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Short Communication

Psychological Detachment from Work during Off-job Time: Predictive Role of Work and Non-work Factors in Japanese Employees

Akihito SHIMAZU[1]*, Jan DE JONGE[2, 3], Kazumi KUBOTA[1] and Norito KAWAKAMI[1]

[1] Department of Mental Health, The University of Tokyo, Japan
[2] Human Performance Management Group, Department of Industrial Engineering and Innovation Sciences, Eindhoven University of Technology, The Netherlands
[3] School of Psychology, Centre for Applied Psychological Research, Work and Stress Research Group, University of South Australia, Australia

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Abstract: Psychological detachment from work, an off-job experience of "switching off" mentally, seems to be crucial for promoting employee's well-being. Previous studies on predictors of psychological detachment mainly focused on job-related factors, and only a few studies focused on family-related and personal factors. This study focuses not only on job-related factors (job demands, job control, workplace support) but also on family-related (family/friend support) and personal factors (workaholism), and examines the relation of these three factors with psychological detachment. Data of 2,520 Japanese employees was randomly split into two groups and then analyzed using cross-validation. Hierarchical multiple regression analyses revealed that family/friend support had a positive association with psychological detachment, whereas a subscale of workaholism (i.e. working compulsively) had negative associations with it across the two groups. Results suggest that family/friend support would facilitate psychological detachment whereas workaholism would inhibit it.

Key words: Japanese employees, Psychological detachment, Recovery experiences, Social support, Workaholism

Due to today's 24/7 economy, traditional boundaries between work and personal life are becoming increasingly blurred. In addition, information technology provides the opportunity to complete one's work outside companies' office and even beyond traditional work hours[1)]. These changes in working conditions need a better understanding not only of how employees spend their working time (on-job experiences) but also of how they spend their private or leisure time (off-job experiences). More specifically, better knowledge about off-job recovery from demands experienced during working time is badly needed.

Recovery can be defined as a process in which the psychophysiological systems that were activated during work which will return to, and stabilize at, a baseline level[2)]. Specifically, recovery refers to the process during which an individual's functioning returns to its pre-stressor level and in which strain is reduced[3)]. In this way, recovery can be regarded as a process opposite to the strain process during which the detrimental effects of stressful situations are alleviated or eliminated. Recovery is also regarded as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment[4)].

*To whom correspondence should be addressed.
E-mail: ashimazu@m.u-tokyo.ac.jp

The mechanisms contributing to recovery are called *recovery experiences* and include psychological detachment, relaxation, mastery experience, and control[2]. Psychological detachment, i.e. the ability of individuals to mentally "switch off" from work by not doing work-related tasks and not thinking about work during non-work time, is considered the most crucial recovery experience for protecting one's well-being as far as job-related recovery is concerned[5]. Psychological detachment from work goes beyond the pure physical absence from the workplace during off-job time and abstaining from job-related tasks. It implies leaving the workplace behind oneself in psychological terms[6]. From a neurophysiological point of view, detaching from work during off-job time increases the chances that two psychophysiological stress systems (i.e. hypothalamic-pituitary-adrenal (HPA) and sympathetic-adrenal-medullary (SAM) systems) are down-regulated[7]. However, when individuals do not detach and are still thinking about job-related issues, these two stress systems are continuously challenged and no full recovery can occur[2]. This suggests that identifying the adequacy of psychological detachment between successive sequences of acute work-related stress is of considerable value in developing a more complete understanding of the transition from acute stress to maladaptive health outcomes[7].

Previous research on recovery experiences has focused mainly on the relation with their consequences, such as psychological and physical health, work engagement, and job performance[2, 5, 8, 9], and little research has addressed their potential antecedents[2, 10]. So far, job characteristics (e.g., job demands, job control) and personal characteristics (e.g., workaholism, personality, coping) are revealed to be potential antecedents of detachment[2, 10]. However, off-job characteristics, such as social support from family and friends, have not been examined[2]. Moreover, most previous research was conducted in Western countries, and further research is needed to determine whether these findings can be generalized to non-Western countries such as Japan. Since Japanese employees work in general longer[11] and also do not use up their paid holidays[12] than employees in other Western and non-Western countries, their off-job activities seem to be crucial for their health and well-being.

The aim of this study is to examine the relation between psychological detachment and its potential work- and non-work-related antecedents among Japanese employees using cross-validation. This study focuses on job demands, job control and workplace support as job characteristics, family/friend support as an off-job characteristic, and workaholism as a personal characteristic on the basis of previous recovery research.

