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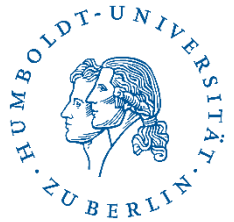

Change in Affective Well-Being on Change in Perceived Job Characteristics: The Mediating Role of Hope

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Abstract

Research on occupational health has consistently shown that job characteristics and personal resources predict employee well-being. Building on the associative network theory, we claim that – *vice versa* – well-being is likely to affect the perception of job characteristics and personal resources. The aim of this study was to expand the literature on job characteristics, personal resources, and employee well-being (1) by taking a reversed causation perspective and (2) by investigating the dynamic nature of these relations in a latent change model. More specifically, we hypothesized that baseline levels and change in affective well-being are related to change in emotional demands and autonomy, two core job characteristics for our sample of psychotherapists. In addition, we explored the mediating role of hope as a personal resource in this process. A total of 326 psychotherapists participated in a two-wave online survey with a 5-month time lag. Results revealed that baseline levels of and change in affective well-being were associated with change in emotional demands. Furthermore, change in hope mediated the effect of change in affective well-being on change in autonomy. In conclusion, the results show that affective well-being can mark a starting point for building personal resources and changing employees' perceptions of their job characteristics.

Practitioner points

- Employees with high levels of affective well-being perceive fewer emotional demands at work over time.
- An increase in affective well-being over a period of 5 months further decreases their experience of emotional demands at work.
- Employees whose affective well-being increases over time build hope at work. This, in turn, goes along with a more positive perception of their autonomy at work.

Background

Research on occupational health has consistently revealed that job demands impair well-being and job resources promote it (see Bakker & Demerouti, 2007; de Lange, Taris, Kompier, Houtman, & Bongers, 2003; Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). Furthermore, positive effects of personal resources on well-being have been found among employees (Mäkikangas & Kinnunen, 2003; Mäkikangas, Kinnunen, & Feldt, 2004). Conversely, as information processing is highly selective and consistent with an individual's affective state (Rusting, 1998), well-being may affect the individual's perception of job characteristics and personal resources. Only a few studies have adopted this reversed causation perspective, for example, by investigating the effects of depressive symptoms on perceived job characteristics (e.g., Moyle, 1998; Prosser et al., 1997; Taris, Bok, & Caljé, 1998) or personal resources (Peleg, Barak, Harel, Rochberg, & Hoofien, 2009). However, these studies have taken a deficit-oriented perspective by focusing on impaired well-being in terms of depression or anxiety as starting points. A resource-oriented perspective that focuses on the potentially positive effects of well-being on perceived job characteristics may shed some light on the processes that affect employees' evaluations of their work environments.

Associations between job characteristics, personal resources, and well-being are typically modelled in a static fashion: Individual differences in levels of job characteristics and personal resources at baseline are used to explain individual differences in well-being in follow-up measurements (de Lange et al., 2003; Mäkikangas & Kinnunen, 2003; Mäkikangas et al., 2004). Such approaches fail to take intra-individual variability in these variables into account (Geiser, Eid, Nussbeck, Courvoisier, & Cole, 2010). We argue that to better understand the relations between well-being, personal resources, and job characteristics as well as the potential impact of

interventions aimed at enhancing well-being, one has to learn how changes in well-being, and not merely baseline levels of well-being, lead to changes in people's perceptions of their work environments and personal resources. As job characteristics have a strong impact on job performance (Gilboa, Shirom, Fried, & Cooper, 2008; Morgeson, Delaney-Klinger, & Hemingway, 2005) and turnover (Geurts, Schaufeli, & de Jonge, 1998; Schaufeli & Bakker, 2004), understanding what predicts change in perceived job characteristics for the better is of high relevance for organizations.

Psychotherapists comprise a neglected occupational group in the OHP literature with high risks for emotional exhaustion (Lasalvia et al., 2009; Lloyd & King, 2004), depression, and anxiety (Radeke & Mahoney, 2000). Their main task involves intense interactions with other people which typically go along with high emotional demands (de Jonge & Dormann, 2003). With regard to job resources, autonomy is a core resource for psychotherapists (Dlugos & Friedlander, 2001). Positive effects of autonomy as well as negative effects of emotional demands on well-being have been found for health care workers in general (Epstein & Silvern, 1990; Le Blanc, Bakker, Peeters, van Heesch, & Schaufeli, 2001; Savicki, 1993). In addition to these job characteristics, hope has been identified as a core personal resource for those engaged in therapeutic work (Snyder, Feldman, Taylor, Schroeder, & Adams, 2000; Snyder, Parenteau, Shorey, Kahle, & Berg, 2002). For both job characteristics and hope, reverse causation effects of well-being have not yet been studied. Yet, as the well-being of psychotherapists has been linked to therapy success and benefits to patients (e.g., Beutler et al., 2003; McCarthy & Frieze, 1999), insights into the potentially positive consequences of well-being for this occupational group may provide an important starting point for signalling the need for interventions that are aimed at enhancing well-being.

The aim of this study was threefold: First, building on the associative network theory (ANT, Bower, 1981), we investigated whether well-being would affect psychotherapists' perceptions of two of their core job characteristics, namely emotional demands and autonomy. Second, drawing on Fredrickson's (2001) broaden-and-build theory, we proposed that affective well-being would lead to an increase in the personal resource of hope and that hope would mediate the relation between well-being and job characteristics. Third, by considering both the static baseline effects of well-being and change in well-being over time, we took into account interindividual variability in intra-individual change in well-being and its effects on change in perceived emotional demands, autonomy, and hope. With this research, we aimed to shed some light on the dynamic nature of the proposed relations with the goals of pointing out alternative pathways that may affect employees' evaluation of their work and of identifying potential starting points for interventions.

