Effects of occupational future time perspective on managing stressful work situations

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According to the socioemotional selectivity theory (SST; Carstensen, 2006), older adults perceive their future time as increasingly limited, which motivates them to focus more on emotional goals and prefer passive emotion-focused strategies. This study aims to investigate the effect of occupational future time perspective (OFTP) on the use of problem-solving strategies in stressful work situations and to examine the effectiveness of these strategies on psychological well-being. A sample of 199 Chinese clerical workers responded to a structured questionnaire on problem-solving strategy use in relation to hypothetical work scenarios. Results revealed that relative to those with limited OFTP, workers with expansive OFTP preferred problem-focused and proactive strategies in both low- and high-emotionally salient scenarios. Workers with limited OFTP consistently preferred passive strategies irrespective of emotional salience. OFTP moderated the effect of problem-focused strategies on psychological distress. In particular, there was a significant negative relationship between problem-focused strategies and psychological distress among workers with expansive OFTP, but such pattern of relationship was not observed among workers with limited OFTP. Findings of this study inform the training strategies employed by practitioners to fit the developmental goals of workers in order to maximise their strengths at work.

Keywords: Problem-solving strategies; Occupational future time perspective; Older workers; Job stress; Psychological distress.

Problem-solving, the ability to deal with problem situations in order to achieve individual goals and alleviate negative emotional states (Blanchard-Fields, 2007), is essential for effective functioning in the ever-changing work environment among working adults. Without adequate problem-solving skills, employees may experience work stress from countless challenging forces that are encountered during work (Baker & Williams, 2001). There is empirical evidence for the contribution of work stress to psychosomatic disorders, psychological distress, reduced motivation and various work-related behaviours that are costly to employers, such as absenteeism, reduction in productivity and turnover intentions (Sonnen-tag & Frese, 2003).

Previous research suggests that work stress is a result of discrepancy between work demands and the individual’s coping abilities. When the demands of a work problem exceed the coping resources one possesses, one will experience a high level of work stress (Lazarus, 1990). With a global increase in the population of older workers aged 45 and above, including the United States (U.S. Bureau of Labor Statistics, 2011) and Hong Kong (Census and Statistics Department, 2011), there is the growing need to understand whether there are age variations in problem-solving when meeting work demands. In particular, ageing is associated with declines in physical and cognitive abilities, which may constrain older employees’ abilities to effectively deal with work problems, inducing further stress and anxiety. However, prior research suggests that older workers are able to effectively cope with everyday work tasks, maintain a satisfactory level of job performance, and achieve emotional well-being through using adaptive strategies that are consistent with their developmental goals (Bal & Smit, 2012; Yeung & Fung, 2012). A study that examined the impact of age on coping strategies and burnout revealed that older workers

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who used emotion control strategies during highly stressful situations experienced less emotional exhaustion and cynicism compared to their younger counterparts (Johnson, Holdsworth, Hoel, & Zapf, 2013). These findings suggest that the effectiveness of problem-solving and coping strategies may vary by age.

A possible explanation for these findings exists within the framework of SST (Carstensen, 2006), which stresses that one’s perception of future time influences their goal orientation and behaviours. Future time perspective (FTP) becomes increasingly limited as people age. Specifically, younger adults usually perceive an expansive FTP, thus emphasise on goals related to knowledge acquisition, career advancement and development of social relationships. Older adults usually perceive a limited future time, which causes them to focus more on emotional goals and positive affect. According to SST, when confronted with problems, individuals who perceive an expansive FTP are more likely to use problem-focused strategies to remove the problem once and for all, while those who perceive a limited FTP tend to use passive emotion-focused strategies to maximise their emotional experiences. There is evidence to support the mediating role of FTP in the relationship between age and problem-solving strategies (Yeung, Fung, & Kam, 2012), implying that it is one’s perception of future time, instead of age per se, that influences his/her selection of strategies to solve everyday problems. This study aims to replicate Yeung and colleagues’ (2012) study by testing whether workers with varying degrees of time perception remaining in their working life, known as occupational future time perspective (OFTP; Zacher & Frese, 2009), would differ in the use of problem-solving strategies across high- and low-emotionally salient work scenarios. To the best of our knowledge, there has not been any research conducted to evaluate differences in effectiveness of problem-solving strategies among workers with varying degrees of OFTP. Therefore, this study also aims to fill this gap by examining the moderating role of OFTP in the effectiveness of problem-solving in relation to job stress and psychological health.