A cross-sectional internet survey was conducted among registered monitors of a survey company in Japan. A total of 13,564 monitors with occupations, who were matched in age, gender and resident area to a Japanese representative sample, were randomly invited to participate in the survey. The recruitment stopped after the number of participants exceeding 2,520 due to budgetary constraints of the project. The mean age of the participants was 44.4 yr (SD=12.9). Of the participants, 49.9% were male, 61.9% were married, 45.4% had a university degree or higher, 70.7% were white collar workers, 17.7% were shift workers, and 53.5% were regular workers. The mean working time per week was 37.2 h (SD=24.9). The procedures were approved by the ethics review board of the University of Tokyo before the start of the study.

Psychological detachment was assessed using the corresponding subscale of the Japanese version of the Recovery Experience Questionnaire[9] consisting of 4 items (i.e., 'I forget about work', 'I don't think about work at all', 'I distance myself from my work', and 'I get a break from the demands of work'). All items were scored on a five-point Likert scale, ranging from 1 (do not agree at all) to 5 (fully agree). *Job demands* were assessed using the corresponding subscale of the Brief Job Stress Questionnaire (BJSQ)[13] consisting of 3 items. Items were scored on a four-point Likert scale, ranging from 1 (disagree) to 4 (agree). *Job control* was assessed using the corresponding subscale of the BJSQ[13] consisting of 3 items. *Workplace support* was assessed using the corresponding subscales of the BJSQ[13] consisting of 6 items: 3 items for the supervisor and 3 items for the coworkers. In order to avoid multicollinearity, we combined the two subscales in overall workplace support due to high correlations between them (r=0.67). *Family/friend support* was assessed using the corresponding subscale of the BJSQ[13] consisting of 3 items. Items were scored on a four-point Likert scale, ranging from 1 (disagree) to 4 (agree). *Workaholism* was assessed using a Japanese version of the Dutch Workaholism Scale[14]. The scale consists of two different subscales: working excessively and working compulsively. Each subscale consists of 5 items, which were scored on a four-point Likert scale, ranging from 1 (totally disagree) to 4 (totally agree). Please note that alpha coefficients for each scale were quite identical across groups (Table 1). *Demographic variables* were included as possible confounders in the analyses (Table 1).

Hierarchical multiple regression analyses with cross-validation were carried out on the psychological detach-

Table 1. Means, SD, internal consistencies (Cronbach's alpha on the diagonal) and correlations of the variables used in the study in two randomized groups (Total n=2,520) [a)]

	Measures	Group 1 (n=1,260)		Group2 (n=1,260)		1		2		3		4		5		6		7	
		Mean	SD	Mean	SD														
1	Age	44.2	12.93	44.7	12.65			–0.04		–0.37	***	–0.04		0.02		–0.12	***	–0.06	*
2	Gender [b)]	1.5	0.50	1.5	0.50	–0.03				0.12	***	–0.28	***	0.01		0.14	***	–0.28	***
3	Marriage [c)]	1.4	0.48	1.4	0.48	–0.40	***	0.11	***			0.02		0.04		0.02		0.03	
4	Education [d)]	1.5	0.50	1.5	0.50	–0.06	*	–0.25	***	0.00				–0.28	***	–0.10	***	0.11	***
5	Occupation [e)]	1.3	0.45	1.3	0.45	0.02		–0.03		0.02		–0.27	***			0.20	***	–0.11	***
6	Shift work [f)]	1.2	0.38	1.2	0.38	–0.11	***	0.14	***	0.07	**	–0.13	***	0.24	***			–0.10	***
7	Working hours (per week)	37.7	30.05	37.0	21.48	–0.04		–0.19	***	0.02		0.09	***	–0.08	**	–0.08	**		
8	Job contract [g)]	1.5	0.50	1.5	0.50	0.24	***	0.31	***	0.01		–0.20	***	0.19	***	0.12	***	–0.23	***
9	Job demands	2.5	0.76	2.5	0.76	–0.17	***	–0.08	**	0.08	**	0.09	**	–0.04		0.08	**	0.20	***
10	Job control	2.7	0.69	2.7	0.69	0.21	***	–0.14	***	–0.08	**	0.06	*	–0.18	***	–0.20	***	0.01	
11	Workplace support	2.3	0.68	2.3	0.68	–0.06	*	–0.01		–0.07	*	0.06	*	–0.10	***	0.00		0.00	
12	Family/friend support	3.0	0.77	3.0	0.77	0.00		0.16	***	–0.16	***	0.02		–0.08	**	0.01		–0.06	*
13	Working excessively	2.0	0.72	2.0	0.71	–0.11	***	–0.11	***	0.04		0.07	*	–0.02		0.07	**	0.20	***
14	Working compulsively	1.9	0.62	1.9	0.60	–0.10	***	–0.04		0.02		0.01		0.03		0.07	*	0.08	**
15	Psychological detachment	3.4	0.88	3.4	0.89	–0.01		0.12	***	0.02		–0.02		0.01		0.06	*	–0.05	

