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PERSON-ENVIRONMENT FIT, BEHAVIORAL ORIENTATION, AND SUBJECTIVE ADJUSTMENT: A TEST OF THE GOODNESS-OF-FIT HYPOTHESIS IN UNIVERSITY STUDENTS

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ABSTRACT

The purpose of this study was to examine the effect of person-environment fit on behavioral orientation and subjective adjustment. First, we developed Adjustment Oriented Behavior Scale to assess adjustment related behavioral orientation. Data analysis indicated that the Scale had three factors, and reliability of each subscale was acceptable. Next, we examined the effect of person-environment fit on behavioral orientation and school adjustment, and then the effect of behavioral orientation on school adjustment. Results showed that the effect of person-environment fit on school adjustment was mediated by behavioral orientation. The discrepancy score between psychological need and environment demand influenced three types of behavior orientation. The higher the socially active orientation, and the lower the socially subordinate orientation, the higher the subjective feeling of school adjustment. Academic achievement orientation did not influence the adjustment. In sum, we found that poor fit between person and environment motivated the person to choose certain types of behavior, which in turn succeeded or failed to increase subjective adjustment.

Key Words: goodness-of-fit hypothesis, subjective adjustment, psychological needs, university students

INTRODUCTION

Adjustment problems in university students have frequently been attributed to person variables, and in most previous research, only such person variables as personality traits and personal needs were used to predict university adjustment (for example, see Asakawa, Kogawa & Takebara, 2005). However, the concept of adjustment must be defined in terms of the interaction between the person and his/her environment (Okubo, 2005). It follows that it is necessary to incorporate the person-environment interaction, rather than using personal attributes alone, to predict the person's adjustment.

The person-environment interaction has previously been summarized and indexed variously as "person-environment fit" (French, Rodgers & Cobb, 1974; Kulka, Klingel & Mann, 1980) or "goodness of fit" (Lerner, 1983; Lerner, Baker & Lerner, 1985). Although

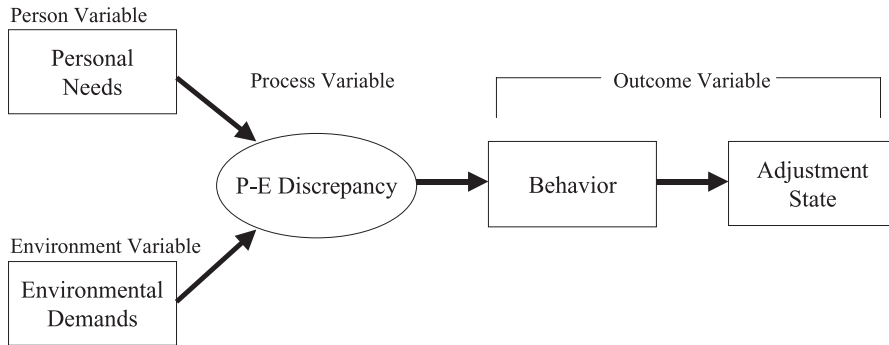


Figure 1 A simplified model of the relationship between person-environment discrepancy, behavior, and adjustment state.

different terms are used, they are almost synonymous in our purpose (Okubo, 2002). Goodness of fit might be construed as a process variable in Kurosawa's (1995) process interactionism, which attempted to explain the interaction effect of person and environment on behavior and adjustment.

Based on Kuika, Klingel and Mann's model (1980), person-environment fit as a process variable, and behavior orientation and adjustment state as outcome variables are shown in Figure 1, which was also discussed in Okubo (2002). First of all, the person finds him/herself confronted with the discrepancy between psychological needs and environmental demands. Although there might be situations where psychological needs are already nearly in harmony with environmental demands from the beginning, it is more likely that certain degree of discrepancy exists between psychological needs and environmental demands. Such discrepancy could motivate the person to behave in certain ways, which in turn should influence the outcome adjustment state. In this model, initial discrepancy between person and environment influences behavior orientation, which in turn result in more or less subjectively adjusted state (Okubo, 2002).

Although we have examined the relationship between person-environment fit and adjustment state from the viewpoint (Okubo & Kato, 2005; Okubo, Kato & Kurosawa, 2006), we have not examined the relationship between person-environment fit and behavior. When the fit is poor, the outcome adjustment state must depend on how the person reacts and behaves in the situation. In short, depending on reaction and behavior, outcome adjustment state could be better even if initial fit is poor. Therefore, we need to examine the relationship between person-environment fit, behavioral orientation and adjustment state.

The purpose of this study was to examine the effect of person-environment fit on behavior and adjustment. Specifically, we developed Adjustment Oriented Behavior Scale, and then collected relevant data. We calculated discrepancy score, and examined the relationship between person-environment fit, adjustment oriented behavior, and subjective adjustment. Following the study by Okubo and Kato (2005), we chose psychological needs of self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000) as person variable. Through mediation by behavior, psychological needs have been shown to affect

adjustment (Connell & Wellborn, 1991); therefore, the choice of person variable should be especially appropriate for an examination of the relationship.

METHOD

Participants

In the study, 359 university students, 180 men and 179 women, in the Tokyo metropolitan area participated.

