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THE ATTRACTION-SELECTION-ATTRITION MODEL OF ORGANIZATIONAL BEHAVIOR AND THE HOMOGENEITY OF MANAGERIAL PERSONALITY

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[146]

[147]

ABSTRACT

The present study examined the homogeneity hypothesis from Schneider's Attraction-Selection-Attrition Model (1987) by examining the relationship between the degree of variability in personality characteristics and organizational tenure. This issue was examined at both the individual and group levels of analysis. At the individual level, a pattern of decreasing variance in employee personality was found as organizational tenure increased though the differences among the tenure groups was not statistically significant. At the aggregate level, both statistically significant support and directional support was found for the homogeneity hypothesis.

INTRODUCTION

Organizations in the United States are becoming more diverse places in which to work (Jackson, 1992). Workforce diversity with respect to race, gender, and ethnicity has increased as a result of socio-cultural changes and is to some extent protected by law (e.g., Title VII of the Civil Rights Act of 1964). While demographic diversity in the workplace has become increasingly apparent in recent years, a range of individual differences in the values, beliefs, attitudes, and personalities of organizational members is assumed to have existed for some time. However, Schneider (1987, 1995) argues that the range of individual differences in the aforementioned psychological variables becomes less prevalent within organizations over time.

Schneider (1987) has proposed an attraction-selection-attrition (ASA) model for explaining organizational behavior. The fundamental proposition emerging from Schneider's work is that the processes of attraction to organizations, selection into organizations, and attrition from organizations will produce a restriction of range over time on a whole host of unspecified

individual differences variables (Schneider, 1987). Consequently, the people who remain in an organization will come to find themselves working with colleagues much like themselves because the "fit" is better. This has been referred to as the homogeneity hypothesis (Schneider, 1987). In general, Schneider suggests that the interactions among people with similar attitudes, values, and

[147]

[148]

personalities defines the nature of the organization in terms of its culture, climate, structure, and work processes (Schneider et al, 1995). This is distinct from earlier perspectives that suggest that places are "made" by organizational technology, the external environment, or organizational structure. The purpose of the present study is to investigate the extent to which the homogeneity hypothesis is operating among store managers of a book retailer.

Existing research relevant to the "homogeneity hypothesis" has been relatively limited (Schneider et al, 1995). An early study by Bretz, Ash, and Dreher (1989) attempted to examine the ASA model at the attraction stage. They conducted a laboratory study in which they presented subjects with descriptions of two organizations--one that emphasized rewards based on individual contributions and the other that rewarded contributions to the collective well-being of the organization. It was hypothesized that individuals selecting the organization that offered individually-based rewards would be higher in need for achievement and lower in need for affiliation than those selecting the organization that offered organizationally-oriented rewards. Support for the finding regarding need for achievement was marginally significant (Bretz et al, 1989).

Bretz et al. (1989) also compared the degree of variation on need for achievement and need for affiliation between those who choose the organization with the individually-oriented reward system and those who choose the organization with the collectively-oriented reward system. No differences in the degree of within-group variation were found. While it seems reasonable to expect mean differences in organizational levels on certain personality factors, there seems little reason to expect differences in variability across organizations on those same factors. While the ASA model does suggest that organizations will become different kinds of places over time as a result of the people in them (Schneider, 1987), the increasing homogeneity of a workforce is a within-organization phenomenon.

[148]

[149]

Research by Jordan, Herriot, and Chalmers (1991) also examined the homogeneity hypothesis. They tested for differences in personality across organizations as well as the interaction between organization and seniority hypothesizing that the more senior individuals in an organization should be closer to their organization's personality profile. While mean differences across organizations were found, they did not find support for the interaction of seniority and organization. It appears as though Jordan et al (1991) operationally defined seniority as level within the organization. Despite the organizations's policy of internal promotion, seniority and level within the organization are not necessarily synonymous constructs.

Additional research by Schneider and colleagues (Schneider, Smith, Taylor, & Fleenor, 1998) provides convincing support for the notion that organizations do tend to differ with respect to the personality characteristics of their members. This research was based on data from the Myers-Briggs Type Indicator (Myers & McCaulley, 1985) for over 12,000 managers across 142 organizations. A particularly strong feature of this research was the ability control for industry effects in testing the homogeneity hypothesis.