	Measures	8		9		10		11		12		13		14		15	
1	Age	0.23	***	–0.21	***	0.16	***	–0.08	**	–0.01		–0.13	***	–0.07	*	–0.01	
2	Gender [b)]	0.38	***	–0.17	***	–0.16	***	–0.02		0.10	***	–0.15	***	–0.08	**	0.13	***
3	Marriage [c)]	–0.05		0.04		–0.09	***	–0.07	**	–0.18	***	0.01		–0.01		0.06	*
4	Education [d)]	–0.21	***	0.13	***	0.05		0.04		0.03		0.10	***	0.05		–0.05	
5	Occupation [e)]	0.21	***	–0.06	*	–0.14	***	–0.14	***	–0.11	***	–0.04		0.05		–0.02	
6	Shift work [f)]	0.11	***	0.04		–0.21	***	–0.02		0.01		0.06	*	0.04		0.02	
7	Working hours (per week)	–0.30	***	0.22	***	0.08	**	0.01		–0.07	*	0.22	***	0.07	*	–0.08	**
8	Job contract [g)]			–0.23	***	–0.05		–0.10	***	0.07	*	–0.19	***	–0.09	**	0.01	
9	Job demands	–0.21	***	(0.81/0.81)		–0.07	**	–0.02		–0.11	***	0.61	***	0.40	***	–0.18	***
10	Job control	–0.04		–0.11	***	(0.75/0.74)		0.22	***	0.08	**	–0.03		–0.04		0.00	
11	Workplace support	–0.14	***	0.04		0.21	***	(0.88/0.87)		0.44	***	0.02		–0.03		0.06	*
12	Family/friend support	0.06	*	–0.04		0.10	***	0.46	***	(0.86/0.85)		–0.08	**	–0.08	**	0.18	***
13	Working excessively	–0.18	***	0.60	***	–0.08	**	0.04		–0.07	*	(0.80/0.79)		0.62	***	–0.26	***
14	Working compulsively	–0.09	***	0.38	***	–0.08	**	–0.02		–0.07	**	0.64	***	(0.74/0.72)		–0.28	***
15	Psychological detachment	0.02		–0.16	***	0.01		0.13	***	0.21	***	–0.20	***	–0.28	***	(0.85/0.86)	

*** $p<0.001$ ** $p<0.01$ * $p<0.05$. Correlations are presented below the diagonal for the Group 1 and above the diagonal for the Group 2. Cronbach's alpha coefficients for the Group 1 and the Group 2 are displayed before and after slash in parentheses, respectively. [a)] Responses for the items were summed and averaged to get an average sumscore for job demands, job control, workplace support, family/friend support, working excessively, and working compulsively, respectively. [b)] Gender was coded as 1 (men) and 2 (women). [c)] Marriage was coded as 1 (yes) and 2 (no). [d)] Education was coded as 1 (college or lower) and 2 (university or higher). [e)] Occupation was coded as 1 (white collar) and 2 (blue collar). [f)] Shift work was coded as 1 (no) and 2 (yes). [g)] Job contract was coded as 1 (regular worker) and 2 (others).

Table 2. Hierarchical multiple regression analyses predicting psychological detachment scores from demographics, work-related, family-related, and personal factors (n=2,520) [a)]

Step	Predictors	Group 1 (n=1,260)								Group 2 (n=1,260)							
		I		II		III		IV		I		II		III		IV	
1	Age	0.01		0.00		0.02		0.01		0.03		0.01		0.02		0.02	
	Gender [b)]	0.13	***	0.12	***	0.09	**	0.09	**	0.12	***	0.10	**	0.09	**	0.08	**
	Marriage [c)]	0.01		0.03		0.06		0.05		0.05		0.06		0.09	**	0.08	**
	Education [d)]	0.02		0.02		0.01		0.01		–0.03		–0.01		–0.02		–0.02	
	Occupation [e)]	0.01		0.01		0.02		0.03		–0.03		–0.02		–0.01		0.00	
	Shift work [f)]	0.05		0.06	*	0.06	*	0.07	*	0.01		0.02		0.02		0.03	
	Working hours (per week)	–0.04		0.00		0.00		0.00		–0.07	*	–0.04		–0.04		–0.03	
	Job contract [g)]	–0.04		–0.04		–0.06		–0.07	*	–0.06		–0.07	*	–0.09	**	–0.09	**
2	Job demands			–0.17	***	–0.16	***	–0.07	*			–0.17	***	–0.16	***	–0.02	
	Job control			–0.01		–0.01		–0.01				–0.01		–0.01		0.00	
	Workplace support			0.13	***	0.05		0.05				0.06	*	–0.01		–0.01	
3	Family/Friend support					0.18	***	0.17	***					0.18	***	0.17	***
4	Working excessively							0.00								–0.11	**
	Working compulsively							–0.25	***							–0.19	***
	R^2	0.02	**	0.06	***	0.09	***	0.14	***	0.03	***	0.06	***	0.08	***	0.14	***
	Change in R^2			0.04	***	0.02	***	0.05	***			0.03	***	0.02	***	0.06	***