Procedure

Development of Adjustment Oriented Behavior Scale

We obtained open-ended answers from 38 university students, 20 men and 18 women, to our question, "What is your behavior intended for you to adjust to the university environment?" Three graduate students in psychology examined the answers, and cooperatively composed 30 items for Adjustment Oriented Behavior Scale.

Psychological Needs Scale

Participants completed 20-item Psychological Needs Scale, developed in the study by Okubo and Kato (2005). They chose from 5-point alternatives of 'None' to 'Very strong.'

Environmental Demands Scale

Demands were assessed in the context of the university environment. Questions were phrased according to the following format: "My school wants me to". The Environmental Demands Scale was composed, corresponding to the items of Psychological Needs Scale. The items had 5-point alternatives of 'None' to 'Very strong.'

Discrepancy Score

To assess person-environment match, goodness of fit, discrepancy score were calculated by subtracting environmental demand scores from psychological need scores (Okubo & Kato, 2005). The scores indicated discrepancy between person and environment, with high scores indicating a maximum amount of mismatch between person and environment, and low scores a minimum amount. The procedure for obtaining discrepancy score was the same as those used in previous studies (Okubo & Kato, 2005; Okubo, Kato & Kurosawa, 2006).

Assessment of subjective adjustment

The 30-item Subjective Feeling of Adjustment Scale developed by Okubo (2005) was used to assess participants' adjustment state. They chose from 5-point alternatives of 'Not at all' to 'Very much.'

RESULTS AND DISCUSSION

Factor analysis of Adjustment Oriented Behavior Scale

Factor analysis, with principal factor extraction and varimax rotation, of the 30 initial items found three factors with 25 items (see Table 1): social activeness, social subordination, and achievement aggressiveness. Cronbach's alpha coefficients were .790, .766, and .781, respectively, and reliability of the Scale was sufficiently high.

Table 1 Results of factor analysis of Adjustment Oriented Behavior Scale

Scale/Item	Loadings on Factors:	F1	F2	F3
F1 Social activeness ($\alpha = .790$)				
I try to start conversations with people around me.		.654	-.096	.142
I try to interact cheerfully with others.		.650	.080	.112
I actively participate in various events.		.592	.026	.201
I try to make conversations lively.		.557	-.064	.127
I am trying to do many things with others.		.509	-.191	.221
I am looking for persons whom I can get along well.		.490	.200	-.071
I value cooperative relationship.		.488	.262	.024
I am looking for persons who have the same interest as mine.		.440	.071	.042
I am asserting myself.		.437	-.298	.283
Ⓡ I am making myself inconspicuous.		-.405	.260	.058
Ⓡ I am not doing anything until being invited.		-.400	.330	-.043
F2 Social subordination ($\alpha = .766$)				
I conform to opinion and behavior of others.		.178	.721	-.041
I am acting as if every one already accepted me.		-.135	.631	.071
I am pretending that I am happy.		-.013	.614	.091
I am waiting for someone to talk to me.		.029	.531	-.099
I am doing and saying the same as others.		.253	.520	-.007
Ⓡ I am behaving as I like.		.061	-.510	.089
Ⓡ I am doing what I want to do.		.298	-.429	.224
F3 Achievement aggressiveness ($\alpha = .781$)				
I try to be friendly with teachers.		.038	-.036	.673
I speak frequently with teachers.		.001	-.061	.673
I ask teachers any time I feel I don't understand.		-.031	-.155	.654
I am studying very hard.		.055	.011	.516
I am actively participating in the class.		.329	-.018	.503
I try to attend every class.		.214	.112	.472
I always complete my homework.		.307	.051	.410
Eigenvalues		4.857	3.348	2.431
Variance accounted fo		19.428	13.393	9.724
Cumulative variance accounted for		19.428	32.821	42.544

In order to examine gender differences, t-test was performed on three subscores of Adjustment Oriented Behavior Scale (see Table 2). For social activeness, women were significantly higher than men ($t=4.142$, $df=354$, $p<.01$). The result indicated that women tended to behave more actively in order to make relationship with others, reflecting a stronger need for social relationship. The finding was consistent with a previous study (Okubo & Kato, 2005).

Table 2 Means and standard deviation and t test for Adjustment Oriented Behavior subscales

	Men (N=180)	Women (N=179)	t-value
Social activeness	31.381 (7.432)	33.235 (6.785)	4.142**
Social subordination	19.140 (4.264)	19.015 (3.712)	0.498
Achievement aggressiveness	20.656 (5.023)	20.708 (4.427)	0.175

(SD) $df=357$

** $p<.01$

Person-environment fit, behavioral orientation, and adjustment state

Correlation coefficients between discrepancy score, Adjustment Oriented Behavior Scale score, and Subjective Feeling of Adjustment Scale score were calculated (see Table 3). As in the study by Okubo and Kato (2005), discrepancy score and subjective adjustment had a significant negative correlation. The result showed that persons with good fit between psychological need and environmental demand were better adjusted than those with poor fit, confirming the goodness of fit hypothesis.

