

Sabbatical Leave: Who Gains and How Much?

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A rigorous quasi-experiment tested the ameliorative effects of a sabbatical leave, a special case of respite from routine work. We hypothesized that (a) respite increases resource level and well-being and (b) individual differences and respite features moderate respite effects. A sample of 129 faculty members on sabbatical and 129 matched controls completed measures of resource gain, resource loss, and well-being before, during, and after the sabbatical. Among the sabbatees, resource loss declined and resource gain and well-being rose during the sabbatical. The comparison group showed no change. Moderation analysis revealed that those who reported higher respite self-efficacy and greater control, were more detached, had a more positive sabbatical experience, and spent their sabbatical outside their home country enjoyed more enhanced well-being than others.

Keywords: stress, well-being, respite, sabbatical, conservation of resources theory

Conservation of resources (COR) theory (Hobfoll, 1989, 2001) posits that people have a basic motivation to acquire, retain, protect, and enhance their psychological resources. Resources are things that people value in their own right or that act as means to obtain highly valued ends; they include personal characteristics (e.g., self-efficacy, goal accomplishment), objects (e.g., books, computers), conditions (e.g., support system, rank), and energies

(e.g., time, money). Stress occurs when individuals are threatened with resource loss, actually lose resources, or fail to gain resources after resource investment. When confronted with stress, individuals try to minimize the net loss of their resources by investing in other resources. In the absence of stress, individuals strive to develop resource surpluses, which promote “positive well-being” (Hobfoll, 1989, p. 517). Reviews of the COR research (Hobfoll,

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2001; Hobfoll & Shirom, 2000) support its principles. However, most COR research has lacked rigor; researchers either did not measure resources or measured them only once. COR research has been limited further by its emphasis on resource loss. We extended COR research by studying a positive life event, namely, a respite from routine work. Thus, we examined the impact of a respite and resource gain on well-being.

In respite research, the same individuals are observed repeatedly on the job and during periods away from work, or “respite” (Eden, 2001a). A respite can be “a workday evening at home, a day off work, a weekend, a vacation, or some other form of absence from the work setting when the everyday pressures of the job are presumed to be absent, or at least appreciably diminished” (Eden, 2001a, p. 145). On each occasion, job stress and strain are measured. The data are analyzed as an interrupted time series, a design that “promotes point-specific causal inferences” (Cook & Shadish, 1994, p. 575). Studies of respites, such as evenings at home (e.g., Sonnentag & Bayer, 2005), vacations (e.g., Etzion, 2003; Lounsbury & Hoopes, 1986), reserve military service (Etzion, Eden, & Lapidot, 1998), and business trips (Westman & Etzion, 2002), have consistently demonstrated a pattern of stress and strain rising during work and falling during or immediately after respites. Nevertheless, whereas four studies measured job stress and strain during respite (Eden, 1982, 1990; Westman & Eden, 1997; Westman & Etzion, 2002) and two others used a control group (Etzion, 2003; Etzion et al., 1998), no study has done both. Single-group and single-occasion designs are vulnerable to many threats to internal validity (e.g., history, maturation, selection; Shadish, Cook, & Campbell, 2002). A unique contribution of the present study lies in combining the interrupted time-series design with the matched-sample design to test the influence of respite on well-being with greater internal validity.

Enriching Respite Research: COR Theory, Type of Respite, and Positive Psychology

Respite effects have been found in a variety of organizations and occupations (Eden, 2001a). However, respite research has been largely atheoretical. Furthermore, it has been limited to respites of short duration and to a rather restricted array of (mostly negative) outcomes.

Embedding Respite Research in COR Theory

Westman and Eden (1997) suggested that respites may enhance well-being through several mechanisms conceptualized in COR theory. First, a respite may halt the resource-loss cycle. Although individuals on respite may experience nonwork stressors (e.g., family conflict), they conserve resources while on respite that might otherwise be consumed in the work situation. In their meta-analysis, Lee and Ashforth (1996) found, consistent with COR theory, that emotional exhaustion was more strongly related to work demands that may have resulted in resource loss than resource gain. This implies that a respite may reduce burnout by stopping the resource-loss cycle. Second, positive events such as vacations may lead to resource gain. Hence, respites may occasion cessation of resource loss, replenishment of exhausted resources, and gain of new resources. Hobfoll and Shirom (1993) suggested that a relaxation period between stress episodes allows replenish-

ment of resource reservoirs. Finally, because resource accretion means that more resources can be invested in obtaining further gains, a gain spiral results. Hence, we predicted that resource levels would rise during the respite and decline after the return to work.

Hypothesis 1: Respite decreases resource loss and increases resource gain.

Sabbatical Leave as a Respite

Sabbatical leave among academics is a special respite. Sabbaticals are paid leaves for personal and professional development (Miller & Kang, 1997). According to Zahorski (1994), a sabbatical is meant to provide relief from routine work duties. Sabbatical is appreciably longer and less frequent than the respites studied to date. Furthermore, sabbatical is usually not work free. It entails work different in nature and often in a location other than the routine work site. Though sabbatees (individuals on sabbatical) can be expected to perform some parts of the job while on sabbatical (e.g., reading and writing), some of the stressors that characterize routine work (e.g., teaching) are diminished. Etzion et al. (1998) and Westman and Etzion (2002) found that even non-work-free respites (reserve military service, business trips) provide relief from job stress. Hence, though not work free, sabbaticals may provide opportunities for renewal.

Sabbatical has been viewed historically as an opportunity for renewal and for mitigation of job stress (Toomey & Connor, 1988). According to Zahorski (1994), sabbaticals typically engender new perspectives, renewed vigor, and better health. However, this topic has received little scholarly attention. Research has found that academics view sabbatical as a release from teaching and administrative duties and an opportunity to initiate new research, catch up on developments, and produce publications and novel discoveries (e.g., Miller & Kang, 1997; Sima & Delton, 1995; Sorcinelli, 1986). Retrospective self-reports do instantiate resource gain and thus accord with COR theory. On the basis of COR theory, we measured resources such as professional knowledge and advancement, free time, energy, support, and goal accomplishment.