Selective Information Processing

People tend to selectively attend to, retrieve, and remember information that is consistent with their affective states. Network theories of affect such as the ANT (Bower, 1981; Bower & Cohen, 1982) propose a close interdependence between affect and cognition (Forgas & George, 2001) and postulate that emotional processing occurs across several aspects of the cognitive system such as attention, memory, or judgment. In essence, the ANT claims that a person's judgment is mood-congruent and that affect colours a person's judgments and behavioural responses. For example, a psychotherapist who is working with a difficult client is likely to judge this situation as less demanding when in a cheerful mood than when feeling angry or upset. Indeed, the literature has provided ample evidence that negative affect such as a sad mood (Halberstadt, Niedenthal, & Kushner, 1995) or specific emotions such as anxiety or anger

negatively affect a person's judgment (MacLeod & Rutherford, 1992; Rusting, 1998; Rutherford, MacLeod, & Campbell, 2004).

Although the ANT (Bower, 1981) explicitly suggests selective information processing for both negative and positive affects, the literature has provided comparably less evidence for positive mood-congruent processing. For example, Tamir and Robinson (2007) found that positive mood increased the processing of positive or desirable information. Also, happy people were found to think more positively about the same life events than unhappy participants (Lyubomirsky & Tucker, 1998). Finally, in experimental research, higher positive affect has been associated with an attentional preference for positive information (Grafton, Ang, & MacLeod, 2012; Mauer & Borkenau, 2007).

The Effect of Affective Well-Being on Perceived Job Characteristics

The definition of positive affect is somewhat controversial in the literature (Forgas & George, 2001). In this study, we use the term affective well-being, a component of the broader construct of subjective well-being, which is defined as ‘peoples' positive evaluations of their lives [that] include positive emotion, engagement, satisfaction, and meaning’ (Diener & Seligman, 2004, p. 1). Subjective well-being comprises affective and cognitive components, which are highly intertwined. Affective well-being refers to the intensity and frequency of positive and negative affect; in other words, it refers to ‘the statistics of the momentary affective states experienced during the reference period’ (Kahneman & Riis, 2005, p. 287). Cognitive well-being represents people's evaluations and judgments about life in general or specific life domains such as life or job satisfaction (Kahneman & Riis, 2005). Across studies, people have reported considerable fluctuations in affective well-being, whereas cognitive well-being has shown more stability over time (e.g., Eid & Diener, 2004; Schimmack, Schupp, & Wagner,

2008). Studies that have examined the stability of subjective well-being have revealed that stable trait effects account for only 33–47% of the variance in affective well-being as compared with 74–83% of the variance in cognitive well-being (Eid & Diener, 2004).

The empirical literature has revealed that well-being is related to the retrieval of more positive life events (Seidlitz & Diener, 1993). With regard to the context-specific life domain of work, positive effects of well-being have also been demonstrated for judgments of job characteristics. For example, employees who reported that they 'felt good' also had more favourable perceptions of task characteristics at work (Kraiger, Billings, & Isen, 1989). Likewise, employees with better well-being perceived lower levels of job demands over time (de Lange, Taris, Kompier, Houtman, & Bongers, 2005). The authors argued that employees with better well-being were likely to have more energy to accomplish their tasks, and this led them to re-evaluate their job demands as less demanding over time. Finally, employees who rated themselves as high on positive affect reported higher levels of autonomy across a time lag of several years (Roberts & Gamble, 2001; Staw, Sutton, & Pelled, 1994). These studies took a reversed causation perspective to investigate effects of subjective well-being on perceived job characteristics. However, they applied a static approach to studying baseline effects of well-being on perceived job characteristics. Given that the affective component of well-being tends to fluctuate over time and that perceived job characteristics have a stable as well as a changing (i.e., statelike) component, which is likely to change over time (e.g., Brauchli, Schaufeli, Jenny, Füllemann, & Bauer, 2013; Schaufeli, Bakker, & van Rhenen, 2009), change in well-being needs to be considered in order to fully understand the mechanisms and effects of these less stable components.

Indeed, several studies outside the work setting have shown that changes in affect were related to changes in emotional processing. For example, Mayer and Hanson (1995) found that changes in mood covaried with changes in judgment. With regard to depression, studies have shown that a decrease in depressive symptoms was associated with a decrease in the attention paid to negative information in a listening task (McCabe & Gotlib, 1993) and a decrease in the recall of negative information (Hammen, Miklowitz, & Dyck, 1986).

We claim that these change-to-change relations that have been shown for the effect of negative affective states on negative information processing also hold for positive information processing in the work context. The ANT (Bower, 1981) provides a theoretical framework for positive mood-congruent processing. Several empirical studies that investigated static effects have provided support for this framework in the work context (de Lange et al., 2005; Roberts, Caspi, & Moffitt, 2003; Staw et al., 1994). We therefore expected that affective well-being would have positive effects on changes in perceived job characteristics. Over and above these static effects of affective well-being, we expected that change in affective well-being would be related to change in perceived job characteristics. More specifically, with regard to our study population of psychotherapists and their two core job characteristics, we expected that an increase in affective well-being would be associated with a decrease in perceived emotional demands. Likewise, we expected that an increase in affective well-being would be associated with an increase in perceived autonomy. By simultaneously investigating stability and change in our models, a more differentiated estimation could be made for the influence of affective well-being on perceived job characteristics, clearly distinguishing between static and fluctuating effects.

Hypothesis 1: Baseline affective well-being and change in affective well-being are related to change in perceived emotional demands.

Hypothesis 2: Baseline affective well-being and change in affective well-being are related to change in perceived autonomy.