Table 3 Correlation coefficient between discrepancy score, and Adjustment Oriented Behavior Scale, and subjective feeling of adjustment

	I	II	III	IV
I Discrepancy score				
II Social activeness	-.162**			
III Social subordination	-.132*	.001		
IV Achievement aggressiveness	-.178**	.341**	-.035	
V Subjective feeling of adjustment	-.255**	.542**	-.137**	.296**

*p<.05 **p<.01

In the next step, path analysis was performed to examine the effect of person-environment fit on behavioral orientation and subjective adjustment state (see Figure 2). Results indicated that discrepancy score negatively influenced three subscales of adjustment behavioral orientation: social activeness ($\beta = -.162, p < .01$), social subordination ($\beta = -.132, p < .01$), and achievement aggressiveness ($\beta = -.178, p < .01$). In turn, social activeness positively influenced subjective feeling of adjustment ($\beta = .484, p < .01$), while social subordination negatively influenced it ($\beta = -.148, p < .01$). On the other hand, achievement aggressiveness did not significantly influence it ($\beta = .076, n.s.$). Thus, the effect of discrepancy score on subjective adjustment was mediated by behavioral orientation. Moreover, a direct path from discrepancy score to subjective feeling adjustment was also significant ($\beta = -.179, p < .01$), which was consistent with the findings in previous research (Okubo & Kato, 2005; Okubo, Kato & Kurosawa, 2006).

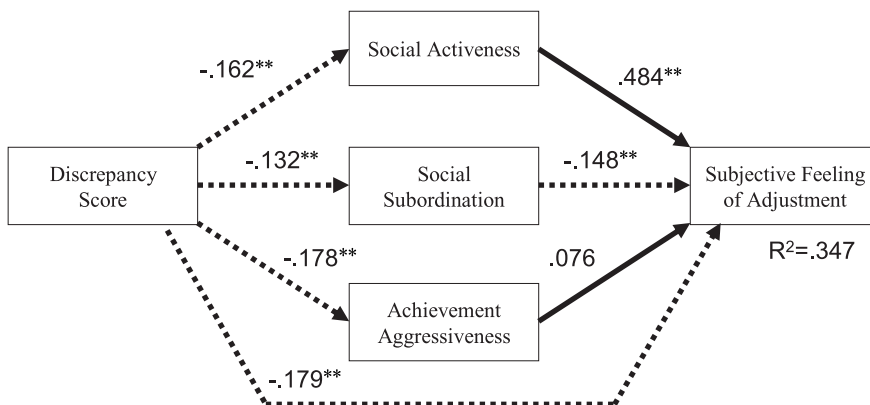


Figure 2 The relationship among discrepancy scores, adjustment oriented behavior, and subjective feeling of adjustment.

In sum, we found that in university students, the effect of poor fit between psychological need and environmental demand on school adjustment was mediated by behavioral orientation. In other words, poor fit between person and environment motivated the person to choose certain types of behavior, which in turn succeeded or failed to increase subjective adjustment.

GENERAL DISCUSSION

In this study, we first developed Adjustment Oriented Behavior Scale to assess behavior orientation toward adjustment, examined its reliability, and looked at gender differences. Results showed that Adjustment Oriented Behavior Scale had three factors and sufficient reliability. Next, we examined the relationship among person-environment fit, adjustment behavioral orientation, and adjustment state. Results indicated that the effect of poor fit between person and environment on adjustment state was mediated by behavior orientation. The discrepancy between the two influenced three types of behavior orientation. It was suggested that poor fit between person and environment motivated the person to choose certain types of behavior. Then, results showed that the higher the socially active orientation, and the lower the socially subordinate orientation, the higher the subjective feeling of adjustment. The failure of achievement aggressiveness to influence subjective feeling of adjustment might reflect the culture of Japanese university, where academic achievement per se was not necessarily valued. In the end, we found results that poor fit between person and environment motivated the person to choose certain types of behavior, which in turn succeeded or failed to increase subjective adjustment.

The current results showed that poor fit between person and environment motivated the person to behave in certain ways, and then adjustment state changed depending on the types of behavior the person choose. Because it was shown that poor fit lead not only to socially active but also to socially subordinate behavior, the type of behavior the person chose appeared to be crucial. Moreover, since choice of behavior orientation could possibly change adjustment state, our results should offer hopes to those who are struggling with own poor person-environment fit.

For future research, it might be necessary to try to describe the change course from poor fit between person and environment to more adjusted state. For example, due to some events, chances to change adjustment state might emerge. Therefore, it might be necessary to examine in more details how the relationship between person and environment change (Okubo & Kurosawa, 2003), and what chances could lead the person to more adjusted state.

Also, this study was conducted at a private university in the Tokyo metropolitan area, but many different universities exist in Japan, and each has its own numerous characteristics. Considering the universities' characteristics, and mindful of student diversity within each, it might be advisable to examine the problem of university adjustment in a wider context of many more different locations and institutions.

Finally, although this study focused on psychological needs, it might be productive to pay attention to other person variables. Recently, problems of adjustment are often discussed in the context of interpersonal ability, such as social skills, such person vari-

ables may be the next to study.

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