Positive Psychology: More Than Just Prevention of Negative Well-Being

Subjective well-being includes positive affect (PA), the absence of negative affect, and satisfaction (Diener, Suh, Lucas, & Smith, 1999). However, respite researchers have studied mostly negative well-being (e.g., stress, burnout, anxiety, depression, mood; Eden, 1982, 1990; Sonnentag, 2001; Sonnentag & Natter, 2004). Evidence for the beneficial effects of respite on *positive* well-being is scant and inconsistent. Lounsbury and Hoopes (1986) found that job and life satisfaction rose after vacation, but Strauss-Blasche, Ekmekcioglu, and Marktl (2000) found a postvacation increase in positive mood but not in life satisfaction. Heeding recent calls for focus on the positive (Luthans & Youssef, 2007; Seligman & Csikszentmihalyi, 2000; Wright & Cropanzano, 2004) and on the basis of COR theory, we predicted that job stress and burnout would wane and positive affect and life satisfaction would rise

during the sabbatical and return to pretest levels after the return to work.

Hypothesis 2: Respite diminishes negative well-being and enhances positive well-being, and the effect of respite on well-being is mediated by resource gain and resource loss.

Moderators: Relief-Enhancing Respite Conditions

The salutogenic impact of respite on well-being is unlikely to be uniform. Individual differences and respite features are resources that may moderate respite effects. COR theory posits that the more resources individuals have, the less they will be harmed by acute resource loss. This is because they can draw on resource reserves when under stress. Individuals lacking resources are less capable of resource gain, because they consume their dwindling resources in attempts to offset further loss. Hence, high levels of personal resources and respite features or experiences that facilitate resource gain should result in greater increases in well-being during sabbatical. We chose moderators from two resource categories. Self-efficacy is a personal characteristic. Detachment from work, perceived control, respite quality, and respite site are condition resources.

Hobfoll (2002) suggested that high-self-efficacy individuals perceive themselves to be highly capable of applying their other resources to meet stressful demands. Eden (2001b) defined respite self-efficacy as belief in one's capacity to meet respite demands, suggesting that individuals with high respite self-efficacy are more likely to believe they can overcome challenges (e.g., adjust to a different environment) and thus are likely to derive more benefit during respite.

Perceived control is the extent to which individuals believe they can act directly on their environment to produce desired outcomes or avoid negative ones (Spector, 1998). Examples include the ability to start and stop work when desired, to work fast or slowly, and to work at home when preferred. According to COR theory, those who perceive themselves to have more control are less vulnerable to resource loss and to strain. Thus, control is stress buffering.

Psychological detachment from work is one's sense of being away from the work situation (Etzion et al., 1998). Detachment prevents further loss of resources caused by the work situation. Etzion et al. found that men on active reserve military duty experienced greater relief if they detached (e.g., did not call in or visit the workplace). Sonnentag (2001) found that, for teachers, work-related activities during an evening at home negatively affected affective well-being before going to sleep, whereas non-work activities (e.g., watching TV) positively affected well-being.

Hobfoll (1998) hypothesized that the failure of invested resources to generate a positive return is experienced as a loss. Accordingly, when people take respites they invest and expect gains. When gains accrue, they perceive the respite as satisfying and experience greater well-being. Conversely, when such investments fail to provide positive returns, they perceive the respite less positively and experience less well-being. Research has shown that the perceived quality of the respite experience moderates respite effects (e.g., Etzion et al., 1998; Westman & Eden, 1997).

Hypothesis 3: Respite self-efficacy, perceived control, psychological detachment, and respite quality moderate the im-

pact of respite on well-being. Sabbatees reporting higher values on these moderators experience greater increases in resources and well-being during the sabbatical than those reporting lower values.

Any respite requires adaptation (Eden, 2001b), but some respites require more coping effort than others. Academics who spend their sabbaticals abroad are sojourners in a foreign land for an extended period (Shupe & McGrath, 1998). Transition to a new environment involves uncertainty and calls for adjustment to a new work culture and lifestyle (Sykes & Eden, 1985), especially during the initial months abroad (Black, 1988; Shupe & McGrath, 1998). This arouses frustration and anxiety (Anderzen & Arnetz, 1999; Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005). Furthermore, returning sojourners report serious problems (Forster, 1997). Indeed, repatriation may be the most stressful part of an international assignment (Sanchez, Spector, & Cooper, 2000). We predicted that, because coping depletes resources, sabbatees who sojourn outside their home country would gain less resources and well-being during the sabbatical and would lose more resources and well-being upon repatriation than those who remain home.

Hypothesis 4: Respite site moderates the impact of respite on well-being; those who sojourn overseas gain less while away and lose more upon returning home.

Method

Design, Population, and Sample

This was a quasi-experiment among faculty members at 10 universities in Israel, New Zealand, and the United States on sabbatical leave during 2000–2002. They completed questionnaires before, during, and after their leave. We matched each sabbatee with a control individual of the same rank, seniority, sex, and academic department who was not on leave during the same year. Each match completed questionnaires on the same occasions as the sabbatee. We initially solicited the participation of 819 sabbatees and 900 matched controls; 129 sabbatees and 129 matched controls completed all three questionnaires. The sabbatees and the controls did not differ significantly on any pretest resources or well-being indicator or on any available demographic indicator except tenure; 86% of the controls were tenured, in contrast to 94% of the sabbatees, $\chi^2(1, N = 124) = 5.33, p < .05$. In each group, the average age was 56, two thirds were men, and mean seniority was 17 years. One third were full professors, half were associate professors or senior lecturers, and the rest were assistant professors or lecturers. Those sampled were from the natural, social, and life sciences, humanities, education, business, agriculture, medicine, and engineering; 66% were from Israel, 21% were from New Zealand, and 13% were from the United States.