OFTP and emotional salience of work situations

Blanchard-Fields, Stein, and Watson, (2004) distinguished three types of problem-solving strategies, namely problem-focused (PROBLEM), passive (PASSIVE) and proactive (PROACTIVE) emotion-focused strategies. PROBLEM encourages actions with the objective to remove the problem directly. PASSIVE involves avoiding the problem, such as denial and escape, while PROACTIVE involves actively approaching the problem, such as the pursuit of social support. These three types of strategies were theoretically derived from models of coping and problem-solving and have been empirically validated with good inter-rater reliability (Blanchard-Fields et al., 2004) and high internal consistency (Yeung et al., 2012). Research on problem-solving strategies has focused on everyday problems, including both interpersonal and instrumental contexts (Blanchard-Fields, Jahnke, & Camp, 1995; Blanchard-Fields, Chen, & Norris, 1997). In support of the postulations of SST, past research demonstrates that older adults prefer PASSIVE while younger adults prefer PROBLEM and PROACTIVE when dealing with interpersonal problems (Blanchard-Fields et al., 2004; Blanchard-Fields, Mienaltowski, & Seay, 2007; Yeung et al., 2012).

FTP has been conceptualised as one’s perception of time left in life, which consists of cognitive-motivational and temporal properties (Carstensen, 2006). When applied to the work context, FTP can be reconceptualised as the perception of future time in one’s working life, which is labelled as OFTP (Zacher & Frese, 2009). Consistent with the conceptualisation of Carstensen (2006), this study conceives OFTP as a one-dimensional temporal construct. Compared with younger workers who are still in the early stage of their careers, older workers perceive themselves as having fewer available future goals, career plans and growth options at work. Past research on OFTP has demonstrated that the perception of limited opportunities and remaining time at work is negatively associated with age, physical health and mental health (Zacher & Frese, 2009). With reference to prior research on age and problem-solving, it is expected that workers with limited OFTP would use more PASSIVE while workers with open-ended OFTP would use more PROBLEM and PROACTIVE.

In addition to the effect of OFTP, preferences for problem-solving strategies may also vary across situations. When dealing with high-emotionally salient situations such as quarrels with a spouse, age differences exist, with older adults using more PASSIVE than do younger adults (Hoppmann & Blanchard-Fields, 2011). In contrast, when dealing with low-emotionally salient situations such as returning a product to a store, few age differences were found, with both age groups using more PROBLEM. In light of these findings, it is hypothesised that the effect of OFTP on problem-solving strategies would be moderated by the emotional salience of work scenarios (H1). Specifically, compared with workers with expansive OFTP, workers with limited OFTP would use more PASSIVE and fewer PROBLEM and PROACTIVE in the face of high-emotionally salient scenarios, whereas the effect of OFTP on problem-solving strategies would not be shown in low-emotionally salient scenarios.

Effectiveness of problem-solving strategies

In the stress and coping literature, PROBLEM has frequently been perceived as more effective than
emotion-focused strategies when coping with daily stressors (Chan & Hui, 1995). The use of emotion-focused strategies is associated with a number of negative work-related outcomes, such as psychosomatic symptoms, distress and burnout (Hasida & Keren, 2007). By integrating the findings from ageing and stress and coping literatures, one would expect that compared with younger workers, older workers are less effective in managing stressful situations and have poorer work-related outcomes because they have a greater preference for PASSIVE. However, past studies showed that older workers perform as well as their younger counterparts or even exhibit better emotional well-being (Bal & Smit, 2012; Yeung & Fung, 2012). These findings imply that the use of emotion-focused strategies may be effective to older workers for managing stressful work situations.

Lazarus (2000) stressed that it is the appropriate use of strategies rather than the specific coping responses that best predicts adaptation to stressful encounters. Indeed, when taking individual differences (e.g. OFTP) and situational factors (e.g. emotional salience) into account, research on ageing provided contrasting evidence to those found in the literature on stress and coping. For example, when assessing the effectiveness of strategy choice, older adults were more effective than younger adults in matching the appropriate strategy with their personal goals and problem context (Blanchard-Fields et al., 2007; Hoppman, Coats, & Blanchard-Fields, 2008). Furthermore, older adults experienced fewer negative emotions and interpersonal tensions by using various forms of PASSIVE such as emotional suppression (Yeung & Fung, 2012), passive constructive strategies (Birditt, Fingerman, & