increasing demographic dissimilarity was associated with lower effectiveness as perceived by leaders and less personal attraction on the part of leaders for subordinates. The demographic characteristics used were age, gender, race, education, company tenure and job tenure. Wexley, Alexander, Greenawalt & Couch (1980) found that both actual and perceptual congruence were valid predictors of satisfaction and performance. In the above cited studies, the relationship between leader-subordinate congruence and performance was found to be positive. On the other hand, Meglino, Ravlin & Adkins (1989) found a negative association between leader-subordinate congruence and the rated quality and quantity of the performance of the subordinate. The results of Meglino et al. (1989) clearly contradict findings in other studies. For this reason, the current research was conducted to resolve this apparent controversy.

The role of personality

It is important to note that the studies cited above have compared workers in relation to their leaders on criteria other than personality. As already mentioned, there appears to be no cited studies that have looked at the match or congruence between the individual's personality and that of his/her leader. Future studies should examine 'personality differences' as a proxy for, or as an alternative to, 'value differences'. Furthermore, the supplementary congruence model, previously only used to examine co-worker

congruence, should be used to analyse leader-subordinate congruence also. There is no reason why the theory of people liking each other because they are similar (Newcomb, 1960) should not apply to subordinates and leaders. The possible outcomes of good leader-subordinate congruence would be high satisfaction with supervision and also the high performance of the subordinate. It also seems that interactions between leaders and the subordinates must be frequent (perhaps on a daily basis) for the degree of fit or congruence to have an impact on performance.

Hypotheses

As mentioned earlier, we have extended the supplementary congruence model to measure leader-subordinate congruence also. The theory is that the more similar the respondents' personalities are to their supervisors, the more the respondents are satisfied with the supervision received. The hypotheses accordingly are:

H1: Leader-subordinate congruence is positively associated with satisfaction with supervision scores.

H2: Leader-subordinate congruence is positively associated with satisfaction with the work scores.

H3: Leader-subordinate congruence is positively associated with overall job satisfaction scores.

H4: Leader-subordinate congruence is positively associated with performance scores.

Method

Data on a total of 350 respondents were collected from the two companies as follows:

Company 1: 257 shopfloor workers and 8 supervisors (total = 265)

Company 2: 54 shopfloor workers, 8 leading hands, co-ordinators, 14 office workers, and 3 managers (total = 85)

Company 1 was located in Wales whereas Company 2 was located just outside London. Both companies were involved in light manufacturing assembly of electrical products and accessories. Leader-subordinate

analyses were conducted on 267 leader-subordinate dyads in Company 1 and 82 leader-subordinate dyads in Company 2. In Company 1, 18 of the shopfloor workers had 2 supervisors (making an additional 18 dyads). However 8 shopfloor workers had a supervisor who left the company before his personality scores could be taken and were thus excluded from analyses (i.e. $257 + 18 - 8 = 267$).

Performance ratings consisted of 2 objective and 2 subjective measures. The objective measures were

Test administration took place at various intervals. The pattern was usually for the researchers to spend perhaps a week testing the workers who were available at the factory, and then to return the following month to test some more workers. The collection of data on the employees in the sample took place in sessions at which, from three to fifteen employees were present. Subjects were asked to supply their names to identify supervisor-subordinate groups and to match with the performance ratings given by the supervisors. Every attempt was made to reassure the respondents' anonymity and reduce their worries and anxieties about participating in the research.

Materials

Measurement of personality and congruence

Personality was measured by the 16 Personality Factor Test (16PF). The five personality secondary factors were first of all calculated using data from all the sixteen primary personality factors and using the formula provided by Cattell et al. (1992). Then, the absolute difference between the personality scores of the subordinate and the supervisor for each of the five secondary personality factors were calculated. The absolute differences for each of the five factors were then totalled up to obtain a general difference score.

