Dispositional Optimism Fosters Opportunity-Congruent Coping With Occupational Uncertainty

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Abstract

**Objective.** We investigated the relationship between dispositional optimism and coping with growing occupational uncertainty, drawing on the lifespan theory of control to assess coping.

**Method.** Participants were 606 German adults with various sociodemographic backgrounds, aged 16–43. They were interviewed at the end of 2005 (Time 1) and at the beginning of 2007 (Time 2). We regressed each control strategy at Time 2 on its scores at Time 1, optimism at Time 1, three moderating variables, and their interactions with optimism.

**Results.** Dispositional optimism predicted an increase in both goal engagement strategies (selective primary and compensatory primary control) only under favourable conditions (low regional unemployment rate, low perceived growth in occupational uncertainty, and high perceived controllability of this stressor). Specific conditions moderating the effects of optimism differed between the two engagement strategies. In addition, an unfavourable labour market situation as such prompted an increase in goal engagement. No effects of optimism on goal disengagement (compensatory secondary control) at Time 2 were found.

**Conclusions.** The effects of dispositional optimism on the change in control strategies were contingent on the labour market situation, which supports the view that optimists are better able to tailor their coping responses to available opportunities.

Keywords: dispositional optimism, coping, social change, job insecurity, young and middle adulthood
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Although the German economy has long been considered among the most prosperous in the world, historical changes of the past few decades—German reunification, expansion of the European Union, globalization of the world economy—have challenged its sustainability, leading to stagnation and increased unemployment rates (Siebert, 2005). Certain groups of workers, such as residents of economically disadvantaged regions, low qualified individuals, and labour market entrants, find themselves at a greater risk for unemployment or precarious employment relationships (Buchholz & Kurz, 2008; Gebel & Giesecke, 2009). Economic challenges, along with the ensuing efforts of German policy makers to liberalize the labour market (Jacobi & Kluve, 2007), may result in a gradual erosion of a traditional career path with its stability and predictability (Tomasik & Silbereisen, 2009).

Growing uncertainty in the labour market may be a powerful stressor as it induces job insecurity (Sverke & Hellgren, 2002). One’s ability to respond to stress in an adaptive way depends heavily on their personal and social resources (Carver & Connor-Smith, 2010; Hobfoll, 2001; Lazarus & Folkman, 1984). In particular, dispositional optimism, which is a positive personality resource, is known to promote effective coping with stressors and thereby to enhance physical and mental health (Carver & Scheier, 2002; Solberg Nes & Segerstrom, 2006). In the present study, we addressed the link between dispositional optimism and coping with occupational uncertainty among young and middle-aged Germans, focusing especially on the potential moderators of this relationship.

Coping With Stress and the Role of Optimism

Coping is often conceptualized as conscious, voluntary responses aimed at prevention of threat, harm, or loss, and distress reduction (Carver & Connor-Smith, 2010; Lazarus & Folkman, 1984). Various theories and classifications of coping exist, commonly
distinguishing between problem- and emotion-focused coping (dealing with the stressor vs. attempting to reduce the distress experienced; Lazarus & Folkman, 1984) and between engagement (approaching the stressor and related emotions) and disengagement (avoiding the stressor and related emotions) coping (Roth & Cohen, 1986). Individuals presumably choose an appropriate coping strategy on the basis of their appraisal of the situation, which depends on stressor type and resources for dealing with it. For instance, problem-focused coping is deemed more adequate when the stressors are perceived as controllable, whereas emotion-focused coping may fit better with uncontrollable stressors (Lazarus & Folkman, 1984).

Optimism is one of the key personal resources that may influence the choice of coping strategies. Dispositional optimism and pessimism refer to generalized expectancies about the future (confidence and doubt, respectively; Carver & Scheier, 2002). Individuals who feel confident about the outcomes of their actions are more likely to make an effort than those who feel doubtful. Consequently, dispositional optimism seems to be associated with a general preference for engagement coping (Brissette, Scheier, & Carver, 2002; Carver et al., 1993; Fontaine, Manstead, & Wagner, 1993; Iwanaga, Yokoyama, & Seiwa, 2004; Scheier, Weintraub, & Carver, 1986; Solberg Nes & Segerstrom, 2006). Optimists are also more likely to perceive a stressful situation as controllable and therefore to rely on problem-focused coping (Chang, 1998; Fontaine et al., 1993; Peacock & Wong, 1996). When the stressor is definitely uncontrollable, optimists may still resort to emotion-focused coping (Scheier et al., 1986; cf. Iwanaga et al., 2004). In their meta-analysis, Solberg Nes and Segerstrom (2006) concluded that optimists always prefer engagement coping but switch between problem- and emotion-focused coping, depending on controllability of the stressor. That is, optimists may be more flexible than pessimists in their choice of coping strategies.

Coping With Occupational Uncertainty in the Context of Lifespan Development
In lifespan developmental psychology, perspectives reminiscent of the coping concept have emerged to describe striving for important developmental goals, such as building a family in young adulthood, and managing age-related losses, such as death of a spouse in late adulthood (Baltes, 1997; Brandstätter & Renner, 1990; Heckhausen & Schulz, 1993). In comparison to the conceptualizations of coping in social and personality psychology, lifespan theories address long-term coping strategies that are relevant for the achievement of developmental goals and consider global or particularly severe stressors that may hamper such goal achievement (i.e., uncertainty at the societal level, incapacitating disease, infertility; e.g., Baltes, 1997; Heckhausen, Wrosch, & Schulz, 2010). In addition, more emphasis is put on age differences in the prevalence and adaptiveness of different coping strategies. For instance, problem-focused coping and goal engagement are believed to be most adaptive in young and middle adulthood, whereas emotion-focused coping and goal disengagement seem to become more adaptive at an older age.