Measures

Self-report questionnaires measured all variables. Index reliability was computed separately for sabbatees and controls. Resources and well-being variables were measured before, during, and after the sabbatical. The moderators were measured once, during the

sabbatical. *Resource gain and loss* was measured with 12 resources (see Appendix A) from the COR Evaluation Scale (Hobfoll & Lilly, 1993). Respondents indicated how much of each resource they had lost or gained during the past few months, on a scale ranging from -3 (*a very large loss*) to 3 (*a very large gain*), with 0 representing no change (average $\alpha = .86$). We also computed separate loss and gain scores. To compute gain, we recoded scores below zero to 0 (average $\alpha = .83$). To compute loss, we recoded scores above zero to 0 and multiplied the negative scores by -1 so that high scores represent high loss (average $\alpha = .85$). Seventy-nine MBA students completed two questionnaires to validate this measure. The first included the present resource measure. Fashioned after the established COR Evaluation Scale, the second questionnaire included two parts; the two parts, gains and losses, included the same 12 items. We distributed the two questionnaires a week apart. Appendix B shows significant positive correlations between the established measure of resource gain and our measure of it ($r = .87$) and between the established measure of loss and our measure of loss ($r = .96$). Furthermore, although significant, the gain–loss correlation was relatively low ($-.39$ and $-.24$, respectively) within each measurement (established vs. ours). Thus, though we computed two separate scores (for loss and for gain) from a single scale, the relatively low correlation shows that they measure different things. Moreover, across the two measurements, the gain–loss correlations were very similar ($-.30$ and $-.33$). Taken together, these results validate our resource measure, as well as the procedure we used to compute separate gain and loss scores.

Faculty stress was assessed with nine items from the Faculty Stress Index developed by Gmelch, Lovrich, and Wilke (1983) and validated by Keinan and Perlberg (1987). It measures how much the respondent experienced each stressor during the past few months. Keinan and Perlberg found that these were the most serious stressors among Israeli and American academics. Items include “Insufficient time to keep abreast professionally” and “Difficulty preparing a manuscript for publication” (average $\alpha = .75$). *Burnout* was gauged with the five-item emotional exhaustion component of the Maslach Burnout Inventory—General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996; average $\alpha = .86$). *Positive affect* (PA) was measured with four items (“interested,” “excited,” “enthusiastic,” and “inspired”) from Watson, Clark, and Tellegen’s (1988) Positive Affect Scale ($\alpha = .84$). *Life satisfaction* was assessed with four items from Diener, Emmons, Larsen, and Griffin’s (1985) five-item Satisfaction With Life Scale (average $\alpha = .87$). *Respite self-efficacy* was measured with five items assessing beliefs about ability to “cope with an unstructured schedule,” “cope with hassles,” “cope with unfamiliar surroundings,” “adjust to new circumstances,” and “enjoy unfamiliar situations” ($\alpha = .87$). *Perceived control* was measured with three agree/disagree items: “I control how much time I invest in work,” “I determine who I spend my time with,” and “I stop working when I feel like it” ($\alpha = .81$). Based on Etzion et al. (1998), *psychological detachment* was gauged with five items concerning similarity between sabbatical activities and regular job activities, contact with the permanent workplace, and thinking about the back-home job ($\alpha = .83$). *Respite quality* was measured with four agree/disagree items: “I meet interesting people,” “I am bringing myself up-to-date professionally,” “I am developing new research ideas,” and “I am collaborating with research colleagues” ($\alpha =$

$.71$). Confirmatory factor analysis for respite self-efficacy, respite quality, control, and detachment yielded acceptable model fit, $\chi^2(114, N = 129) = 144.35, p = .03$, nonnormal fit index = $.95$, comparative fit index = $.96$, root mean square error of approximation = $.05$, and standardized root mean square residual = $.07$.

Procedure

The pretest was administered a month before the end of the semester before sabbatees left for sabbatical. Questionnaires were filled out in the middle of the sabbatical. The posttest was in the middle of the semester following the sabbatees’ return. We sent the first questionnaire to each control participant upon receiving a questionnaire from his or her matched sabbatee. We sent the second and third questionnaires simultaneously to each sabbatee and to his or her matched control.

Analyses

Each variable that was measured repeatedly was subjected to a Pair \times Condition \times Occasion repeated-measures analysis of variance (ANOVA). The matched pairs served as the blocking factor. “Pair” was a factor that captured differences among the pairs and thus represented extraneous variance. Because the individuals in each pair were matched and experienced different conditions, differences between individuals within the pairs are interpretable as sabbatical effects. Because missing data for one member on any one occasion required the omission of both members from the analysis, each analysis contained slightly fewer than 129 pairs. Condition \times Occasion interactions test the hypothesis that the sabbatical and control groups differed in the amount of change across occasions. We computed three contrasts (a priori non-orthogonal partial interactions) to test differences between the conditions in the amount of change from occasion to occasion. Simple-effects tests determined the significance of the differences between pairs of means. Table 1 presents the intercorrelations between all variables across all occasions.

Results

Respite Effects

Resource gain and loss. Table 2 shows significant Condition \times Occasion interactions for resource gain and loss. The contrasts reveal that the sabbatees and the controls differed in the amount of change in resource levels from the pretest to the second occasion and from the second occasion to the posttest. Significant simple-effects tests confirmed that, as predicted, the sabbatical prevented loss and enabled sabbatees to gain resources, as mean resource loss decreased and mean resource gain increased during the sabbatical. Resource levels dropped back to their pretest levels after the return to routine work, rendering the pretest–posttest comparisons nonsignificant. The control group showed no changes in gain or loss across the occasions.

Stress and burnout. Table 2 shows significant Condition \times Occasion interactions for faculty stress and burnout. Simple-effects tests confirmed that sabbatees’ faculty stress declined during the sabbatical and increased after sabbatees’ return to routine work. However, it was still significantly lower after the sabbatical

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Table 1
Intercorrelations Between All Variables Across All Occasions