Measurement of job satisfaction

The overall and facet satisfaction were measured by the Job Descriptive Index (JDI; Smith Kendall & Hulin, 1969). It consists of five separate sections. Each section measures one separate facet i.e. satisfaction with the work, pay, promotion, supervision, and co-workers. Total job satisfaction was

measured by a total of the five facets of the JDI. Internal consistency reliabilities of the scale were 0.8955 for overall, 0.8797 for supervision satisfaction and 0.7660 for work satisfaction.

Measurement of Job Performance

Performance ratings consisted of 2 objective and 2 subjective measures. The objective measures were Effort (based on the percentage of the time the worker was able to achieve the target number of non-defective units required to be produced), and Errors (based on the percentage of units produced which were later found to be defective. This can include errors of omission as well as errors of commission. The lower the percentage of defective units produced, the higher the score and hence the better the worker). The subjective measures were Attitude (a subjective measure comprising the employees' enthusiasm at work, the willingness to follow orders and to go beyond the call of duty when the need arises) and Ability to work as a team (self explanatory). Graphic rating scales were taken from a previous study on P-E fit by Mackowiak Mackowiak & Schulz (1990). Scores ranged from 1 to 18. Performance appraisal forms were given to leaders of both companies for them to fill in. Unfortunately, it was not possible due to time constraints to provide formal training to the leaders on how to appraise their subordinates. However, the persons involved in the appraisal process were given a few tips on how to reduce the above-mentioned errors in accordance with the recommendations of Woehr & Huffcutt (1994). Scores of the four components of performance were then factor analysed using Principal Components Analysis (PCA). Separate analyses were conducted for Company 1 and Company. Only one factor emerged in both companies. These factor scores were saved as a separate variable in the SPSS and were deemed the overall performance rating. Rotation of the factors was not possible in this case since only one factor was extracted.

Analysis

In assessing leader-subordinate congruence, the personality of each respondent was compared with that of his/her leader. The five secondary personality factors obtained from the 16PF were used in the analysis of leader-subordinate congruence. The procedure will now be described in some detail.

First of all, the respondents' data were sorted according to their leaders. The personality data of the relevant leaders had already been collected. The five secondary personality factors of the leaders were also computed using data from all the sixteen primary personality factors and using Cattell et al's (1992) formula. Five new variables were created in the SPSS, to represent the variables representing supervisors' scores of 'extroversion', 'anxiety', 'tough-mindedness', 'independence' and 'self-control' respectively. For each case, the score representing the relevant supervisor's personality was entered under each of the five new variables.

The absolute difference between the respondent's score and that of his/her leader was then calculated for each of the five secondary personality factors. The difference scores in respect of each of these factors were added together to obtain a grand total (hereinafter referred to as "difference scores"). Absolute difference scores were used because this research intends to examine fit in both directions, and not just in one direction as in other research (for example underemployment and relative deprivation as in Feldman, Leana & Bolino (2002) and overqualification as in Johnson & Johnson (1999)).

The difference scores were then correlated with:

- Supervision satisfaction scores (measured by the JDI),
- Job satisfaction scores (measured by the JDI),
- Satisfaction with work scores (measured by the JDI), and
- Performance factor scores and their components (effort, errors, attitude and willingness to work in groups).

supervisor is to the subordinate, the more satisfied the subordinate is with his/her job as a whole. Yet Tests of Pearson correlation were conducted. Since the direction of the relationship was predicted a priori, both tests were conducted on a one-tailed basis. Difference scores were expected to have negative relationships with supervision satisfaction and performance.

Results

Leader-subordinate congruence and satisfaction with supervision (H1)

The results are laid out in Table 1 below. As expected there was a highly significant negative correlation between leader-subordinate congruence (as represented by the difference scores) and satisfaction with supervision. This was true for both Company 1 ($r = -0.348$) and Company 2 ($r = -0.405$).

INSERT TABLE 1 ABOUT HERE

Overall, the results seem to give credible support to the theory that, the more similar the supervisor is to the subordinate, the more satisfied the subordinate is with the supervisor.

Leader-subordinate congruence and satisfaction with the work itself (H2)

As expected there was a significant negative correlation between leader-subordinate congruence (as represented by the difference scores) and satisfaction with the work itself. The results appear to lend weak support to the theory that, the more similar the supervisor is to the subordinate, the more satisfied the subordinate is with the work itself. Again, this was true for both Company 1 ($r = -0.147$) and Company 2 ($r = -0.185$).

Leader-subordinate congruence and satisfaction with overall satisfaction (H3)

As expected there was a significant negative correlation between leader-subordinate congruence (as represented by the difference scores) and overall satisfaction. This suggests that the more similar the

supervisor is to the subordinate, the more satisfied the subordinate is with his/her job as a whole. Yet again, this was true for both Company 1 ($r = -0.201$) and Company 2 ($r = -0.209$).

Leader-subordinate congruence and performance (H4)

We expected that the more similar the subordinate's personality was to his/her supervisor's, the higher would be his/her performance scores. As expected, there was a significant negative relationship between difference scores and performance scores ($r = -0.19$, significant at the 0.05 level) for Company 2. However, contrary to expectation, there was positive relationship between difference scores and performance scores ($r = 0.14$, significant at the 0.05 level) for Company 1. This suggests that in Company 1, similarity of personality between supervisor and subordinate may actually have negative effects on the subordinate's performance. This negative relationship found in Company 1 is consistent with the results of Meglino et al (1989) but contrary to Schein's (1985) prediction which was in the opposite direction.

Discussion

Summarising the findings, it appears that, as the supervisor's personality becomes more similar to that of the subordinate, the subordinate will become more satisfied with supervision, with the particular work that he/she does and with the job as a whole. However, in Company 1, this apparent advantage appears to be counteracted by a slight reduction in performance. We say "slight reduction" because the correlation coefficients obtained involving performance are somewhat weak. However, what is clear from the results is that leader-subordinate congruence does not lead to increased effort or result in an improved work attitude among subordinates. Pearson correlation revealed that there was in fact a positive relationship between difference scores and the variable of errors, implying that improved relationships with supervisors may cause the subordinates to be less cautious, resulting in more errors being committed at work. However, firm conclusions cannot be drawn regarding this, since correlation does not necessarily mean causation.

In Company 1, Pearson tests showed that increased supervisor-subordinate congruence was negatively associated with 'willingness to work in groups'. These results seem to give the impression that the respondents' relationships with supervisors improve at the cost of the respondents' relationships with the rest of their group members. Another possible reason may be that, as the relationship with the supervisors improve, subordinates are more likely to voice their complaints about their colleagues to the supervisors. This provides more evidence to the supervisors of the respondents' unwillingness to work in groups, hence the lower scores for the variable "willingness to work in groups".

Taking into account the varying strengths of all the aforementioned relationships, it appears appropriate to recommend that Company 1 should strive to achieve improved supervisor-subordinate relationships by ensuring that the personality of the supervisors are similar to their subordinates. This can be done by ensuring that subordinates are not assigned to supervisors whose personalities are different. This will result in improved satisfaction with not only supervision but also with the work itself and with the job as a whole. Improved job satisfaction can lead to better morale, longer tenure and reduced motives for sabotage. After taking into account the strengths of the correlation and the consistency of results when different measures and statistical tests were used, it is reasonable to conclude that there is a higher chance of leader-subordinate congruence to lead to improved job satisfaction than it is for leader-subordinate congruence to lead to decreased performance.