In the present study, we drew on the lifespan theory of control (Heckhausen & Schulz, 1993; Heckhausen et al., 2010) to investigate coping with growing occupational uncertainty. We reasoned that acquiring an occupation or launching and maintaining a successful career are the major work-related developmental goals of young and middle adulthood (Buchmann & Kriesi, 2011; Havighurst, 1972) and that growing uncertainty in the German labour market, which hits younger cohorts harder (Buchholz & Kurz, 2008), interferes with these goals. Hence, coping with occupational uncertainty in this age group may be seen as an instance of developmental regulation. Heckhausen (2010) suggested that with diminishing predictability of occupational trajectories, individuals’ social and personal resources (e.g., educational attainment and preferred control strategies) may become more important for the achievement of work-related goals. Although personality dispositions, such as optimism, represent one
type of such resources, their relation to effective developmental regulation has not been in the focus of the lifespan theory of control and related approaches.

**Conceptualization of Coping in the Lifespan Theory of Control**

Heckhausen and colleagues (Heckhausen & Schulz, 1993; Heckhausen et al., 2010) distinguished between primary and secondary control strategies of developmental regulation (attempts to control one’s environment vs. efforts to regulate one’s motivational mindset and emotional reactions; cf. Rothbaum, Weisz, & Snyder, 1982). Moreover, following Baltes’s (1997) proposition that selective investment in important goals and compensation for losses and failures are inextricable aspects of adaptive development, they introduced the dimension of selectivity versus compensation, which resulted in the following four-fold classification.

Selective primary control represents investment of own time and effort in goal attainment. Selective secondary control refers to self-regulatory efforts to maintain one’s commitment to a chosen goal. Compensatory primary control implies recruitment of external resources when investment of own resources (i.e., selective primary control) turns out to be insufficient. Finally, compensatory secondary control embraces self-regulatory processes deactivating the unattainable goal and protecting one’s self-esteem. Empirically, these control strategies seem to fit with the earlier distinction between approach and avoidance coping (Roth & Cohen, 1986). That is, selective primary, selective secondary, and compensatory primary control often coincide in the goal engagement mode, whereas compensatory secondary control represents goal disengagement (Heckhausen et al., 2010). Also in line with other perspectives on coping, Heckhausen et al. (2010) asserted that different control strategies are not adaptive or maladaptive per se. For instance, engagement strategies are adequate in the presence of goal–opportunity congruence, whereas goal disengagement is adaptive when unattainable goals need to be relinquished.

**Empirical Research on Coping With Occupational Uncertainty**
Studies on coping with occupational uncertainty have used various conceptualizations of this stressor, as well as of coping responses. Some of them addressed the link between coping (Mak & Mueller, 2000; Mantler, Matejicek, Matheson, & Anisman, 2005; Roskies, Louis-Guerin, & Fournier, 1993), control strategies in particular (Körner, Reitzle, & Silbereisen, 2011; Pinquart & Silbereisen, 2008), and mental health, showing that problem-focused and engagement coping were typically most adaptive. Others focused on the predictors of coping. For instance, Tomasik, Silbereisen, and Pinquart (2010) examined sociodemographic factors and subjective perceptions and appraisals of growing occupational uncertainty in Germany as predictors of control strategies used to cope with this stressor. However, this study was cross-sectional, and personality dispositions were not considered. The role of optimism did receive some attention in studies of layoff survivors or recently unemployed individuals (Armstrong-Stassen, 1994, 2006; Wanberg, 1997), which supported the notion that dispositional optimism fosters engagement coping. Nevertheless, the moderators of the link between optimism and coping were not investigated. Probably for this reason, Leana, Feldman, and Tan (1998) found virtually no relationship between dispositional optimism and problem- or emotion-focused coping among laid-off workers.

**The Present Study**

To our knowledge, neither the relationship between dispositional optimism (Carver & Scheier, 2002; Scheier et al., 1986) and control strategies (Heckhausen & Schulz, 1993; Heckhausen et al., 2010), nor the moderators of the link between optimism and coping with occupational uncertainty have been addressed in previous research. Our study, which is part of a large-scale research project on adult development and adjustment in times of social change (Silbereisen et al., 2006), aimed to fill this gap. Participants were German adults aged 16–43 with various sociodemographic backgrounds, surveyed at the end of 2005 (Time 1) and at the beginning of 2007 (Time 2). Among other things, participants reported perceived
growth in occupational uncertainty, such as the difficulty of career planning, over a certain period (Tomasik & Silbereisen, 2009), and the strategies they typically used to cope with this stressor. As control strategies pertain to long-term goals and stressors and are unlikely to vary from day to day, a one-year lag between assessments was chosen.