Variable	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Faculty stress	1	—	.61**	.59**	.45**	.36**	.32**	.06	.01	-.05	.44**	.40**	.35**	-.02	-.03	.09	-.39**	-.26**	-.39**	—	—	—	—	—
2. Faculty stress	2	.40**	—	.65**	.38**	.49**	.30**	.11	-.16	-.02	.31**	.45**	.31**	-.07	-.18	-.00	-.36**	-.32**	-.30**	—	—	—	—	—
3. Faculty stress	3	.49**	.32**	—	.30**	.31**	.46**	.15	-.03	-.25**	.24**	.27**	.41**	.14	-.01	.04	-.33**	-.27**	-.40**	—	—	—	—	—
4. Resource loss	1	.27**	.22*	.14	—	.61**	.56**	-.18*	-.10	.02	.66**	.50**	.44**	-.10	-.17	-.12	-.47**	-.35**	-.48**	—	—	—	—	—
5. Resource loss	2	.18*	.41**	.12	.23*	—	.63**	.18*	-.22*	-.06	.47**	.60**	.45**	-.07	-.26**	-.21*	-.37**	-.49**	-.39**	—	—	—	—	—
6. Resource loss	3	.28**	.34**	.49**	.40**	.27**	—	.09	-.07	-.27**	.41**	.38**	.57**	.07	.01	-.25**	-.26**	-.34**	-.40**	—	—	—	—	—
7. Resource gain	1	-.11	-.02	.00	-.26**	-.02	-.08	—	.27**	.14	-.00	.14	.17	.24**	.06	.06	.12	.13	.06	—	—	—	—	—
8. Resource gain	2	.12	-.26**	.06	-.00	-.39**	.13	.38**	—	.33**	.04	-.02	.07	.22*	.31**	.08	.07	.15	.06	—	—	—	—	—
9. Resource gain	3	-.09	-.22*	-.28**	-.08	-.05	-.39**	.31**	.35**	—	.04	.09	-.03	-.04	-.03	.05	.04	.06	.11	—	—	—	—	—
10. Burnout	1	.36**	.16	.19*	.35**	.26**	.31**	.03	.15	.06	—	.82**	.66**	-.10	-.20*	-.09	-.48**	-.46**	-.40**	—	—	—	—	—
11. Burnout	2	.23**	.41**	.14	.12	.52**	.18*	.09	-.30**	-.19*	.40**	—	.68**	-.14	-.31**	-.08	-.43**	-.52**	-.37**	—	—	—	—	—
12. Burnout	3	.25**	.08	.37**	.23**	.32**	.40**	.01	.05	-.05	.47**	.40**	—	.11	-.00	-.06	-.30**	-.33**	-.38**	—	—	—	—	—
13. Positive affect	1	-.17	-.21*	-.09	-.02	-.10	-.08	.28**	.24**	.39**	.01	-.08	-.01	—	.60**	.34**	.33**	.38**	.23*	—	—	—	—	—
14. Positive affect	2	.08	-.18*	-.02	.07	-.22*	.09	.12	.40**	.12	-.10	-.28**	.01	.52**	—	.48**	.35**	.42**	.28**	—	—	—	—	—
15. Positive affect	3	.01	-.12	-.23*	.10	-.13	-.26**	.11	.23**	.42**	-.08	-.22*	-.22*	.41**	.56**	—	-.02	.07	.14	—	—	—	—	—
16. Life satisfaction	1	-.25**	-.33**	-.25**	-.27**	-.21*	-.31**	.19*	.10	.21*	-.27**	-.22*	-.25**	.34**	.14	.29**	—	.80**	.79**	—	—	—	—	—
17. Life satisfaction	2	-.12	-.30**	-.18*	-.10	-.28**	-.23*	.17	.31**	.25**	-.16	-.34**	-.14	.38**	.43**	.41**	.70**	—	.72**	—	—	—	—	—
18. Life satisfaction	3	-.23**	-.33**	-.33**	-.23*	-.38**	-.44**	.15	.18*	.23**	-.17	-.30**	-.37**	.30**	.20*	.41**	.69**	.72**	—	—	—	—	—	—
19. Control ^a	2	-.23**	-.31**	-.12	-.18*	-.27**	-.08	.07	.30**	.12	-.08	-.38**	-.06	.25**	.24**	.13	.30**	.37**	.35**	—	—	—	—	—
20. Respite self-efficacy ^a	2	.18*	-.09	.10	.17	-.12	.10	-.11	.06	-.03	-.01	-.21*	.08	.16	.35**	.18*	.06	.20*	.12	.10	—	—	—	—
21. Detachment ^a	2	.11	-.13	.08	.18*	-.12	.14	.18*	.46**	.19*	.13	-.10	.13	-.08	.15	.03	-.18*	.03	-.10	.18*	-.04	—	—	—
22. Respite quality ^a	2	.00	-.21*	-.09	-.09	-.33**	-.02	.13	.46**	.15	-.13	-.32**	-.18*	.34**	.53**	.34**	.22*	.31**	.20*	.28**	.18	—	—	—
23. Respite site ^a	2	-.03	.08	.15	.03	-.00	.29**	-.00	.14	-.08	-.01	.05	.09	-.02	-.10	-.16	.04	-.05	-.14	.07	.15	.10	.19*	—

Note. Coefficients below and above the diagonal are correlations in the sabbatical group and in the control group, respectively. *n* ranged between 123 and 129 participants in each group because of occasional missing data.

^a Variable measured only among sabbatees.

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

Table 2
Comparison of Sabbatical and Control Means on Resources and Well-Being

Variable	Occasion	Sabbatical									Control									Contrast		
		F^a			F^b			F^c			F^a			F^b			F^c					
		M	SD	T1 vs. T2	T2 vs. T3	T1 vs. T3	M	SD	T1 vs. T2	T2 vs. T3	T1 vs. T3	M	SD	T1 vs. T2	T2 vs. T3	T1 vs. T3	M	SD	T1 vs. T2		T2 vs. T3	T1 vs. T3
Resource gain and loss ^d	1	56.88**	0.72	137.62**			-0.05	0.72			-0.16	0.70	0.05			78.73**					78.73**	T1 vs. T2
	2	1.03	0.82		133.97**		1.03	0.82			-0.15	0.70				88.18**					88.18**	T2 vs. T3
	3	20.84**	5.12	45.05**		1.17	-0.12	0.87			-0.15	0.70	0.78	0.24	0.96	1.22					1.22	T1 vs. T3
Resource loss	1	64.37**	6.13	143.80**			5.12	5.58			5.76	6.51	0.03			18.77**					18.77**	T1 vs. T2
	2	1.44	3.15		74.95**		1.44	3.15			5.51	6.48				38.11**					38.11**	T2 vs. T3
	3	58.88*	4.33	198.07**		0.10	6.13	6.09			5.42	6.20	0.03	1.37	0.10	5.02*					5.02*	T1 vs. T3
Resource gain	1	19.95**	1.28	68.96**			13.15	8.21			3.29	3.48				98.96**					98.96**	T1 vs. T2
	2	1.90	0.66		118.75**		1.90	0.66			3.29	3.48				90.15					90.15	T2 vs. T3
	3	58.88*	4.70	198.07**		0.10	4.70	6.55			3.30	4.07	0.00	0.07	0.26	0.00					0.00	T1 vs. T3
Faculty stress	1	19.95**	1.28	68.96**			2.75	0.76			2.75	0.76				109.17**					109.17**	T1 vs. T2
	2	1.90	0.66		128.34**		1.90	0.66			2.76	0.76				60.22**					60.22**	T2 vs. T3
	3	58.88*	4.70	198.07**		6.78*	2.60	0.67			2.82	0.69	0.38	0.93	1.15	6.22*					6.22*	T1 vs. T3
Burnout	1	5.80**	3.38	12.47**			2.36	1.33			2.30	1.63				40.82**					40.82**	T1 vs. T2
	2	1.28	1.16		43.42**		1.28	1.16			2.27	1.62				22.72**					22.72**	T2 vs. T3
	3	5.80**	3.38	12.47**		1.82	2.17	1.38			2.23	1.53	0.54	0.54	0.07	0.21					0.21	T1 vs. T3
Positive affect	1	7.44**	3.66	13.45**			3.30	0.86			3.24	0.74				7.44**					7.44**	T1 vs. T2
	2	1.44	3.15		18.57**		3.63	0.90			3.25	0.85				9.14**					9.14**	T2 vs. T3
	3	7.44**	3.66	13.45**		0.75	3.30	0.86			3.27	0.80	2.06	0.05	0.03	0.70					0.70	T1 vs. T3
Life satisfaction	1	3.85	0.70		20.46**		3.85	0.70			3.49	0.88				16.01**					16.01**	T1 vs. T2
	2	3.62	0.75				3.62	0.75			3.42	0.84				4.52*					4.52*	T2 vs. T3
	3	3.62	0.75		0.38		3.62	0.75			3.35	0.90	6.45*	6.45*	1.10	2.51					2.51	T1 vs. T3

Note. $n = 121, 117, 119, 116, \text{ and } 118$ in each condition for resources, faculty stress, burnout, life satisfaction, and positive affect (PA), respectively. T designates time.
^a Tests the Condition \times Occasion interaction to detect a significant difference between the conditions in the rate of change across occasions. ^{b,c} Tests the change between the occasions among the sabbatical group and the control group, respectively. ^d The whole measure.
^{*} $p < .05$. ^{**} $p < .01$.

than before it, evidencing lingering, albeit diminished, stress relief. Burnout, too, decreased during the sabbatical among sabbatees but returned to the pretest level by the third occasion. The control group showed no changes in stress or burnout.

PA and life satisfaction. Table 2 shows significant Condition \times Occasion interactions for PA and life satisfaction. Simple-effects tests revealed that mean PA among sabbatees increased during the sabbatical and returned to the pretest level by the third occasion. Both significant changes among the sabbatees confirm the respite effect and its fade-out. PA remained unchanged in the control group. The last three rows in Table 2 show that the sabbatees and the controls reported similar mean levels of pretest life satisfaction, $F(1, 123) = 3.29, ns$. By the second occasion, life satisfaction waxed significantly in the sabbatical group but remained unchanged among the controls. By the third occasion, life satisfaction declined significantly in the sabbatical group and again remained unchanged among the controls. However, the contrast between pretest and posttest occasions shows that sabbatees' satisfaction dropped back to the pretest level, evidencing fade-out, whereas controls' satisfaction dropped below the pretest level. The respite evidently prevented this decline among the sabbatees.

To strengthen casual interpretation and to test mediation (Hypothesis 2), we analyzed well-being indicators using repeated-measures analyses of covariance (ANCOVA) holding constant resource gain and resource loss. ANCOVA of faculty stress did not reduce the Condition \times Occasion effect to nonsignificance: loss, $F(2, 216) = 18.48, p < .01$; gain, $F(2, 216) = 6.6, p < .01$. However, ANCOVA of burnout, holding constant resource gain but not loss, rendered the interaction effect nonsignificant: gain, $F(2, 210) = 2.22, ns$; loss, $F(2, 210) = 4.73, p < .01$.¹ Furthermore, ANCOVA of PA and life satisfaction reduced the interactions to nonsignificance: PA loss, $F(2, 206) = 0.31, ns$; PA gain, $F(2, 206) = 0.24, ns$; life satisfaction loss, $F(2, 208) = 1.31, ns$; life satisfaction gain, $F(2, 208) = 0.04, ns$. Thus, though the variation in resource levels across the occasions did not mediate the changes in faculty stress, it did mediate the changes in burnout and positive well-being.

Moderator Effects: Who Benefited More From the Sabbatical?

Resources and well-being among all the sabbatees who completed the second questionnaire ($n = 248$) were analyzed as dependent variables with repeated-measures ANCOVA, with the potential moderator entered as the covariate. Significant Occasion \times Moderator interactions confirm the hypothesis that changes in the dependent variables across occasions differed for different levels of the moderator. To illuminate the significant interactions, we split each moderator at the median and computed separate ANOVAs for each level of the moderator. Simple effects tests determined the significance of the differences between pairs of means (see Table 3).

ANCOVA detected significant Occasion \times Respite Self-Efficacy interactions for resource gain, burnout, and PA. ANOVA showed that mean resource gain, burnout, and PA changed significantly across the occasions in both subgroups (above and below median); simple effects tests confirmed that burnout declined during the sabbatical and resource gain and PA rose in both subgroups. However, these changes were larger among sabbatees with high respite self-efficacy. Thus, those with high respite self-efficacy experienced more relief in terms

of decreased burnout and increased gain and PA than did those with low respite self-efficacy, as predicted.

ANCOVA detected significant Occasion \times Perceived Control interactions for faculty stress, resource gain, and burnout. ANOVA detected significant occasion effects in both perceived-control subgroups. Simple effects tests revealed that faculty stress and burnout declined during the sabbatical and resource gain rose; these changes were larger among those who perceived themselves as having more control. Upon the return to routine work, stress and burnout increased and resource gain decreased in both subgroups. By the final occasion, resource gain returned to its pretest level in both subgroups. Burnout was significantly lower after the sabbatical than before it in both subgroups. However, posttest faculty stress was significantly lower than the pretest level only among those who reported having more control. Thus, those who had more control benefited more during the sabbatical and paid a smaller price upon returning to routine work. Hence, perceived control yielded the predicted moderation effects for resource gain, burnout, and PA.

All Occasion \times Detachment interactions were significant. ANOVA of faculty stress, resources, and burnout detected the predicted occasion effects in both detachment subgroups. Simple effects tests confirmed that those who were more detached experienced greater relief from stress, resource loss, and burnout and gained more resources while on sabbatical. Upon the return to routine work, stress, resource loss, and burnout increased and resource gain decreased in both subgroups. However, posttest stress and burnout were significantly lower than pretest levels only among those who had detached. Moreover, those who detached experienced the predicted changes in PA and life satisfaction across the occasions, whereas those who did not detach did not experience these predicted changes. Thus, those who detached benefited more during the sabbatical and experienced more gradual fade-out.

ANCOVA yielded significant Occasion \times Respite Quality interaction for all well-being measures except life satisfaction. ANOVA showed that faculty stress, resources, and burnout changed significantly across the occasions in both quality subgroups. As predicted, those who reported higher quality respite gained more resources, enjoyed more relief from stress and burnout, and manifested the predicted changes in PA across occasions; those who experienced a low-quality respite failed to benefit in terms of PA. Thus, whereas the preventative role of the sabbatical (in terms of decreased stress and burnout) was detected among all subgroups analyzed, the salutogenic effect of respite on PA was contingent on respite quality, as predicted.

ANCOVA detected significant Occasion \times Respite Site interactions for resource loss and resource gain. Both sabbatees who resided abroad and those who stayed home experienced change in resource levels. Sabbatees in both subgroups lost fewer resources during the sabbatical than before it. By the third occasion resource loss had increased in both subgroups. However, those who returned from abroad lost much more resources than did their colleagues who had remained home, as predicted. Furthermore, their posttest resource-loss level was significantly higher than their pretest level. In contrast, the posttest loss level of those who remained in their home country did not differ significantly from its

¹ p values of the nonsignificant statistics are available from Oranit B. Davidson.

Table 3

Mean Well-Being Among Low and High Respite Self-Efficacy, Perceived Control, Psychological Detachment, Respite Quality and Respite Site (Inside vs. Outside Home Country), Sabbatees Only

Variable	Moderator	F ^a	F ^b	Occasion						F ^c		
				1		2		3		T1 vs. T2	T2 vs. T3	T1 vs. T3
				M	SD	M	SD	M	SD			
Respite self-efficacy												
Faculty stress	Low	2.58	67.66**	2.71	0.62	1.95	0.61	2.56	0.62	133.08**	80.37**	4.80*
	High		87.93**	2.81	0.66	1.91	0.69	2.62	0.58	174.04**	97.61**	7.10**
Resource loss	Low	2.22	28.43**	6.12	6.17	1.95	3.54	6.14	5.97	54.25**	49.56**	0.01
	High		33.81**	5.24	5.50	1.02	2.66	5.78	6.54	69.30**	54.52**	1.04
Resource gain	Low	8.58**	76.63**	4.10	5.05	11.86	7.84	4.35	7.84	130.55**	90.55**	0.01
	High		116.89**	4.15	4.81	15.25	7.84	5.17	7.39	249.95**	133.29**	0.94
Burnout	Low	3.56*	25.80**	2.75	1.41	1.63	1.24	2.31	1.41	61.53**	27.73**	8.51*
	High		38.09**	2.17	1.46	0.99	1.06	1.91	1.44	74.93**	47.96**	1.59
Positive affect	Low	6.52**	4.98*	3.16	0.72	3.42	0.86	3.11	0.82	11.88**	8.88**	0.00
	High		18.59**	3.47	0.78	3.92	0.75	3.45	0.85	34.31**	30.81**	0.19
Life satisfaction	Low	1.25	3.14*	3.49	0.73	3.54	0.72	3.38	0.78	1.38	6.68**	1.21
	High		5.36**	3.75	0.76	3.92	0.75	3.75	0.77	6.69**	11.35**	0.40
Perceived control												
Faculty stress	Low	6.22**	61.14**	2.79	0.62	2.09	0.64	2.68	0.60	132.32**	70.05**	3.82
	High		110.15**	2.70	0.67	1.77	0.62	2.51	0.64	204.18**	108.02**	10.32**
Resource loss	Low	0.65	23.70**	6.15	6.16	2.23	4.08	6.27	6.09	46.46**	43.05**	1.14
	High		38.51**	5.54	6.32	0.86	1.88	5.59	6.64	73.83**	60.10**	0.02
Resource gain	Low	13.84**	72.62**	3.78	3.90	10.97	6.57	3.79	5.21	131.33**	92.70**	0.57
	High		133.68**	4.53	5.71	15.99	8.61	5.82	6.91	275.34**	137.37**	3.07
Burnout	Low	4.54**	14.93**	2.56	1.51	1.75	1.36	2.23	1.49	35.80**	14.28**	4.04*
	High		59.87**	2.41	1.42	0.95	0.92	2.03	1.42	137.98**	63.37**	7.61**
Positive affect	Low	1.79	6.76**	3.13	0.75	3.45	0.83	3.12	0.82	15.68**	13.42**	0.01
	High		14.37**	3.51	0.76	3.87	0.82	3.41	0.87	25.63**	22.97**	0.49
Life satisfaction	Low	0.51	4.74**	3.45	0.82	3.57	0.74	3.41	0.87	5.47*	6.36**	0.62
	High		4.15*	3.74	0.72	3.86	0.74	3.56	0.78	4.29*	11.33**	1.08
Psychological detachment												
Faculty stress	High	6.70**	107.16**	2.83	0.64	1.88	0.68	2.59	0.63	233.14**	104.75**	11.05**
	Low		53.44**	2.67	0.64	1.99	0.60	2.59	0.62	106.96**	71.28**	2.92
Resource loss	High	7.67**	40.24**	6.49	6.90	1.25	3.06	5.57	5.56	85.36**	81.21**	0.06
	Low		22.70**	5.15	5.32	1.85	3.32	6.28	6.97	37.55**	42.98**	1.68
Resource gain	High	21.29**	138.01**	4.52	5.26	15.96	7.47	5.37	6.73	327.49**	153.61**	0.64
	Low		62.25**	3.65	4.41	10.68	7.65	4.27	5.56	95.22**	72.57**	0.16
Burnout	High	7.03**	44.76**	2.60	1.47	1.22	1.15	2.14	1.51	105.79**	39.46**	10.33**
	Low		22.39**	2.34	1.45	1.47	1.27	2.13	1.38	45.20**	30.73**	1.29
Positive affect	High	6.67**	23.26**	3.24	0.83	3.73	0.83	3.29	0.82	39.61**	32.16**	0.58
	Low		2.97	3.42	0.69	3.59	0.86	3.24	0.90	5.99*	7.60**	2.94
Life satisfaction	High	3.61*	10.47**	3.49	0.78	3.72	0.73	3.49	0.85	17.77**	17.07**	0.01
	Low		1.84	3.74	0.74	3.72	0.78	3.64	0.69	0.01	2.47	2.78
Respite quality												
Faculty stress	Low	12.44**	54.25**	2.73	0.65	2.03	0.63	2.57	0.66	126.26**	64.28**	4.93*
	High		109.72**	2.77	0.65	1.83	0.65	2.62	0.59	211.61**	117.84**	8.30**
Resource loss	Low	4.85**	21.23**	6.26	6.21	2.28	3.62	5.50	5.40	44.23**	36.75**	0.47
	High		43.03**	5.60	6.33	0.80	2.55	6.45	7.14	79.42**	69.96**	1.96
Resource gain	Low	44.49**	65.28**	3.43	3.22	9.77	5.96	4.14	4.93	140.53**	69.49**	0.49
	High		149.47**	4.79	6.02	17.12	8.07	5.52	7.20	287.07**	178.26**	0.28
Burnout	Low	4.05*	22.93**	2.64	1.43	1.55	1.32	2.21	1.42	55.28**	24.56**	5.24*
	High		43.77**	2.36	1.50	1.14	1.07	2.07	1.49	92.23**	45.98**	5.14*
Positive affect	Low	13.62**	1.58	3.12	0.67	3.32	0.77	3.07	0.77	6.82**	4.10*	0.13
	High		28.13**	3.49	0.82	4.00	0.77	3.46	0.88	46.13**	42.33**	0.19
Life satisfaction	Low	0.40	3.04*	3.49	0.77	3.56	0.76	3.41	0.84	2.20	5.62*	1.01
	High		5.46**	3.69	0.76	3.87	0.72	3.70	0.70	7.16**	11.56**	0.57

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Table 3 (continued)

Variable	Moderator	F^a	F^b	Occasion						F^c		
				1		2		3		T1 vs. T2	T2 vs. T3	T1 vs. T3
				M	SD	M	SD	M	SD			
	Respite site											
Faculty stress	Inside	0.86	55.81**	2.74	0.75	1.93	0.65	2.55	0.69	118.04**	64.98**	9.84**
	Outside		102.29**	2.75	0.57	1.92	0.65	2.60	0.55	206.42**	110.05**	5.58*
Resource loss	Inside	4.43*	16.11**	6.47	7.04	1.90	3.53	4.90	5.58	37.39**	23.65**	2.38
	Outside		50.61**	5.25	5.60	1.25	2.90	6.60	6.66	89.29**	82.44**	5.02*
Resource gain	Inside	7.41**	50.58**	4.37	4.51	11.94	7.88	5.18	6.15	107.39**	55.46**	0.48
	Outside		148.05**	4.02	5.27	14.76	8.07	4.62	6.25	277.77**	171.28**	0.49
Burnout	Inside	0.15	23.94**	2.56	1.51	1.36	1.28	2.15	1.51	67.30**	20.26**	5.21*
	Outside		41.11**	2.42	1.43	1.31	1.16	2.11	1.41	79.62**	52.83**	4.84*
Positive affect	Inside	1.04	7.19**	3.33	0.76	3.68	0.89	3.34	0.81	18.79**	10.20**	0.41
	Outside		14.69**	3.32	0.78	3.65	0.81	3.21	0.87	22.39**	26.06**	1.61
Life satisfaction	Inside	1.15	3.18*	3.65	0.78	3.78	0.73	3.63	0.81	6.96**	4.06*	0.12
	Outside		6.47**	3.58	0.75	3.69	0.76	3.52	0.75	3.06	13.35**	3.86

Note. n ranged between 236 and 247. T designates time.

^a Tests the Occasion \times Moderator interaction. ^b Tests the main effect of the occasion among low and high moderator subgroups. ^c Tests the change across the occasions among low and high moderator subgroups.

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

pretest level. Finally, although resource gain rose significantly in both subgroups during the sabbatical, the increase was larger among those who resided abroad. Resource gain returned to its pretest level by the final occasion in both subgroups. Thus, those who resided abroad benefited more during the respite but paid a greater price upon returning.

Discussion

Sabbatical leave promotes well-being. The finding that respite reduces stress and burnout replicates research showing the ameliorative effects of shorter respites. Going beyond previous respite studies, the present study confirmed the beneficial effect of a respite on positive well-being. Thus, it provides evidence for the salutogenic effects of respite on the entire range of subjective well-being, from the mitigation of negative well-being to the enhancement of positive well-being.

The results extend COR theory by confirming it among individuals experiencing a positive life event. The results also highlight the importance of both increasing resource gain and reducing resource loss in enhancing well-being. Repeated observation of resources revealed how respite improves well-being: The sabbatical diminished resource loss and facilitated resource renewal. Changes in well-being shadowed changes in resources. Though we cannot explain why resource gain and loss failed to mediate the effect of respite on faculty stress, their mediating role was clearly revealed for burnout and positive well-being. Casual inference is strengthened by matched nonsabbatees' reporting no changes in resources or well-being. Thus, COR theory enriches our understanding of respite effects and respite research extends COR theory's reach to positive events.