The Effect of Affective Well-Being on Hope

Personal resources are aspects of the self that are generally linked to resilience and concern individuals' perceptions of their ability to successfully control and impact their environment (Hobfoll, Johnson, Ennis, & Jackson, 2003). The personal resource of hope has been defined as a 'positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)' (Snyder, Irving, & Anderson, 1991, p. 287). This model of goal-directed thinking has been applied to the work setting through a focus on work-related goals (Luthans, 2002; Luthans, Youssef, & Avolio, 2007). More specifically, the role of hope has been investigated in the context of psychotherapy (e.g., Snyder et al., 2000). Snyder et al. (2000, pp. 257–258) stated that 'psychotherapies "work" precisely because they enable people to identify goals that represent solutions to their problems, they specify particular routes for reaching those goals (i.e., pathways thinking), and they motivate clients to use those routes so as to implement change (i.e., agency thinking)'. We argue that hope is an important resource not only for the patients but also for the psychotherapists themselves. To help patients to set clear, objective, and reachable goals in the treatment process, psychotherapists need to set their own goals for the therapy, and both the psychotherapist and the patient need to specify pathways through which to attain these goals. Moreover, psychotherapists need to react to changes in the mental states of their patients and to adapt the goals in the therapy process.

Fredrickson (2001) postulated in her broaden-and-build theory that positive affect – a component of affective well-being – 'broaden[s] people's momentary thought-action repertoires, which in turn serve to build their enduring personal resources' (p. 218). Positive emotions such as happiness, interest, and contentment drive individuals to actively build resources. In turn, employees who experience positive emotions may not only perceive their job characteristics in a more positive light, but also gain hope in the form of energy and motivation to help them work towards their goals (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). The literature provides evidence that people who rate themselves as high on well-being report enhanced self-perceptions (Lyubomirsky, King, & Diener, 2005). More specifically with regard to hope, life satisfaction was positively associated with hope at the cross-sectional level (Bailey, Eng, Frisch, & Snyder, 2007). At the longitudinal level, research with university employees and students revealed that positive emotions enhanced hope on a daily basis (Ouweneel, Le Blanc, Schaufeli, & van Wijhe, 2012) and across a time lag of 4 weeks (Ouweneel, Le Blanc, & Schaufeli, 2011). Again, these studies took a static approach to investigating these relations. However, Fredrickson (2001) explicitly stated that 'positive emotions *broaden* people's thought-action repertoires' which, in turn, '*build* their enduring personal resources' (Fredrickson, 2001, p. 218). We therefore propose that building hope is a dynamic process that involves development and, thus, change over time. More specifically, we expected that an increase in affective well-being would be likely to evoke an increase in hope over time. Thus, we hypothesized:

Hypothesis 3: Baseline affective well-being and change in affective well-being are related to change in hope.

The Mediating Role of Hope

In the previous sections, we provided a rationale for proposing reversed causation effects of affective well-being on perceived job characteristics and hope. Over and above these direct effects, we claim that hope can serve as a possible mediator in the relation between affective well-being and perceived job characteristics. Having already explained the path from affective well-being to hope, in the following, we provide a rationale for the effects of hope on emotional demands and autonomy, respectively.

In an experiment, Snyder, LaPointe, Jeffrey Crowson, and Early (1998) showed that more hopeful people noticed and recalled positive stimuli more easily than less hopeful people. We therefore assume that also in the work setting, more hopeful employees will recall positive conditions at work such as autonomy more easily then less hopeful employees. Furthermore, Snyder (2002) proposed that through goal-directed thinking, hopeful people would have a higher perceived capacity to produce routes to their desired goals. Accordingly, hopeful employees would be likely to produce multiple routes or pathways to reach their work goals (Adams et al., 2002). We propose that in searching for these routes, employees are likely to make use of the degrees of freedom that they have readily available at work and are therefore likely to perceive and experience higher autonomy.

On the contrary, experimental research on the selective recall of negative information has shown that when participants lose hope, they become less able to filter out the negative, which then becomes more accessible to memory (Snyder et al., 1998, p. 816). Snyder et al. argued that hopeful people have the ability to block out negative stimuli more easily, whereas less hopeful people cannot block out the negative and also recall it more easily. We propose similar effects of hope on the evaluation of emotional demands at work, and we illustrate this idea by returning to

our example of a psychotherapist who faces a demanding client. In the same situation, a hopeful psychotherapist may more easily create pathways for achieving his or her work goals in a therapy session and may therefore experience and evaluate the session as emotionally less demanding. A less hopeful psychotherapist may fail to develop pathways with his or her client and, in addition, may be more likely to recall the emotional demands experienced in the therapy session.

In combining these two pathways of affective well-being on hope and of hope on perceived emotional demands and autonomy, we propose that hope serves as an underlying mechanism in the relations of affective well-being to autonomy and emotional demands, respectively:

Hypothesis 4: Baseline hope and change in hope are related to change in perceived emotional demands.

Hypothesis 5: Baseline hope and change in hope are related to change in perceived autonomy.

Hypothesis 6: Change in hope serves as a mediator of the relations between affective well-being and emotional demands.

Hypothesis 7: Change in hope serves as a mediator of the relations between affective well-being and autonomy.

Method

Participants

The current study is part of an extensive two-wave online questionnaire study on occupational health among psychotherapists in Germany. The email addresses of potential participants were obtained from the mailing list of the State Chamber of Psychotherapists, and a

link was posted on the website of the German Association of Psychological Psychotherapists as well. Due to the use of the online link, the response rate for the first measurement occasion could not be determined. The time lag between the measurement points was 5 months. In total, 771 psychotherapists participated at T1, of which 665 voluntarily gave us their e-mail addresses and were willing to participate at T2. In the end, 326 (49%) of these psychotherapists also participated at T2.