Other research has approached the test of the homogeneity hypothesis from the currently popular person-organization fit perspective. Day and Bedeian (1995) used the five-factor model of personality as the basis for testing a structural model of the effects of personality similarity on job satisfaction, job performance, and organization tenure. Conscientiousness similarity was the only factor hypothesized to be directly related to organization tenure. Curiously, this relationship was significant and negative suggesting that the lack of similarity (i.e., being either substantially higher or lower than co-workers) on conscientiousness was associated with organization tenure (Day & Bedeian, 1995).

Ostroff and Rothausen (1997) specifically addressed the relationship between tenure and fit. They argued that the fit between person and environment should be progressively better as organization tenure increases. Because the ASA framework suggests an aggregate level of data analysis, they further hypothesized that the relationship between fit and tenure would be stronger at the aggregate level than at the individual level. Fit was defined at both the individual and aggregate level as a series of correlations between multidimensional measures of climate and personal orientation. They found that for six of the nine correlational measures of fit, the expected pattern of increasing congruence as tenure increased was supported.

[149]

[150]

A more direct approach to examining the homogeneity hypothesis would be to directly compare the variability of individuals on different characteristics as a function of their tenure with an organization. It is clear from Schneider's work (1987, 1995) that individuals are expected to leave those organizations where the fit is poor. One might argue that it is the process of attrition that seems largely responsible for increasing workplace homogeneity. However, previous experimental research has tended to focus on the attraction stage of the ASA process. Bretz et al (1989) suggests the possibility of a cross-sectional analysis in which differences in means and variances on individual characteristics are compared for different levels of tenure. Ostroff and Rothausen (1995) created cross-sectional tenure groups but did not directly test for differences in the variability of the individual "personal orientations" measured as a function of tenure group membership. Instead, they examined a correlational measure of fit and its relationship to tenure. However, there is controversy in the literature about the most appropriate way to measure fit (e.g., Edwards, 1993).

In light of this review of the literature, it was hypothesized that there would be a significant relationship between the homogeneity of personality and organizational tenure. Specifically, there would be declining levels of personality variability as organizational tenure increased. This hypothesis was examined at the individual and group levels of analysis using a sample of retail store managers. Retail store managers are geographically separated from each other and have

less frequent contact with organizational representatives (i.e., district managers). To the extent that workforce homogenization would be more likely to occur in a workforce that has direct and frequent contact with each other, the use of a retail sample would appear to offer a strong test of the homogeneity hypothesis.

METHOD

Participants and Procedure

The participants for this study included 87 female retail store managers who attended a two-day management seminar sponsored by their employer. Tenure with the organization ranged from less than 2 months to 19 years ($M = 5.00$, $SD = 4.35$).

[150]

[151]

Each manager completed a self-report personality inventory as part of a three-hour session on interpersonal skills awareness. While attendance at the management seminar was required, completion of the personality inventory was entirely voluntary. Approximately 15 managers did not complete the personality inventory.

Measures

Personality. The measure of personality used in this study was the *Myers-Briggs Type Indicator* (MBTI) Form G (Myers & McCaulley, 1985). The MBTI is a personality instrument developed to measure the components of the theory of psychological types as first proposed by Jung (1921/1971). This measure of personality is widely used in organizational settings (Moore, 1987).

Psychological type theory suggests that behavior is governed by individual preferences for the use of perception and judgment (Myers & McCaulley, 1985). Specifically, the MBTI contains four separate bi-polar indices that reflect individual preferences for exercising perception and judgment. The sensing-intuition (SN) index reflects two means of perceiving the environment--through the five senses or through intuition. The thinking-feeling (TF) index reflects the means by which one judges what has been perceived--through logic or through a focus on personal or social values. The extraversion-introversion (EI) index is an "attitude" that reflects one's orientation of energy--either inward or outward. And the judging- perceiving (JP) index is intended to assess one's preference for using either judgment processes (thinking or feeling) or perceptive processes (sensing or intuition) in dealing with the outer world (Myers & McCaulley, 1985).

These four sets of preferences combine to yield 16 distinct personality types. In addition, it is possible to generate continuous scores for each dichotomy. The reliability of both type categories and continuous scores is acceptable (Myers & McCaulley, 1985). However, a recent review of the literature regarding management applications of the MBTI notes that the reliability of continuous scores is greater than that for type categories (Gardner & Martinko, 1996). The present research makes use of continuous scores.

[151]

[152]

The decision to use the MBTI for this research was made at the behest of the sponsoring organization. As discussed above, participants in this study were attending a two-day management seminar. During this seminar, participants were asked to complete the MBTI as part of an interpersonal skills/team-building session. While the MBTI has been criticized as an instrument not fit for serious research, recent work by Gardner and Martinko (1996) strongly encourages additional research with this measure. Furthermore, McCrae and Costa (1989) note that at least four of the five dimensions from the Five-Factor model have been extracted. While the use of another instrument may have been more appropriate (e.g., NEO-PI), recent research by Benjamin Schneider himself uses the MBTI in research addressing the homogeneity hypothesis (Schneider et al, 1998).

Tenure. Tenure was determined to be the difference in months between the date a subject participated in the interpersonal skills workshop and her date of hire.

Data Analysis

The homogeneity hypothesis was first examined by testing for differences in variances for personality across tenure groups (Bretz, Ash, & Dreher, 1989). To perform these tests, subjects were divided into three tenure categories (Ostroff & Rothausen, 1997)--low tenure (< 1.5 year), medium tenure (1.5 - 5 years), and high tenure (> 5 years). These tenure categories represent what is considered to be low, medium, and high tenure in this retail firm. Approximately one-quarter of the sample was in the high and low tenure groups respectively, with the remaining 50% of the sample constituting the medium tenure group.

Differences in tenure-group variances for personality were tested using Levene's test for homogeneity of variance (as cited in Wilkinson, Blank, and Gruber 1996). Levene's test involved computing four one-way ANOVA's using as the dependent variable in each analysis the absolute value of the residuals from ANOVA's that would be computed to test for mean differences between tenure groups (Wilkinson et al, 1996).

[152]

[153]

The relationship between tenure and homogeneity of personality can also be examined at the aggregate level using a correlational strategy. Each of the 87 stores whose managers provided data for this study are assigned to one of 18 districts within the retail chain. Correlational analyses were performed to examine the relationship between the mean tenure level within-districts and the within-district variance on each of the indices of the MBTI. A negative relationship was anticipated in line with Schneider's ASA model, i.e., increasing levels of mean within-district tenure should be associated with decreasing levels of within-district variance for the personality measures.

RESULTS

The means, standard deviations, and variable intercorrelations are reported in Table 1. Only two of the correlations reached statistical significance. The significant correlation between tenure and the continuous score SN is interpreted to mean that increasing levels of tenure are associated with a preference for sensing while decreasing levels of tenure are increasingly associated with a preference for intuition.

Table 1. Descriptive Statistics and Variable Intercorrelations

Variable	N	Mean	SD	1	2	3	4	5
1. Extraversion-Introversion	87	99.41	24.20	1.00				
2. Sensing-Intuiting	87	93.60	24.35	-0.14	1.00			
3. Thinking-Feeling	87	95.94	21.85	0.13	-0.17	1.00		
4. Judging-Perceiving	87	89.14	25.02	-0.01	0.42**	0.08	1.00	
5. Tenure^a	82 ^b	60.07	52.70	0.13	-0.25*	0.04	-0.03	1.00

Note. Positive correlations are associated with the I, N, F, and P, and negative correlations are associated with E, S, T, and J.

^aTenure is recorded in months on the job. ^bSpecific tenure data was not available for five subjects who completed the MBTI. However, in each case, their tenure is known to be less than one year. Data for these five subjects is included in subsequent ANOVA's but not in correlational analyses.

* $p < .05$. ** $p < .01$.

[153]

[154]

The results of the Levene's tests for homogeneity of variance are contained in Table 2. A pattern of differences in variances across tenure groups consistent with the homogeneity hypothesis was observed for the continuous MBTI indices SN, TF, and JP, however, none of the within-scale differences were significant. Curiously, a pattern of variances opposite to that expected (i.e., increasing variances as tenure increased) was observed for the EI scale though none of the within-scale differences were significant.