We were interested in the effect of dispositional optimism at Time 1 on the change in control strategies between Time 1 and Time 2. Such a prospective design was important for establishing the direction of effects. However, we expected to find only conditional effects of optimism, contingent on the changing labour market situation, which is the source of stress and the reason to adjust one’s coping efforts. We looked at regional unemployment rate, perceived growth in occupational uncertainty, and its perceived controllability as potential moderators, all of which referred to the year between the two assessments.¹ On the one hand, a region’s economy and labour market situation impose objective constraints on individual agency, so that in economically depressed regions with higher unemployment rates, the incongruence between work-related goals and available opportunities is greater (Heckhausen et al., 2010). On the other hand, perceived growth in occupational uncertainty, (i.e., the subjective severity of this stressor) and subjective appraisal of its controllability may be decisive in shaping individual coping responses (Lazarus & Folkman, 1984).

Our general expectation was that dispositional optimism, which reportedly fosters flexibility in the choice of coping strategies (Solberg Nes & Segerstrom, 2006), would predict different patterns of change in control strategies under favourable (i.e., low regional unemployment rate, low perceived growth in occupational uncertainty, and high perceived controllability of this stressor) and unfavourable (i.e., the opposite) conditions. That is, in each case, optimism would predict the presumably most adequate responses. For instance, engagement strategies, which operate in concert, are adaptive in the presence of goal–opportunity congruence, but may become less adequate when major obstacles emerge
(Heckhausen et al., 2010). For this reason, we hypothesized that dispositional optimism would predict an increase in engagement strategies under favourable and a decrease thereof under unfavourable conditions. With regard to disengagement strategies (compensatory secondary control), this may only be adaptive when goal attainment is impossible or becomes too costly (Heckhausen et al., 2010). Thus, we hypothesized that dispositional optimism would predict a decrease in goal disengagement under favourable and an increase thereof under unfavourable conditions. Finally, for all control strategies, we expected that perceived growth and perceived controllability of occupational uncertainty, being more proximal predictors of coping (Lazarus & Folkman, 1984), would moderate the effects of dispositional optimism more strongly than regional unemployment rate.

Method

Participants and Procedure

We used longitudinal data from the Jena Study on Social Change and Human Development (Silbereisen et al., 2006). Initial data collection took place in October 2005 to January 2006 in four federal states of Germany, two from the East and two from the West. Sampling points were selected at random from the stratified area sample provided by the Association of German Market and Social Research Institutes (ADM). Within each sampling point, participants aged 16–43 were drawn with a random route technique, and approximately 3000 interviews were conducted (response rate 77%). Overall, the sample was fairly representative of the same-age population of the respective federal states, although unemployed individuals were somewhat overrepresented, and singles and foreigners underrepresented (Reitzle, 2008). Six hundred and six individuals participated in the first follow-up, which was conducted in January–March 2007. At both data collections, standardized face-to-face interviews lasting about an hour were carried out in German by the trained personnel of a field research agency. Descriptive statistics for the original and
follow-up samples are given in Table 1. It shows that, despite some deviations in sociodemographic characteristics, the samples differed neither in mean values nor in standard deviations on the variables of interest in the present study.

Table 1 about here

**Measures**

**Dispositional optimism.** At Time 1, a German version of the Life Orientation Test (LOT; Wieland-Eckelmann & Carver, 1990) was administered along with filler items from other instruments. The mean score of its eight items was used (e.g., “In uncertain times, I usually expect the best”; 1 = does not apply at all, 7 = fully applies; $\alpha = .72$).

**Moderator variables.** Regional unemployment rate (average figures for 2006, i.e., the year between Time 1 and Time 2) was calculated as the percentage of the registered unemployed actively seeking a job in the total labour force (Bundesagentur für Arbeit, 2006). This unemployment rate varied across 100 districts and cities of the four federal states covered in our survey, 82 of which were represented in the follow-up sample. Perceived growth in occupational uncertainty between Time 1 and Time 2 was assessed at Time 2 with a six-item retrospective scale (e.g., “When considering the past 12 months, it has become more difficult to plan my career path”; 1 = does not apply at all, 7 = fully applies; $\alpha = .86$; $M [SD] = 4.1 [1.7]$). Items administered to the employed, the unemployed, and students slightly differed (e.g., “The risk of losing my job // not finding a new job // not being able to complete my education has increased”). The validity of this indicator was supported by evidence that individuals from economically disadvantaged regions, as well as those with lower educational attainment and non-working persons, scored higher on this scale (Silbereisen & Tomasik, 2011; Tomasik & Silbereisen, 2009). Perceived controllability of growing occupational uncertainty was measured at Time 2 with a single item: “What would you say is the reason
for how well you deal with the changes in the area of work or training and education? To what extent is it determined by yourself?” (1 = not at all, 7 = completely; $M\ [SD] = 4.8 [1.8]$).

**Control strategies.** The present scales were adapted from other research based on the lifespan theory of control (Heckhausen & Schulz, 1993; Heckhausen et al., 2010). Their validity was supported by previous studies showing that engagement and disengagement strategies correlated with the appraisals of a stressor in the expected directions (Tomasik, Silbereisen, & Pinquart, 2010) and that engagement strategies were generally related to higher subjective well-being, but under disadvantaged conditions, disengagement also yielded positive associations with well-being (Körner et al., 2011; Pinquart & Silbereisen, 2008; Tomasik, Silbereisen, & Heckhausen, 2010; Tomasik & Silbereisen, in press).