Two salient differences between Company 1 and Company 2 are noted. Firstly, relationships between leader-subordinate congruence and satisfaction (supervision, work and the job overall) in Company 2 are generally stronger than in Company 1. Secondly, the relationships between leader-subordinate congruence and performance in Company 1 and in Company 2 are in opposite directions. Several explanations can be advanced to account for the differences in results between the two companies. From the interviews, observations and focus group discussions, workers in Company 1 often said that they did not have to engage in much face to face communication. They met their supervisors as a group only once

a month i.e. during the company briefs. The respondents also admitted that they sometimes had to see their supervisors when they had to be "told off" for doing something wrong. Other than that, the nature of the work does not require the supervisors to constantly monitor or assist their subordinates. This was obvious when the researcher walked along the shopfloor in Company 1. This can be contrasted with the situation in Company 2, where the leader-subordinate interaction was more vital in the carrying out of tasks. Certainly the respondents involved in desk jobs had to work closely and interact more with their managers. Desk/office workers were in closer physical proximity to the managers and could often be seen going in and out of their offices. The workers on the shopfloor were also seen to be interacting more with their leading hands and co-ordinators in Company 2 than in Company 1. The role of the co-ordinators was often the allocation of work and discussion of the work that needed to be done. One crucial difference between the work in Company 1 and that of Company 2 was that the work in the former was closer to that of mass production whereas in the latter, it was more "made to order". The workers in Company 1 were involved in the assembly of an average of three products whereas the average worker in Company 2 would be required to assemble or make about twelve different products. This was apparent when the workers showed the diagrams of the different products that they had to assemble. As a result, the leading hands were seen to be more often liaising and even working together with their subordinates in Company 2 than in Company 1.

The results would appear to suggest that where the leaders and subordinates work closely together, having similar personalities is advantageous. Subordinates with personalities similar to their leaders will be more satisfied with their leaders and also be likely to perform better than subordinates whose personalities are different from their leaders. On the other hand, where the leaders merely direct the subordinate and check whether the subordinate carries out the work properly and dutifully, a slightly different relationship exists and having similar personalities is less advantageous.

Limitations and Future Research

Since this study is cross sectional, a conclusion cannot be drawn about the direction of causality in these findings. However, it is reasonable to hold that leader-subordinate congruence was for the most part responsible for changes in satisfaction rather than the reverse. After all, the view taken in this research is that personality traits are relatively stable over long periods of time compared to attitudes such as job satisfaction. It is more reasonable to argue that the similarity between leader and subordinate results in greater satisfaction felt by the subordinate rather than the reverse.

As regards future research, the reasons why leader-subordinate congruence can have a positive relationship with performance in one situation (as with Company 2) and a negative relationship in another situation (as with Company 1) should be explored further. Two essential differences were observed between Company 1 and Company 2 as far as leader-subordinate relationships are concerned. Firstly, leaders in Company 2 have a narrower span of control than leaders in Company 1. Secondly, leaders in Company 2 are seen to work more closely with their subordinates than supervisors in Company 1. In fact, the leading hands in Company 2 do more or less the same type of work as the subordinates. The coordinators in Company 2 are often seen liaising with shopfloor workers. In contrast, the leaders in Company 1 were observed to spend less time liaising with workers. Alternatively the fact that results are different by company may have to do with other factors. Personality as measured by the 16 PF is just one facet of leadership and there exists many variables at play. For example the different aspects of leader-member relations, task structure and position power (Fiedler's contingency theory, 1967), the extent of the subordinates' work experience and readiness (Life Cycle Theory by Hersey, Blanchard and Johnson, 2001) and work structure, leadership styles and subordinates perceived ability (Path Goal Theory by House, 1996), may also account for the differences in results between the companies, in addition to span of control.

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Table 1: Pearson Correlation between Leader-subordinate Congruence and Outcome Variables

Category	Scales	Difference Scores	
		Company 1	Company 2
Supervision satisfaction	JDI	-.348**	-.405**
Work Satisfaction	JDI	-.147*	-.185*
Overall job satisfaction	JDI Total	-.201**	-.209*
Performance measures	Factorised Score	.140*	-.190*
	Effort	.080	-.125
	Errors	.141**	-.162
	Attitude	.097	-.181
	Willingness to work in groups	.186**	.195*

“***” = Significant at the .01 level

“**” = Significant at the .05 level