Table 2. Levene's Tests for Homogeneity of Variance

	Low Tenure	Medium Tenure	High Tenure
N	19	42	26
Extraversion-Introversion Variance	498.877 $F = 2.308$	515.003 $p = .137$	808.098
Sensing-Intuition Variance	710.035 $F = .680$	564.787 $p = .509$	533.120

Thinking-Feeling Variance	583.930 <i>F</i> = .132	505.886 <i>p</i> = .877	385.434
Judging-Perceiving Variance	883.509 <i>F</i> = .967	651.374 <i>p</i> = .385	431.902

Table 3 presents the results of the correlational analyses performed to examine the relationship between the mean tenure level within districts and the variance on each of the continuous score indices of the MBTI. As hypothesized, variability for the continuous score JP was significantly and negatively correlated with mean tenure level within district. More specifically, as mean level of tenure within districts increased, individuals within the district were seen to be more homogenous with respect to the continuous score JP relative to the members of other districts. Though not significant, the relationships between within-group variability for the continuous scores SN and TF were negatively related to mean tenure level within districts as hypothesized. Opposite to what was hypothesized however, there was a significant and positive relationship between variability on the EI continuous score and mean tenure level within districts.

[154]

[155]

Table 3. Intercorrelations among within-district variances for personality variables and mean levels of tenure

Variable	1	2	3	4	5
1. Extraversion-Introversion	1.00				
2. Sensing-Intuiting	-0.32	1.00			
3. Thinking-Feeling	-0.08	-0.41	1.00		
4. Judging-Perceiving	-0.41	0.03	-0.03	1.00	
5. Tenure	0.63*	-0.25	-0.23	-0.61*	1.00

Note. Sample size for this analysis is 15 districts consisting of a total of 74 individual managers. The number of managers whose data was used for this analysis is smaller than the sample sizes reported in table 1. This reflects the fact that specific tenure data was not available for five managers. Additionally, the data from eight managers was eliminated from the analysis because their district affiliation was not known or because they were the only manager known to be associated with a district, thus resulting in no within-district variance for those districts. Values in the table refer to correlations between tenure and the variance of each of the variables listed.

Positive correlations are associated with the I, N, F, and P, and negative correlations are associated with E, S, T, and J.

* $p < .05$

DISCUSSION

This research sought to examine the homogeneity hypothesis as one element of Schneider's ASA model by addressing the extent to which a relationship exists between the degree of variability in

personality characteristics and organizational tenure. This phenomenon was examined at both the individual and group levels of analysis.

[155]

[156]

At the individual level of analysis, a pattern of results consistent with the homogeneity hypothesis was observed, though the differences within-scales were not statistically significant. At the group level of analysis, support was found for the hypothesis that there is an inverse relationship between within-group variability of personality and mean levels of tenure within groups for the continuous score JP. Correlations between mean tenure within-groups and within-group variability for the continuous scores SN and TF were in the predicted direction (i.e., negative) but did not reach statistical significance.

Contrary to expectations, the correlation between mean tenure within-groups and the within-group variability on the continuous EI index was positive and significant. This suggests that as tenure increases within-districts so does variability on the EI index. One might infer from Schneider's work that the decision to remain with an organization is about both "fitting in" and performing well. It may be that certain personality variables are unrelated to performance and are thus less subject to the operation of the homogeneity hypothesis. Success as a bookstore manager is based on achieving results, and results can seemingly be achieved in ways unrelated to this particular personality characteristic, thus resulting in increased variability on the EI index over time. Existing research does not address this interpretation however. Future research should examine the extent to which there are certain personality characteristics that are less susceptible to the operation of the homogeneity hypothesis. The remainder of this discussion addresses the implications of this research and the limitations of this study.

The ability of retail organizations to cope with the changing nature of retailing is likely to be significantly impacted by the increasing homogenization of internal work forces. The industry is experiencing tremendous change with the advent of internet retailing. If organizations are to adapt to this change, it is important to promote a diversity of thinking. It is interesting to note that many start-up firms geared specifically to selling on the internet have garnered a larger market share in that arena for their particular product than those traditional firms who dominate the over-the-counter market. ASA theory suggests that a possible reason for such developments is the inability of traditional firms to adapt to market conditions.