To control for potential selection bias due to dropout, we examined whether psychotherapists who participated twice ($N = 326$) differed from the dropouts ($N = 445$) with regard to their baseline levels on the study variables. The results of MANOVAs showed that the two samples did not differ in gender, $\chi2(1) = 0.02$, $p = .89$, but did differ in professional experience, $F(2, 754) = 5.63$, p = .018, and age, $F(2, 754) = 5.98$, $p = .015$. We found no differences in the mean scores of emotional demands, $F(4, 765) = 0.23$, $p = .63$, autonomy, $F(4, 765) = 0.23$, $p = .63$, hope, $F(4, 765) = 3.48$, $p = .06$, and affective well-being, $F(4, 765) = 0.80$, $p = .37$. In summary, the results of the multivariate analyses suggested a slight selection effect with regard to age and professional experience only. Psychotherapists who participated twice were on average 2 years younger than the dropouts.

The final study sample consisted of 244 women (74.8%) and 82 men (25.2%). They ranged in age from 24 to 70 years ($M = 45.36$, $SD = 10.79$). Their professional experience varied from 6 months to 39 years ($M = 15.62$, $SD = 13.52$). The majority of the psychotherapists were self-employed ($N = 202$, 53.6%) or worked in hospitals ($N = 74$, 19.6%). Their weekly working hours ranged from 6 to 75 hr ($M = 40.23$, $SD = 13.59$).

Measures

Affective well-being was assessed with the German version of the WHO (5) Well-being Index (WBI-5, WHO, 1998). The scale consists of five items, which cover positive emotions in the last 2 weeks ('I felt cheerful and in good spirits'), vitality ('I felt active and vigorous'), and general interests ('My daily life has been filled with things that interest me'). Each of the items is rated on a 6-point Likert scale ranging from 0 (at no time) to 5 (all of the time). The WBI has very good psychometric properties (Löwe et al., 2004).

To measure *hope*, we applied four items derived from the short version of the Psychological Capital Questionnaire (Luthans, Avey, Clapp-Smith, & Li, 2008; Luthans, Avolio, Avey, & Norman, 2007). All items (e.g., 'I can think of many ways to reach my current work goals') ranged from 0 (strongly disagree) to 5 (strongly agree).

Emotional demands and autonomy were assessed with the Dutch Questionnaire on Work Experience (VBBA, van Veldhoven & Meijman, 1994). We used four items to measure emotional demands (e.g., 'Are you confronted with things that affect you personally in your work?') and three items to measure autonomy (e.g., 'Can you decide on your own how to perform your tasks?'). All items were rated on a 4-point scale ranging from 0 (never) to 3 (always). Cronbach's alphas for all scales appear in Table 1.

Table 1

Means (M), Standard Deviations (SD), Intercorrelations, and Reliabilities for all Study Variables

	M	*SD*	Theoretical range	1	2	3	4	5	6	7	8
1. Affective well-being T1	2.97	0.87	0–5	(.83)							
2. Affective well-being T2	2.98	0.88	0–5	.59**	(.85)						
3. Hope T1	3.65	0.67	0–5	.44**	.41**	(.80)					
4. Hope T2	3.58	0.72	0–5	.40**	.50**	.70**	(.84)				
5. Emotional demands T1	1.41	0.43	0–3	−.10	−.14*	−.11*	−.07	(.77)			
6. Emotional demands T2	1.43	0.44	0–3	−.12*	−.16**	−.08	−.04	.64**	(.79)		
7. Autonomy T1	2.23	0.50	0–3	.25**	.27**	.37**	.31**	−.11*	−.06	(.71)	
8. Autonomy T2	2.26	0.49	0–3	.25**	.33**	.37**	.32**	−.02	−.10	.66**	(.72)

Note. *$p < .05$; **$p < .01$.

Data Analysis

Within the latent state–trait (LST) theory, latent variables are conceptualized to reflect latent-state and latent-trait components (Steyer, Geiser, & Fiege, 2012). In this theory, latent-state factors represent the latent state of individuals on a construct at a measurement occasion. The extension of the LST model applied in this study, namely the latent change model (Steyer, Eid, & Schwenkmezger, 1997), allows the user to include change as a latent factor in order to examine interindividual differences in intra-individual change. Thus, the latent change model reflects both the more stable and the more fluctuating components of the constructs and allows change–change associations to be investigated. Consequently, we were able not only to identify whether a specific level of affective well-being was related to a specific level of perceived job characteristics and personal resources, but also to examine whether changes in affective well-being were associated with changes in the perceptions of these constructs.

Latent change models (Steyer et al., 1997) are based on a confirmatory factor analysis (CFA) measurement model with two or more measurement occasions. A requirement of the models is the assumption of measurement invariance over time (Meredith, 1993); that is, the links between indicators and their underlying latent variables need to remain the same over time. This implies that the loadings and intercepts of all variables are time invariant, which indicates that the discrimination and difficulty of a scale do not vary across measurement occasions (Geiser et al., 2010). The assumption of measurement invariance is required for a meaningful interpretation of the latent change factors.

The basic idea of latent difference or true change models is that a latent-state factor at Time 2 can be decomposed into the initial latent-state factor at Time 1 and a latent change factor (Geiser et al., 2010). This simple reformulation leads to a latent difference factor, which

represents true interindividual differences in intra-individual change from T1 to T2 and can be treated like the other factors in the CFA model (i.e., its associations with other variables included in the model can be estimated).

Indicator-specific effects were modelled through indicator-specific factors for the second indicator of each latent variable (Steyer et al., 1997). For all latent variables, we used the first indicators as reference indicators with no indicator-specific factors. Residual variances in models with repeated measurements capture both measurement error and indicator specificity (Geiser et al., 2010), resulting in auto-correlations between the corresponding error variables. Allowing for autocorrelations only (Cole & Maxwell, 2003) does not explain the systematic sources of variance and hence underestimates the reliability of the indicators. We therefore modelled time-invariant indicator-specific factors, which, by definition, were uncorrelated with the latent factors representing the same construct. For identification purposes, the loading of the first indicator of each latent variable was fixed to 1. Furthermore, all T1 variables were allowed to correlate with each other and with the change variables. Affective well-being at T1 and its change score were specified as predictors of the change scores for hope, autonomy, and emotional demands. In addition, hope at T1 and its change score were specified as predictors of changes in autonomy and emotional demands.