* $p<0.05$, ** $p<0.01$, *** $p<0.001$, [a)] The β values are the standardized coefficients. The constant values of each step are 11.730 (group 1)/13.004 (group 2), 11.888 (group 1)/14.578 (group 2), 10.450 (group 1)/12.648 (group 2), and 12.465 (group 1)/14.253 (group 2) for step 1, 2, 3, and 4, respectively. [b)] Gender was coded as 1 (men) and 2 (women). [c)] Marriage was coded as 1 (yes) and 2 (no). [d)] Education was coded as 1 (college or lower) and 2 (university or higher). [e)] Occupation was coded as 1 (white collar) and 2 (blue collar). [f)] Shift work was coded as 1 (no) and 2 (yes). [g)] Job contract was coded as 1 (regular worker) and 2 (others).

ment. The independent variables were entered into the equation in the following order: demographic characteristics at Step 1, the three job characteristics at Step 2, the off-job characteristic 'family/friend support' at Step 3, and two subscales of workaholism as personal characteristics at Step 4. Since very large sample sizes may produce trivial, albeit significant, coefficients, we split the data into two random groups (i.e. a calibration and validation group), and cross-validated our findings to avoid Type 1 error.

Table 1 shows the means, standard deviations, Cronbach's alpha coefficients, and zero-order Pearson correlations of all study variables. Workplace support and family/friend support were positively related with psychological detachment, whereas job demands and each subscale of workaholism were negatively associated with it across the two groups.

Table 2 shows the results of the hierarchical multiple regression analyses. At the final step 4, two antecedents of detachment were significant in the calibration group. Findings were identical in the validation group. Specifically, family/friend support was positively associated with psychological detachment, whereas working compulsively was negatively associated with it. Explained variances (R^2) of psychological detachment were identical across the two groups: 14% each.

Our finding showed that workaholism (especially working compulsively) had a negative association with psychological detachment across the two groups. This personal factor was able to explain additional variance over and above the job characteristics and the family-related factor. Since workaholic people invest much time and effort in their work and they often think about work when they are not actually at work[14], they may have less opportunities to have recovery experiences, especially psychological detachment.

A novel aspect of our study was to examine the role of family/friend support as a potential antecedent in the off-job domain. Our findings revealed that family/friend support was positively associated with psychological detachment. Interactions with family/friends may increase the probabilities of not doing work-related tasks and of engaging in alternative (pleasurable) activities. This can result in not thinking about work during non-work time and, consequently, psychologically detaching themselves from work. However, overall workplace support had no significant relation with psychological detachment. The Japanese with interdependent view of self[15] are characterized by connectedness with social context, whereby the

basis of self-esteem is to maintain harmony with social context. Hence, workplace support may not always lead to psychological detachment from their work. Taken together, social support outside the workplace could play a more important role in facilitating mentally "switching off" from work than social support at work.

The present study has both weak and strong points. First, it is based on survey data that used self-reported measures. Although common method variance might have affected the results, it is also claimed that these influences are not as high as could be expected and does not invalidate the results[16, 17]. A second possible limitation is that we used a cross-sectional design, which precludes causal inferences. Third, the R^2-values at the final step were not very high, which suggests that there may be other factors that might explain mentally switching-off, such as coping and personality[2]. Finally, our data were collected via the internet, which requires caution regarding the generalizability of our findings. Our participants had a higher educational status compared with those from nationwide surveys in Japan by a paper-and-pencil method[18]. Thus, self-selection might be a limitation of the present study. However, on the positive side, the present research included non-Western employees from a wide range of different occupations using cross-validation to check the robustness of findings.

Our results may have relevant implications for practice. Since working compulsively, a component of workaholism, may inhibit psychological detachment, modifying this tendency is a possible way to facilitate psychological detachment. For instance, rational emotive therapy[19] can be useful, since workaholic people suffer from the belief that they should be perfect[20]. Increasing family/friend support may also be useful to promote psychological detachment. To recognize the resources and the content of support would be the first step to increase social support. It is also important to build and maintain good relationship with family and friends as potential support providers.

In conclusion, the current study highlights the importance of family-related and personal factors rather than work-related factors for psychological detachment. Increasing family/friend support and decreasing the tendency of working compulsively may be useful to improve employee's well-being through psychological detachment.

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