[156]

[157]

While there are undoubtedly some negative implications to increasing workforce homogeneity, these may be confined to higher level positions in the organization where the need for "thinking outside the box" is more critical to organizational survival. However, at lower levels, an increasing level of homogeneity on certain service-oriented personality variables (e.g., agreeableness, conscientiousness) may translate into consistent levels of service quality among front-line employees. Regardless, the specific influence of employee homogeneity on organizational performance must take into consideration the mean level around which employee

homogeneity centers. Employee homogeneity centered around a low mean level of agreeableness may result in a consistently lower level of service quality than desired by management.

It is important to note in interpreting the results of this study, particularly the group level results, that retail store managers whose stores are in the same district rarely have contact with one another. Direct contact with the organization and its culture and values happens as a result of individual and relatively infrequent encounters with district managers. One might assume that sustained contact with organizational representatives is necessary for the attraction-selection-attrition process to play itself out. The results of this research suggest that such contact, while likely contributing to this process, is not solely responsible for it. Future research should examine the extent to which frequency of contact with organizational representatives influences the degree and speed with which the process of group homogeneity unfolds.

This study has limitations that need be considered in interpreting the findings. The sample for the group level of analysis (N = 15) is particularly small. As a consequence, the power of this research was low. In addition, the subject pool was all female. It is unclear about the extent to which the process of homogeneity proceeds differently for males and females. The sample of current employees confounds the effects of attraction, selection, and attrition on homogeneity, though Schneider et al (1995) suggests that efforts to tease apart these components may be inappropriate. Also, the study employs a cross-sectional design. A better test of the homogeneity hypothesis would involve conducting a longitudinal study in which the cohorts experienced a common set of organizational events. Finally, it is unclear what impact increasing levels of workforce homogeneity have on group or organizational performance. Despite these limitations, this study provides additional evidence to support the homogeneity hypothesis in a setting where this process might have been less likely to occur.

[157]

[158]

REFERENCES

Bretz, R. D., Ash, R. A., & Dreher, G. F. (1989). "Do the people make the place: An examination of the attraction-selection-attrition hypothesis." *Personnel Psychology*, 42:561-581.

Day, D. V., & Bedeian, A. G. (1995). "Personality similarity and work-related outcomes among African-American nursing personnel: A test of the supplementary model of person-environment congruence." *Journal of Vocational Behavior*, 46:55-70.

Edwards, J. R. (1993). "Problems in the use of profile similarity indices in the study of congruence in organizational research." *Personnel Psychology*, 46:641-666.

Gardner, W. L., & Martinko, M. J. (1996). "Using Myers-Briggs Type Indicator to study managers: A literature review and research agenda." *Journal of Management*, 22:45-83.

Jackson, S. E. (Ed.) (1992). *Diversity in the workplace: Human resources initiatives*. New York: Guilford.

Jordan, M., Herriot, P., & Chalmers, C. (1991). "Testing Schneider's ASA theory." *Applied Psychology: An International Review*, 40:47-54.

Jung, C. G. (1971). *The collected works of C. G. Jung, Vol. 6: Psychological types* (trans. H. G. Baynes, revised by R. F. Hull). Princeton, NJ: Princeton University Press (originally published in 1921).

McCrae, R. R., & Costa, P. T. (1989). "Reinterpreting the Myers-Briggs Type Indicator from the perspective of the five-factor model of personality." *Journal of Personality*, 57:17 - 40.

Moore, T. (1987, March 30). "Personality tests are back." *Fortune*, 74-78.

[158]

[159]

Myers, I. B., & McCaulley, M. H. (1998). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.

Ostroff, C., & Rothausen, T. J. (1997). "The moderating effects of tenure in person-environment fit: A field study in educational organizations." *Journal of Occupational and Organizational Psychology*, 70:173-188.

Schneider, B. (1987). "The people make the place." *Personnel Psychology*, 40:437-453.

Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). "The ASA framework: An update." *Personnel Psychology*, 48:747-773.

Schneider, B., Smith, D. B., Taylor, S., & Fleenor, J. (1998). "Personality and organizations: A test of the homogeneity of personality hypothesis." *Journal of Applied Psychology*, 83:462 - 470.

Wilkinson, L., Blank, G., & Gruber, C. (1996). *Desktop data analysis with Systat*. Upper Saddle River, NJ: Prentice Hall.

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[159]