Following Marsh, Hau, and Grayson's (2005) specifications, we used the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) to evaluate goodness of fit as well as the normal theory chi-square test statistic and an evaluation of parameter estimates. The CFI ranges from 0 to 1, with values >.90 and .95 typically reflecting acceptable and excellent fit, respectively. RMSEA values of <.05 and .08 reflect close and reasonable fit, respectively; values between .08 and .10 reflect a moderate fit; and values >.10 are unacceptable.

For model estimation, we used Mplus version 7 (Muthén & Muthén, 2012) with full information maximum likelihood estimation. The mediation effect was tested using the RMediation package (Tofighi & MacKinnon, 2011). Confidence intervals for indirect effects were estimated with the Monte Carlo method.

Results

The latent change model showed an excellent fit to the data: $\chi 2(63, N = 326) = 80.78$, $p = .065$; CFI = .99; RMSEA = .03, $p_{RMSEA} = .98$; SRMR = .03, indicating a very good approximation between the empirical and model-implied covariance matrices.

Measurement Models

The unstandardized intercepts, unstandardized and standardized factor loadings, and reliabilities of the indicators are displayed in Table 2. The standardized factor loadings for affective well-being and hope were relatively high compared with the standardized loadings on the indicator-specific factors for these variables. By contrast, the indicator-specific loadings for autonomy and emotional demands were relatively high, indicating a large proportion of indicator-specific variance. The reliability coefficients (the sum of squared loadings on latent and indicator-specific factors) ranged from high to acceptable, and all were significant.

Table 2

Estimated Intercepts, Factor Loadings, and Reliabilities in the Latent Change Model

		State factor loading				Indicator-specific factor loading		
	Intercept (*SE*)	Estimate (*SE*)	*z*-value/*p*-value	Standardized estimate (*SE*)	*z*-value/*p*-value	Estimate (*SE*)	Standardized estimate (*SE*)	Reliability (total)
Affective well-being 11′	0.00 (–)	1* (–)	–	.96 (.03)	34.27/<.001	–	–	.93
Affective well-being 21	0.00[a] (.21)	.83[e] (.06)	13.13/<.001	.67 (.04)	19.28/<.001	1* (–)	.52 (.03)	.73
Affective well-being 12	0.00 (–)	1* (–)	–	.93 (.03)	34.38/<.001	–	–	.87
Affective well-being 22	0.00[a] (.21)	.83[e] (.06)	13.13/<.001	.69 (.03)	20.29/<.001	1* (–)	.53 (.03)	.76
Hope 11	0.00 (–)	1* (–)	–	.88 (.02)	43.03/<.001	–	–	.77
Hope 21	0.26[b] (.16)	.93[f] (.04)	21.62/<.001	.78 (.03)	29.38/<.001	1* (–)	.33 (.05)	.71
Hope 12	0.00 (–)	1* (–)	–	.94 (.02)	56.70/<.001	–	–	.89
Hope 22	0.26[b] (.16)	.93[f] (.04)	21.62/<.001	.85 (.02)	41.77/<.001	1* (–)	.29 (.04)	.79
Emotional demands 11	0.00 (–)	1* (–)	–	.75 (.03)	23.31/<.001	–	–	.55
Emotional demands 21	0.83[c] (.12)	.85[g] (.11)	7.97/.001	.48 (.05)	9.16/<.001	1* (–)	.62 (.04)	.61
Emotional demands 12	0.00 (–)	1* (–)	–	.83 (.05)	17.76/<.001	–	–	.68
Emotional demands 22	0.83[c] (.12)	.85[g] (.11)	7.97/.001	.55 (.05)	11.44/<.001	1* (–)	.59 (.04)	.64
Autonomy 11	0.00 (–)	1* (–)	–	.76 (.03)	24.43/<.001	–	–	.57
Autonomy 21	1.02[d] (.16)	.60[h] (.07)	8.62/<.001	.47 (.05)	9.61/<.001	1* (–)	.57 (.04)	.54
Autonomy 12	0.00 (–)	1* (–)	–	.87 (.04)	20.11/<.001	–	–	.75
Autonomy 22	1.02[d] (.16)	.60[h] (.07)	8.62/<.001	.53 (.05)	11.79/<.001	1* (–)	.53 (.04)	.57

Note. Time-invariant parameters have the same superscript letters. Fixed parameters are marked with an asterisk (*).

′ The first number of each variable refers to the indicator; the second number refers to the measurement occasion.

Structural Model of Latent Change

All relations within the structural model are presented in Figure 1. Consistent with Hypothesis 1, baseline affective well-being negatively affected the change in emotional demands ($\beta = -.27$, $p = .049$). In addition, change in affective well-being was significantly ($\beta = -.29$, $p = .039$) related to interindividual differences in intra-individual change in emotional demands. Negative path coefficients indicated that an increase in affective well-being between T1 and T2 was associated with a reduction in emotional demands. Thus, Hypothesis 1 was supported. In contrast to these findings, neither baseline affective well-being nor change in affective well-being was related to change in autonomy (baseline: $\beta = -.14$, $p = .20$; change: $\beta = .09$, $p = .43$). Thus, we did not find support for Hypothesis 2.

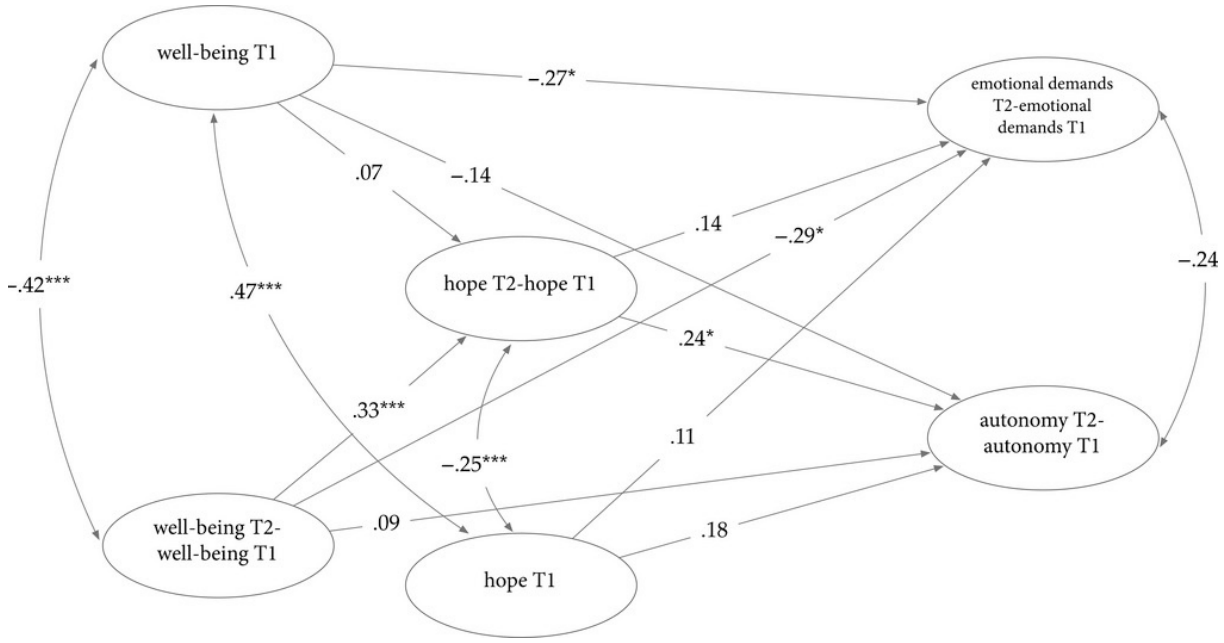

Figure 1. The structural model with standardized path coefficients. *p < .05; ***p < .001.

For Hypothesis 3, baseline affective well-being did not affect change in hope (β = .07, p = .39), whereas change in affective well-being (β = .33, p < .001) did. That is, an increase in affective well-being was associated with an increase in hope. Thus, Hypothesis 3 was partially supported. In Hypothesis 4, we postulated that hope would affect change in emotional demands. However, neither baseline hope nor change in hope was related with change in perceived emotional demands (baseline: β = .11, p = .42; change: β = .14, p = .28). Thus, Hypothesis 4 was not supported. Regarding the effects on change in autonomy in Hypothesis 5, we found no significant effects for baseline hope (β = .18, p = .09), but change in hope was significantly related to change in autonomy (β = .24, p = .015). A positive path coefficient indicated that an increase in hope was related to an increase in perceived autonomy over time. Accordingly, Hypothesis 5 was partially supported.

With regard to the postulated mediation effects (Hypotheses 6 and 7), we found that the relationship of change in affective well-being with change in emotional demands was not mediated by change in hope (unstandardized indirect effect: b = .01; Monte Carlo 95% CI [−0.01, 0.04]). The indirect effect of baseline affective well-being on change in emotional demands was not tested due to non-significant associations between change in hope with the predictor (i.e., baseline affective well-being) and outcome (i.e., change in emotional demands). Thus, Hypothesis 6 was not supported.

In contrast, we could confirm that change in hope mediated the relation between change in affective well-being and change in autonomy (unstandardized indirect effect: b = .04; Monte Carlo 95% CI [0.01, 0.09]). The effect size for the indirect effect (index of mediation) was .08 (CI [0.01, 0.17]), indicating a small effect. However, change in hope did not mediate the relation

between baseline affective well-being and change in autonomy (unstandardized indirect effect: b = .01; Monte Carlo 95% CI [−0.01, 0.03]). Thus, Hypothesis 7 was only partially supported.

Overall, 8% of the variance in change in emotional demands and 27% of the variance in change in autonomy were explained by baseline levels of and change in affective well-being and hope. In addition, we found that change in emotional demands was negatively associated with change in autonomy (r = −.24, p = .06).

Discussion

The first aim of this study was to investigate whether baseline levels of and change in affective well-being were related to change in perceived emotional demands and autonomy. Second, we aimed to shed some light on the role of hope in this process by testing whether baseline levels of and change in affective well-being were associated with change in hope and, next, whether hope would mediate the relations between affective well-being and perceived job characteristics. With this study, we expanded the literature on the relations between perceived job characteristics, personal resources, and well-being (1) by taking a reversed causation perspective and (2) by investigating the dynamic nature of these relations with a latent change modelling approach. In the following sections, we will first discuss our findings concerning the static and dynamic effects of affective well-being on emotional demands and autonomy and then turn to the role of hope in this process.

Effects of Affective Well-Being on Perceived Emotional Demands and Autonomy

The ANT (Bower, 1981) postulates that people selectively process information and that positive affect leads to a more positive judgment of one's environment. In line with these premises, our findings revealed that baseline levels of affective well-being predicted change in perceived emotional demands. More specifically, psychotherapists who rated themselves higher

on affective well-being also perceived fewer emotional demands at work over time. Thus, in line with the assumptions of ANT, we could confirm that affective well-being influences employees' cognitions and colours their judgment of job demands. This finding on positive information processing complements the literature on negative information processing in non-work-related contexts, which has shown that people with subclinical depression (Bradley & Mathews, 1983; Mogg, Bradley, Williams, & Mathews, 1993) or anxiety (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & van IJzendoorn, 2007; Kindt & Brosschot, 1998) perceive and recall negative cues or information more easily (see also Beck, 1976).