Our findings support COR theory. However, they cast doubt on the COR tenet that loss is more resource draining than gain is resource generating. Viewing the sabbatical as a gain event and the return as a loss event, one would expect resources and well-being to be lower after the sabbatical than before it. However, this was

not the case; although upon return sabbatees lost the benefits they had reaped from the sabbatical, at the posttest they returned to their pretest levels. Because COR theory suggests that individuals with more resources might be able to offset the loss of other resources, a possible explanation is that the resources acquired during the sabbatical prevented or buffered further loss. This process may instantiate how respite replenishes resource reservoirs, reducing individuals' vulnerability to loss and its ill effects. It is also possible that sabbatees gained other valued resources upon return to routine (e.g., reuniting with family and friends), which offset the resource-consuming effects of their return. In contrast, the controls had no opportunity to experience temporary relief from chronic job stress and could not replenish their coping resources. This may explain their gradual decline in life satisfaction over time. We interpret the return of the sabbatees to their pretest levels as evidence for the ameliorative, albeit temporary, role of off-the-job respite and resource gain in sustaining individual well-being.

Moderator Effects and Directions for Future Research

The moderator results further highlight the impact of resource gain. The findings that positive respite experience and detachment bring greater relief from stress and burnout replicate past findings. However, the moderation analysis revealed that under certain conditions, *positive* well-being did not improve. Pending replication, it seems that to obtain the full benefit of a respite, workers must detach from their workplace and experience a positive respite.

Every moderator tested affected the impact of respite on resource gain or on both gain and loss. No tested moderator moderated loss but not gain. Detachment and respite quality moderated loss and gain. They also moderated stress and burnout relief and positive well-being enhancement. Respite self-efficacy and respite quality moderated gain but not loss. These findings are suggestive of mechanisms through which each moderator affects respite relief; they imply that both resource gain and the absence of loss are essential for intensifying relief from negative well-being, whereas

gain is crucial for promoting positive well-being. Future research should test further whether resource gain and loss play different moderating roles in respite effects.

Sabbatees who sojourned overseas experienced a greater increase in resource gain during the sabbatical but lost more upon returning home, compared to their colleagues who stayed home. Given that their posttest resource loss level was higher than their pretest level, it is premature to conclude that overseas sabbaticals are more beneficial than home sabbaticals. Rather, we should explore the conditions under which overseas sabbaticals are better. In light of evidence that cross-cultural adjustment contributes to the success of international assignments (Bhaskar-Shrinivas et al., 2005) and repatriation (Andreason & Kinneer, 2005), research should test whether adjustment moderates sabbatical and fade-out effects. Other moderators (e.g., the nature of work, number of visits home) should be tested. Finally, because most respite effects fade fast after the return to routine, we should seek moderators that might prolong respite effects after the respite ends.

Limitations: Measurement, Internal Validity, and External Validity

Though we validated our bipolar scale of resource gain and loss, it would be prudent to defer conclusions regarding the differential impact of resource gain and loss pending replication with separate loss and gain measures. Also, having only one postsabbatical occasion, we cannot estimate the rate of fade-out. The participants knew we were studying sabbatical. This may account for some of our findings. Though we studied matched samples, our design is not as internally valid as randomized experiments. However, random assignment to sabbatical is not feasible, and the present design is likely the most internally valid achievable. Regarding external validity, our university sample does not represent the population of universities, nor do our respondents represent a population of sabbatees. Nevertheless, this study extends external validity because it replicated previous respite findings with a very different type of sample and respite.

Practical Implications

The significant moderators hint at levers that may enhance the benefits of sabbatical. To increase respite self-efficacy and respite quality, sabbatees should tailor their sabbatical to their abilities and needs. Also, they should try to obtain more control over matters that are important to them. Because adjusting to a new way of life consumes resources, sabbatees would do well to spend their next sabbatical in a country to which it will be easy for them to adjust. Above all, because detachment was our most consistent moderator, sabbatees should be encouraged to minimize contact with their back-home workplace. Employers and colleagues should let them detach by not using "electronic tethers," such as cell phones and e-mail, for the sake of the sabbatees' well-being. Greater well-being, though temporary, holds promises of higher future productivity. Academics believe their performance improves after sabbatical (e.g., Miller & Kang, 1997). Performance expectations can operate as self-fulfilling prophecies (e.g., Davidson & Eden, 2000), and performance is likely to increase once back on the job. Finally, it is likely that sabbaticals have similar salutogenic effects among

personnel in other organizations. Because more companies are offering sabbaticals as a means of motivating their best performers (Carr & Li-Ping Tang, 2005), managers can apply the insights of the present study and tailor sabbatical programs to maximize their benefits. The easiest moderator to manage is detachment: If you care about the well-being of your employees, when they go away for a respite, leave them alone!

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(Appendices follow)

Appendix A

Resource Gain and Loss Items

Resource category	Items
Personal characteristics	Professional knowledge Professional advancement Feeling independent Feeling I have control over my life My health
Conditions	People from whom I can learn Support from coworkers Someone who is willing to listen to me
Energies	Time available for work Free time Energy

Note. Exploratory factor analysis did not reveal the expected three factors, and a content analysis of the items did not reveal consistency in item dispersion across factors. The factor analysis results are available from Oranit B. Davidson. Adapted from "Resource Conservation as a Strategy for Community Psychology," S. E. Hobfoll & R. S. Lilly, 1993, *Journal of Community Psychology*, 21, pp. 128–148. Copyright 1993 by Wiley.

Appendix B

Intercorrelations Between Gain and Loss

Variable	1	2	3	4	5
The present measure					
1. Resource gain and loss (the whole measure)	—				
2. Resource loss	-.68**	—			
3. Resource gain	.78**	-.24*	—		
COR established measures					
4. Resource loss	-.76**	.96**	-.33**	—	
5. Resource gain	.90**	-.30**	.87**	-.39**	—

Note. *N*s ranged between 78 and 79 because of occasional missing data. COR = conservation of resources.

** $p < .01$.

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