Both at Time 1 and at Time 2, immediately after the occupational uncertainty items had been administered, participants received the following instructions: “People handle such changes in very different ways. With the help of the following list please keep your present situation in mind and consider what you do in order to deal with it”. For the present study, we used two scales representing goal engagement strategies, each measured with three items: selective primary control (e.g., “I am also prepared to make a great effort in order to find a good solution”; $\alpha_{T1} = .78$, $\alpha_{T2} = .74$) and compensatory primary control (e.g., “If I am not making any progress then I ask other people for ways and means of finding a solution”; $\alpha_{T1} = .82$, $\alpha_{T2} = .87$). Compensatory secondary control (disengagement) was likewise assessed with two scales, each comprising three items: self-protection (e.g., “If I can’t handle these changes then I search for grounds not to have to give myself the blame”; $\alpha_{T1} = .74$, $\alpha_{T2} = .76$) and distancing (e.g., “If I can’t find a solution then I put the problem to the back of my mind”; $\alpha_{T1} = .81$, $\alpha_{T2} = .81$). All items had a seven-point rating scale (1 = does not apply at all, 7 = fully applies). There was no substantial mean change from Time 1 to Time 2.
Confirmatory factor analysis showed that a measurement model with four latent variables fitted the data well: $\chi^2(220, N = 606) = 290.77, p < .01; \text{CFI} = .988; \text{RMSEA} = .023; \text{SRMR} = .031$. Almost all standardized factor loadings were above .70; the lowest value was .61. The correlations among the latent variables ranged from -.45 to .74 (see Table 2) and were in the expected directions.

**Analytical Strategy**

We conducted a series of hierarchical regression analyses for each control strategy at Time 2 as the dependent variable (see Tables 3 and 4). To test our hypotheses, we estimated the interaction effects between optimism at Time 1 and each of the moderator variables separately. All variables included in the interaction effects were continuous and mean-centred. We probed significant interactions by plotting the simple slopes of optimism at high (e.g., $M + 1SD$) and low (e.g., $M - 1SD$) levels of the moderating variables and testing them for significance (Cohen, Cohen, West, & Aiken, 2003). Analyses were conducted using Mplus v.6 (Muthén & Muthén, 2010), wherein missing values on dependent variables and covariates were handled with the FIML algorithm. To take into account nonindependence of observations within regional units wherein several individual observations were assigned the same value on regional unemployment rate, we used a sandwich-type estimator to compute standard errors (Asparouhov, 2005). As this approach reduced the power of analyses, we chose the conventional alpha level of $p < .05$.

**Results**

Bivariate correlations among the study variables are given in Table 2. At Time 1, engagement strategies (selective primary and compensatory primary control) were strongly positively intercorrelated and negatively related to disengagement strategies (compensatory secondary control: self-protection and distancing), which were positively intercorrelated as well. Both dispositional optimism at Time 1 and regional unemployment rate were
associated with higher scores on engagement strategies and with lower scores on disengagement strategies. As might have been expected, optimism was related to lower perceived growth in occupational uncertainty and to higher perceived controllability of this stressor. Correlations among the moderator variables were also in line with expectations: Regional unemployment rate was positively correlated with perceived growth in occupational uncertainty, which, in turn, was negatively correlated with perceived controllability of this stressor. Perceived growth in occupational uncertainty between Time 1 and Time 2 and its perceived controllability were not significantly associated with control strategies at Time 1. Nevertheless, this did not rule out the possibility that these predictors contributed to the change in control strategies from Time 1 to Time 2.

[Table 2 about here]

Regression results for engagement strategies are presented in Table 3. Concerning selective primary control, its scores at Time 1 entered at the first step accounted for 25.8% of variance at Time 2, whereas dispositional optimism entered at the second step did not have a significant main effect. As we expected to find only conditional effects of optimism, this did not contradict our hypotheses so far. Furthermore, the first moderator, regional unemployment rate, had a significant positive main effect, accounting for additional 1.4% of variance. That is, regional unemployment rate between Time 1 and Time 2 predicted an increase in selective primary control. However, the interaction between optimism and regional unemployment rate entered at the fourth step was not significant, which was against our expectation that the effect of optimism on engagement strategies would vary as a function of regional unemployment rate.

Nevertheless, the interactions between optimism and the two other hypothesized moderators, perceived growth in occupational uncertainty and its perceived controllability, were significant for selective primary control, accounting for additional 1.6% and 1.4% of
variance, respectively. These interaction effects are illustrated by Figure 1. As can be seen, baseline optimism predicted higher selective primary control at Time 2 under low (i.e., $M - 1SD$) perceived growth in occupational uncertainty, $B (SE) = .196 (.071), p < .01$, whereas under high (i.e., $M + 1SD$) perceived growth in occupational uncertainty, baseline optimism seemingly had the opposite effect (see Figure 1a), which was not significant, $B (SE) = -.053 (.088), ns$. This negative slope of optimism did not become significant even at the observed maximum of perceived growth in occupational uncertainty, $B (SE) = -.136 (.110), ns$.

Likewise, baseline optimism predicted higher selective primary control at Time 2 under high perceived controllability of occupational uncertainty and lower selective primary control under low perceived controllability of occupational uncertainty (see Figure 1b). Again, these effects were asymmetric: The positive slope of optimism was marginally significant at $M + 1SD$ of perceived controllability, $B (SE) = .160 (.086), p < .10$, and significant at its observed maximum, $B (SE) = .193 (.095), p < .05$, whereas the negative slope of optimism was not significant even at the observed minimum of perceived controllability, $B (SE) = -.203 (.134), ns$. In addition, perceived controllability of occupational uncertainty had a significant main effect on selective primary control at Time 2 (see Table 3), which implied that, on average, perceived controllability elicited an increase in this strategy.

These findings supported our expectation that under favourable labour market conditions optimism would predict an increase in engagement strategies. However, the complementary hypothesis that under unfavourable labour market conditions optimism would predict a decrease in engagement was supported only partly, as a trend. Regarding our expectation that subjective perceptions of the labour market situation would moderate the effects of optimism more strongly than regional unemployment rate, this was corroborated as the interaction between optimism and regional unemployment rate was not significant.

[Table 3 about here]
A somewhat different pattern of results emerged for compensatory primary control. Again, its Time 1 scores accounted for the largest portion of variance at Time 2, whereas optimism had no significant main effect (see Table 3). The main effect of regional unemployment rate was significant, explaining additional 1.4% of variance. That is, on average, higher regional unemployment rate predicted an increase in compensatory primary control from Time 1 to Time 2. Furthermore, a significant interaction between optimism and regional unemployment rate emerged, which accounted for 1.9% more variance. As Figure 1c shows, baseline optimism predicted higher compensatory primary control at Time 2 in regions with relatively low (\(M - 1SD\)) unemployment rates, \(B(\text{SE}) = .254 (.080), p < .01\), whereas it predicted lower compensatory primary control in regions with relatively high unemployment rates. Although the latter effect was not significant at \(M + 1SD\) of regional unemployment, \(B(\text{SE}) = -.075 (.083), ns\), it became significant at its maximum observed value, \(B(\text{SE}) = -.262 (.132), p < .05\). Nevertheless, the asymmetry of the positive and negative slopes of optimism was again apparent.

The other hypothesized moderating effects were not found for compensatory primary control as the interactions between optimism and perceived growth in occupational uncertainty, as well as its perceived controllability, were not significant (see Table 3). Hence, the effect of dispositional optimism on the change in compensatory primary control varied as a function of objective, rather than perceived, labour market situation, which supported our hypotheses only partly. Concerning the main effects of the moderators, perceived controllability, but not perceived growth in occupational uncertainty, had a significant positive effect on compensatory primary control at Time 2 (see Table 3).

Regression results for disengagement (compensatory secondary control) strategies are presented in Table 4. It shows that, apart from their scores at Time 1, our set of predictors
yielded no significant effects on disengagement at Time 2. In particular, baseline optimism, alone or in interaction with other variables, had no effect on the two disengagement strategies, which was contrary to our expectations. We conducted post-hoc analyses to establish whether optimism might predict an increase in disengagement strategies when both objective and perceived labour market situation was unfavourable. This possibility was suggested by previous findings from our research group showing that, under such doubly disadvantaged conditions, disengagement strategies seemed to be especially adaptive as they were associated with higher subjective well-being (Tomasik, Silbereisen, & Heckhausen, 2010; Tomasik & Silbereisen, in press). Specifically, we tested three-way interactions between optimism at Time 1, regional unemployment rate, and perceived growth in occupational uncertainty (or its perceived controllability). None of these three-way interactions was significant for any of the two disengagement strategies.

[Table 4 about here]

Discussion

In the present study employing a prospective design, we investigated the role of dispositional optimism (Carver & Scheier, 2002) in coping with growing uncertainty on the German labour market, prompted by economic challenges of the last decades and subsequent reform endeavours (Jacobi & Kluve, 2007; Tomasik & Silbereisen, 2009). As younger cohorts seem to suffer most from these new developments (Buchholz & Kurz, 2008), we focused on coping with growing occupational uncertainty in young and middle adulthood. Having adopted the lifespan theory of control to assess coping (Heckhausen & Schulz, 1993), we expected that dispositional optimism would be related to different patterns of change in control strategies under favourable and unfavourable conditions (cf. Solberg Nes & Segerstrom, 2006), defined by both objective (i.e., regional unemployment rate) and subjective (i.e., perceived growth in occupational uncertainty and perceived controllability of
this stressor) indicators. Moreover, we hypothesized that the subjective variables would be relatively more important in moderating the effects of optimism than regional unemployment rate, a more distal predictor of coping (cf. Lazarus & Folkman, 1984).

**Dispositional Optimism and Goal Engagement**

We found that, over a period of one year, baseline optimism predicted an increase in engagement strategies (i.e., selective primary and compensatory primary control) under favourable conditions (see Figure 1). This was in line with prior evidence on dispositional optimism being related to problem-focused engagement when a stressor is perceived as controllable (Solberg Nes & Segerstrom, 2006). However, under unfavourable labour market conditions, baseline optimism was mostly not significantly associated with a decrease in engagement strategies, although a corresponding trend could be observed. In other words, optimists more readily increased their engagement under opportune circumstances than decreased it in the opposite situation, which confirms the view that a particular affinity exists between dispositional optimism and engagement coping (Carver & Connor-Smith, 2010; Solberg Nes & Segerstrom, 2006).

Specific conditions moderating the effects of optimism differed somewhat between the two engagement strategies. Regarding selective primary control (persistent investment of own time and effort in goal attainment), the results closely mirrored our predictions, with both perceived growth in occupational uncertainty and its perceived controllability, but not regional unemployment rate, moderating the effects of optimism (see Figure 1, a–b). In contrast, the effect of optimism on compensatory primary control was strongly moderated by regional unemployment rate (see Figure 1c), which was not accounted for by the subjective perception and appraisal of growing occupational uncertainty. A possible explanation of this finding may be that here, regional unemployment rate represented not only the labour market situation but also something else, for instance, a lack of social capital. Indeed, exploiting
one’s “weak ties” is most effective where social capital is high (Coleman, 1988), and social capital is unequally distributed across regions. In thriving regions with low unemployment rates, there is more social capital to draw on (e.g., successful role models, influential contacts outside one’s family), and optimists may be more prepared than pessimists to use all available opportunities, including external help.

**Occupational Uncertainty and Goal Engagement**

Apart from the effects of dispositional optimism discussed above, both unfavourable labour market situation (i.e., regional unemployment rate), which is hardly possible for the individual to control, and perceived high controllability of growing occupational uncertainty were associated with an increase in engagement strategies over one year. This apparent inconsistency may be explained by unfavourable labour market conditions posing a threat to major work-related developmental goals, which cannot be abandoned easily by young and middle-aged individuals, whereby engagement coping is elicited in the first place (cf. Heckhausen et al., 2010; Tomasik, Silbereisen, & Pinquart, 2010). Indeed, residents of disadvantaged regions—especially against the backdrop of shrinking unemployment protection in Germany (Jacobi & Kluve, 2007)—have little choice but to put more and more effort into surviving in the labour market, which illustrates the importance of objective circumstances in determining coping responses (Hobfoll, 2001). With regard to perceived controllability of a stressor, it is known to be a major prerequisite of problem-focused engagement coping (Lazarus & Folkman, 1984), therefore its positive associations with engagement control strategies are not surprising.

**Dispositional Optimism and Goal Disengagement**

Evidence from prior studies suggests that disengagement is adaptive under disadvantaged and uncontrollable circumstances, buffering their negative impact on subjective well-being (Heckhausen et al., 2010; Tomasik, Silbereisen, & Heckhausen, 2010;
Tomasik & Silbereisen, in press). In the present study, however, we found no longitudinal relationship between dispositional optimism and disengagement (i.e., self-protection and emotional distancing from unattainable goals), even under conditions of high regional unemployment rate, or high perceived growth in occupational uncertainty, or both. It appears that the personality dimension (or self-regulation capacity) of optimism, represented by very general and stable future expectancies, is irrelevant for disengagement, a temporary strategy activated when an important developmental goal is blocked, which is usually superseded by a new cycle of goal engagement (Heckhausen et al., 2010; cf. Rasmussen, Wrosch, Scheier, and Carver, 2006). In fact, dispositional optimism may be more decisive for subsequent goal reengagement, which has more to do with future orientation.

**Limitations and Future Directions**

The major limitation of the present study was our reliance on retrospective self-report measures. Whereas it is conventional to assess personality dispositions, such as optimism, with global self-report scales, coping responses, which are by definition more changeable, seem to be poorly captured by such instruments (Carver & Connor-Smith, 2010; Todd, Tennen, Carney, Armeli, & Affleck, 2004). However, the idea of developmental regulation (Heckhausen & Schulz, 1993; Heckhausen et al., 2010) and the nature of the stressor we considered (i.e., growing occupational uncertainty) correspond to long-term strategies rather than to spontaneous reactions varying from day to day. In this regard, our measure partly captured general coping dispositions, but we tried to counterbalance this limitation by using a prospective design as the change in coping can hardly be attributed to dispositional factors. Concerning our assessment of the stressor and its appraisal, self-report measures are adequate here as they reflect the role of subjective construal in the emergence of stress (Lazarus & Folkman, 1984).
Furthermore, measurement error can reduce statistical power to detect interaction effects. For instance, perceived controllability of growing occupational uncertainty was assessed with a single item, and a lack of power might lead to the main effects of controllability, but not its moderating effects, being significant in some analyses. The same issue might also pertain to the other moderators. Whereas we were able to adjust for measurement error in the outcomes (i.e., control strategies) using a latent variable approach, testing the interactions among latent variables was not feasible with our sample size as the number of parameters in the model would have increased considerably. Another issue with our statistical analyses was that the effects of dispositional optimism and its interactions were limited in size, accounting for only about 2% of variance in control strategies at Time 2. The major reason for this was that we predicted residual change in control strategies, controlling for their scores at Time 1, thereby restricting the variance to be explained at Time 2. Besides, a more intuitive representation of effect sizes would suggest that the effects we found were not trivial. For instance, under favourable labour market conditions, the difference between the observed minimum and maximum scores on dispositional optimism at Time 1 corresponded to the difference of about one standard deviation in the Time 2 scores on engagement strategies (see Figure 1).

With regard to our sample, it had an advantage over widely used student samples in that it comprised young and middle-aged adults with various sociodemographic backgrounds and different employment status. However, given the high dropout rate and the selective nature of the follow-up sample, our findings should only be generalized to other groups with caution, although the correspondence between the original and the follow-up samples in terms of major sociodemographic indicators and the study variables was highly satisfactory.