Over and above baseline effects, change in affective well-being explained additional variance in change in perceived emotional demands. That is, when psychotherapists experienced an increase in affective well-being across a time lag of 5 months, they also reported a decrease in emotional demands across the same period of time. These findings demonstrate that the common practice of testing the relationship between static variables alone leads to underestimating the predictive value of the variables under study as interindividual differences in intra-individual change over time are not considered. Hertzog and Nesselroade (1987) argued that ‘most psychological attributes will neither be, strictly speaking, traits or states’ (p. 95). That is, they can have static, traitlike components as well as dynamic, statelike components. By applying a latent change model (Steyer et al., 1997), we were able to examine interindividual differences in intra-individual change and could identify baseline effects as well as change-to-change relations. Apart from the superior methodological approach of our study, our findings also have practical relevance for the design of occupational health interventions as they imply that we need not necessarily aim for a specific level of well-being among employees, but that a change for the

better can already have long-lasting effects. We will discuss these practical implications in more detail in concert with our findings on hope.

Against expectations, affective well-being was not related to change in perceived autonomy. This finding contradicts the assumption of ANT as well as related research that has shown long-lasting effects of positive emotions on change in perceived autonomy across a time lag of 10 years (Sutin & Costa, 2010). Possibly, positive emotions that go along with affective well-being more strongly influence the evaluation of job characteristics that also involve emotional aspects such as in perceived emotional demands. Yet, when including hope in this process, we found that the association of change in affective well-being with change in perceived autonomy was mediated by change in hope. In the following, we will first discuss the finding of affective well-being on hope before turning to the mediating role of hope.

The Mediating Role of Hope

The broaden-and-build theory (Fredrickson, 2001) states that the experience of positive emotions drives people to actively build resources. Accordingly, we could show that an increase in affective well-being which involves positive emotions was related to an increase in hope across a time lag of 5 months. Following Fredrickson (2001), we therefore claim that through an increase in positive affect, employees can build their personal resources. These findings complement the literature on negative information processing in non-work-related contexts, which has shown links between depression and lower perceptions of personal resources in general and hope in particular (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999; Peleg et al., 2009).

Over and above direct effects of affective well-being, change in hope mediated the path from change in affective well-being to change in perceived autonomy. We draw on the

conservation of resources theory (Hobfoll, 1989) to discuss these findings. Hobfoll (1989) defined resources as 'objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of [these resources]' (p. 516). He postulated a dynamic process of resource gain by arguing that an increase in resources can evoke the accumulation of further resources. We found that affective well-being (i.e., an energetic resource) marked a starting point that helped to build further resources, namely hope (i.e., a personal resource), which in turn helped to build the resource of perceived autonomy (i.e., a job resource or condition). Thus, an accumulation of resources may mark a spiral of additional resource gains among employees. The results of our latent change model allow us to conclude that an increase in affective well-being goes along with an increase in perceived autonomy via an increase in perceived hope. However, as we were limited to two measurement occasions, we cannot state that an increase in affective well-being actually causes an increase in hope or, in turn, in perceived autonomy. To identify true spirals of resource gains as postulated by Hobfoll (1989), future studies need to focus on data with three or more measurement occasions.

Whereas we found a mediating effect of hope with regard to perceived autonomy, the proposed mediation effect for emotional demands was not supported. Hope is a personal resource with a strong cognitive component. On the contrary, emotional demands by definition address emotional aspects at work. In a review of studies addressing the interaction of job stressors, job resources, and strain, de Jonge and Dormann (2006) showed that job resources are more likely to serve as buffers for job stressors when both variables address either emotional or cognitive aspects of work. Perhaps this also holds true for personal resources. Hope may be more beneficial for minimizing job stressors or developing job resources that involve cognitive components as is the case for autonomy (see Frese & Zapf, 1994). Perhaps personal resources

with an emotional focus such as emotion regulation strategies could serve as a better mediator of the relations between affective well-being and emotional demands.

Our paper adds to the ongoing debate on the 'statelike' character of hope often defined as one component of psychological capital (PsyCap) (Dawkins, Martin, Scott, & Sanderson, 2013). In the latent change model, we differentiated between stable and fluctuating components of hope. Interestingly, baseline hope was related to baseline affective well-being, but did not predict change in job characteristics. On the contrary, change in hope was the only predictor variable related to change in autonomy. These findings raise the question whether state and trait components of hope may differ in their relations with affective well-being and job characteristics. Future longitudinal studies with more measurement occasions should further explore these potentially differential pathways of state and trait hope and, in addition, examine whether statelike hope can mitigate the relation between traitlike hope and job characteristics (Dawkins et al., 2013).

Strengths, Limitations, and Avenues for Future Research

In the following, we will discuss the strengths and limitations of this study and point out some directions for future research. This is one of the first studies to investigate affective well-being and job characteristics among psychotherapists, an occupational group at high risk for emotional exhaustion, depression, and anxiety (Radeke & Mahoney, 2000) and poorer general health than the norm sample (Reimer, Jurkat, Vetter, & Raskin, 2005). A major strength of our study was the use of the latent change modelling approach, which allowed us to test for interindividual differences in intra-individual change over time and, thus, to consider trait and state components as well as changes in states in our study variables. With a time lag of 5 months, this study showed effects of change in affective well-being on change in emotional demands and

hope, thus explaining more variance than could be accounted for by baseline effects. In addition to changes over this comparably long time lag, subtle changes in affective well-being on a weekly or even daily basis are likely. For example, we know from research on employees' affective responses that such responses can fluctuate across a time period of a few days (Conway & Briner, 2002). Also, the literature has provided evidence for loss spirals of resource depletion that evolve over several days (Demerouti, Bakker, & Bulters, 2004). Similar processes are likely to hold for gain spirals for which affective well-being could mark a starting point (see Hobfoll, 1989). As we were limited to two points of measurement, we could not investigate developments in resources over time. Multiple measurement occasions would allow examining the trajectories of change over time, for example in latent growth curve models. Taking a traditional perspective with job characteristics predicting affective well-being, Mäkikangas, Hyvönen, Leskinen, Kinnunen, & Feldt (2011) studied these trajectories over very long time lags of 3 and 6 years. However, in their study, reversed causations could not be tested. Future research should integrate both pathways and consider multiple time lags that also include shorter time lags – from 1 day or 1 week to the next – with multiple points of measurement to identify true spirals of resource gains.

Although the study employed two measurement occasions, we cannot draw causal conclusions. The OHP literature in the context of the job demand-control model (see de Lange et al., 2003; Nixon et al., 2011) and the job demand-resources model (Bakker & Demerouti, 2007) clearly states that job characteristics and personal resources are sources for work-related and general well-being. With our research, we do not intend to question this traditional view on cause and effect. Instead, our goal was to expand this research by drawing attention towards reverse pathways. Whereas the change-to-change relations showed associations between latent change

variables across the same time lag, the relations between baseline affective well-being and change in emotional demands and change in hope evolved over time. Ideally, future studies should simultaneously consider both pathways in testing for reciprocal effects between job characteristics, personal resources, and well-being in latent change models with three or more points of measurement.

Affective well-being and hope are constructs that are rooted in the person and are therefore ideally assessed via self-report. As we were interested in employees' perceived emotional demands and autonomy, these job characteristics were also measured via self-report instead of through an objective assessment. Whereas the use of self-report bears the risk of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), it is nevertheless the most appropriate approach for assessing how employees view and evaluate their work (Spector, 1994). Yet, Adams et al. (2002) argued that not only do hopeful employees perceive more autonomy at work, but they are also given the responsibility to find solutions to problems. Therefore, a study that considers both perceived and observed autonomy as complementary rather than alternative measures would further contribute to the literature.

As the study sample was homogeneous in profession, we ruled out the confounding effects of the job, and this is a major strength of this study. Whereas this also limits the generalizability of our findings from psychotherapists to other occupational populations, we claim that for employees in the health care sector (e.g., nurses, doctors, or elderly care workers) who are similarly exposed to high emotional demands at work (Gevers, van Erven, de Jonge, Maas, & de Jong, 2010) along with being at risk for poor well-being (Rodwell & Munro, 2013), these findings may equally apply. Yet, as the level of autonomy is likely to vary considerably

across these occupational groups, the processes related to perceived autonomy will require further investigation.

Practical Implications

Psychotherapists' well-being determines whether patients are satisfied with their treatment (Garman, Corrigan, & Morris, 2002) along with the patients' perception of the quality of care and their decision to continue therapy or to dropout (McCarthy & Frieze, 1999). Thus, their well-being has direct implications for therapy success. These relationships between employee well-being and patient outcomes or quality of care also apply to other occupations in the health care sector (Grembowski et al., 2005). In our sample, affective well-being was related to perceived emotional demands and, mediated through hope, to perceived autonomy. Emotional demands, in turn, have been shown to be strongly related to poorer medical performance among doctors (Schaufeli, Bakker, van der Heijden, & Prins, 2009), whereas autonomy has been shown to lead to higher job performance (Schaufeli & Bakker, 2004). More specifically, among psychotherapists, autonomy has been related to job commitment (Dlugos & Friedlander, 2001; Priebe, Fakhoury, Hoffmann, & Powell, 2005), a correlate of job performance (Riketta, 2002). Whereas we did not assess performance-related measures in our study, the literature clearly states that both well-being and job characteristics are likely to impact job performance. Therefore, understanding the interplay of affective well-being and job characteristics is of practical relevance for employees themselves, their patients, and the organizations they work for.

Our findings show that an increase in affective well-being and hope leads to a better perception of job characteristics. Therefore, promoting affective well-being and hope can provide a promising starting point for interventions. The literature has already presented various promising intervention approaches in this regard. For example, Bono, Glomb, Shen, Kim, &

Koch (2013) could show that a daily intervention which encouraged employees in clinics to reflect upon positive work events improved their health and well-being. Furthermore, interventions for employees that aim to develop hope have led to significant increases in hope across a time lag of several weeks (Luthans, Avey, & Patera, 2008). These interventions have been shown to be particularly beneficial for individuals who are at risk of mental health impairments (Sin & Lyubomirsky, 2009), a condition that also applies to our study population. Returning to Hobfoll (1989) who proposed that an increase in resources (e.g., in well-being or hope) stimulates further resource gains (e.g., in job resources), a combination of interventions that aim to improve both employees' well-being and their hope is most likely to initiate gain spirals as they trigger positive processes at different starting points. ANT (Bower, 1981) can be used to explain how positive affect influences perceptions of job characteristics through the mechanism of positive information processing. However, this does not imply true change of objective job characteristics. Whereas person-level interventions that build well-being or hope have the potential to change the perception of job characteristics to the better, an improvement of objective working conditions primarily needs to be achieved by health-enhancing work design initiated by the employer.

Conclusion

This study showed that employees with high levels of and an increase in affective well-being across a period of 5 months perceived a decrease in emotional demands at work. Furthermore, employees whose affective well-being increased over time built up more hope at work and this, in turn, went along with perceiving more autonomy at work. By adopting a dynamic perspective that included trait and state components of affective well-being, this research demonstrated that investigating baseline differences only may underestimate true

effects. Moreover, it demonstrated that cultivating well-being not just as an end state but also as a means for building hope and improving employees' evaluations of their work over time may provide a promising approach for interventions and future research.

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