Inevitably, our study left some important questions unanswered. For instance, we found that under unfavourable conditions, individuals high in optimism tended to reduce their
use of engagement strategies, but they did not show an increase in disengagement. Future research needs to clarify which coping strategies (within or beyond the framework of the lifespan theory of control) optimists do prefer under high occupational uncertainty, and what implications for their adjustment may ensue. Moreover, we obtained certain differences across the control strategies, to which we offered tentative explanations. Testing some of them, such as optimists profiting from higher social capital in thriving regions, may become the task of future research. Finally, in the lifespan theory of control and related models (Heckhausen & Schulz, 1993; Heckhausen et al., 2010), different control strategies refer to different phases in the process of goal striving, which we did not consider in the present study. Future studies may use a more dynamic approach to investigate the role of optimism in switching from one action phase to another while coping with occupational uncertainty.

Conclusions

Despite some limitations, we showed that dispositional optimism had prospective effects on control strategies used to cope with growing uncertainty on the German labour market. That is, dispositional optimism predicted an increase in goal engagement under favourable labour market conditions, whereas the opposite trend was observed under unfavourable conditions, which supports the idea that optimists prefer the most adaptive coping responses in each case (cf. Solberg Nes & Segerstrom, 2006).
References


Todd, M., Tennen, H., Carney, M. A., Armeli, S., & Affleck, G. (2004). Do we know how we cope? Relating daily coping reports to global and time-limited retrospective


Footnotes

1 It may be argued that changing labour market conditions elicit coping responses and should therefore be regarded as a predictor, whose effects on coping are moderated by dispositional optimism. However, regional unemployment rate cannot directly influence coping responses (although perceived growth in occupational uncertainty presumably can), which are produced by the actor, not by the external situation, and for the sake of consistency we considered dispositional optimism, part of the actor’s personality, as the main predictor in all analyses.

2 Only 45.3% of the participants at the first data collection gave their consent to take part in further assessments; still, all of them could not be surveyed repeatedly due to financial constraints of the project. Therefore, participants representing extreme constellations (i.e., high–high, high–low, low–high, and low–low) of psychosocial demands (e.g., perceived growth in occupational uncertainty) and resources (e.g., optimism, self-mastery, perceived social support) were contacted on a first-priority basis. When all of them had been contacted, the remaining participants were approached at random until the target sample size for the follow-up was achieved. This procedure was meant to preserve variability on the psychological variables of interest and to trace longitudinal dynamics of the theoretically most interesting groups of participants. However, it might have decreased the representativity of the follow-up sample, which we acknowledge as a limitation.

3 For this study, we excluded the scale of selective secondary control as it had low reliability ($\alpha_{T1} = .58, \alpha_{T2} = .62$) and did not load on a separate factor in the measurement model.
Table 1

Attrition Analysis on the Basis of Sociodemographic Indicators and the Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Original sample</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>2863</td>
<td>606</td>
</tr>
<tr>
<td>Region: Mecklenburg-Vorpommern, %</td>
<td>24.4</td>
<td>22.3</td>
</tr>
<tr>
<td>Thuringia, %</td>
<td>24.8</td>
<td>32.2</td>
</tr>
<tr>
<td>Baden-Württemberg, %</td>
<td>26.2</td>
<td>29.5</td>
</tr>
<tr>
<td>Schleswig-Holstein, %</td>
<td>24.6</td>
<td>16.0</td>
</tr>
<tr>
<td>Regional unemployment rate, $M \ (SD)$</td>
<td>13.1 (5.5)</td>
<td>13.1 (5.6)</td>
</tr>
<tr>
<td>German nationality, %</td>
<td>95.1</td>
<td>94.9</td>
</tr>
<tr>
<td>Age in years, $M \ (SD)$</td>
<td>31.3 (8.7)</td>
<td>32.4 (8.3)</td>
</tr>
<tr>
<td>Females, %</td>
<td>54.1</td>
<td>59.6</td>
</tr>
<tr>
<td>Highest school track (Gymnasium), %</td>
<td>24.6</td>
<td>26.4</td>
</tr>
<tr>
<td>Employed, %</td>
<td>51.5</td>
<td>52.0</td>
</tr>
<tr>
<td>Married, %</td>
<td>37.9</td>
<td>42.8</td>
</tr>
<tr>
<td>Dispositional optimism, $M \ (SD)$</td>
<td>4.9 (0.9)</td>
<td>5.0 (0.9)</td>
</tr>
<tr>
<td>Selective primary control, $M \ (SD)$</td>
<td>5.5 (1.1)</td>
<td>5.5 (1.1)</td>
</tr>
<tr>
<td>Compensatory primary control, $M \ (SD)$</td>
<td>5.5 (1.1)</td>
<td>5.6 (1.1)</td>
</tr>
<tr>
<td>Compensatory secondary control: self-protection, $M \ (SD)$</td>
<td>3.3 (1.4)</td>
<td>3.3 (1.3)</td>
</tr>
<tr>
<td>Compensatory secondary control: distancing, $M \ (SD)$</td>
<td>3.0 (1.5)</td>
<td>2.8 (1.4)</td>
</tr>
</tbody>
</table>

*Note.* All statistics refer to measures at Time 1 except for the regional unemployment rate, which refers to the year between the assessments (2006). Time 1 measures of perceived growth in occupational uncertainty and its controllability were not available or not used in the present study. Mean raw scores on control strategies are shown.
Table 2

*Bivariate Correlations Among the Predictors and Time 1 Scores on the Dependent Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Optimism T1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Regional unemployment rate T1–T2</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived growth in occupational uncertainty T1–T2</td>
<td>-.28</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perceived controllability of occupational uncertainty T1–T2</td>
<td>.19</td>
<td>.02</td>
<td>-.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Selective primary control T1</td>
<td>.44</td>
<td>.23</td>
<td>-.01</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Compensatory primary control T1</td>
<td>.32</td>
<td>.28</td>
<td>-.01</td>
<td>.03</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Compensatory secondary control: Self-protection T1</td>
<td>-.32</td>
<td>-.14</td>
<td>.05</td>
<td>-.05</td>
<td>-.26</td>
<td>-.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Compensatory secondary control: Distancing T1</td>
<td>-.21</td>
<td>-.15</td>
<td>.06</td>
<td>-.01</td>
<td>-.45</td>
<td>-.37</td>
<td>.60</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *N* = 606. Latent scores on control strategies were used. T1–T2: assessment referred to the period between Time 1 and Time 2 (i.e., no difference scores). Coefficients significant at *p* < .01 are in **bold**.
Table 3
Regression Results for Engagement (Primary Control) Strategies

<table>
<thead>
<tr>
<th>Step</th>
<th>Selective primary control</th>
<th>Compensatory primary control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>∆R²</td>
</tr>
<tr>
<td>1. T1 score</td>
<td>.463*** (.052)</td>
<td>.258</td>
</tr>
<tr>
<td>2. Optimism T1</td>
<td>.055 (.073)</td>
<td>.004</td>
</tr>
<tr>
<td>3. Regional unemployment rate T1–T2</td>
<td>.019* (.009)</td>
<td>.014</td>
</tr>
<tr>
<td>4. Optimism x Regional unemployment rate</td>
<td>-.016 (.009)</td>
<td>.007</td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td>.283</td>
</tr>
<tr>
<td>3. Perceived growth in occupational uncertainty T1–T2</td>
<td>.002 (.026)</td>
<td>.000</td>
</tr>
<tr>
<td>4. Optimism x Perceived growth in occupational uncertainty</td>
<td>-.071** (.025)</td>
<td>.016</td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td>.278</td>
</tr>
<tr>
<td>3. Perceived controllability of occupational uncertainty T1–T2</td>
<td>.048* (.020)</td>
<td>.009</td>
</tr>
<tr>
<td>4. Optimism x Perceived controllability</td>
<td>.066* (.030)</td>
<td>.014</td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td>.285</td>
</tr>
</tbody>
</table>

Note. N = 606. Latent scores on dependent variables were used. Steps 3 and 4 were repeated for each moderating variable separately. T1–T2: assessment referred to the period between Time 1 and Time 2 (i.e., no difference scores).

* p < .05. ** p < .01. *** p < .001.
### Table 4

**Regression Results for Disengagement (Compensatory Secondary Control) Strategies**

<table>
<thead>
<tr>
<th>Step</th>
<th>Self-protection</th>
<th>Distancing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$ ($SE$)</td>
<td>$\Delta R^2$</td>
</tr>
<tr>
<td>1. T1 score</td>
<td>0.470*** (0.073)</td>
<td>0.206</td>
</tr>
<tr>
<td>2. Optimism T1</td>
<td>-0.100 (0.071)</td>
<td>0.004</td>
</tr>
<tr>
<td>3. Regional unemployment rate T1–T2</td>
<td>-0.004 (0.019)</td>
<td>0.000</td>
</tr>
<tr>
<td>4. Optimism x Regional unemployment rate</td>
<td>-0.006 (0.015)</td>
<td>0.000</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td></td>
<td>0.210</td>
</tr>
<tr>
<td>3. Perceived growth in occupational uncertainty T1–T2</td>
<td>0.059 (0.036)</td>
<td>0.006</td>
</tr>
<tr>
<td>4. Optimism x Perceived growth in occupational uncertainty</td>
<td>-0.008 (0.041)</td>
<td>0.000</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td></td>
<td>0.216</td>
</tr>
<tr>
<td>3. Perceived controllability of occupational uncertainty T1–T2</td>
<td>-0.011 (0.034)</td>
<td>0.000</td>
</tr>
<tr>
<td>4. Optimism x Perceived controllability</td>
<td>-0.047 (0.037)</td>
<td>0.003</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td></td>
<td>0.213</td>
</tr>
</tbody>
</table>

**Note.** $N = 606$. Latent scores on dependent variables were used. Steps 3 and 4 were repeated for each moderating variable separately. T1–T2: assessment referred to the period between Time 1 and Time 2 (i.e., no difference scores).

*** $p < .001$. 

**p < .001.**
Figure Captions

Figure 1. Time 2 latent scores on engagement control strategies, controlled for Time 1 scores, predicted by baseline optimism and the three moderator variables: (a) perceived growth in occupational uncertainty; (b) perceived controllability of growing occupational uncertainty; (c) regional unemployment rate. High/low levels of the moderator variables are defined as $M \pm 1SD$. The range of observed values on optimism is shown: Min = 2.25, Max = 7. † $p < .10$. ** $p < .01$. 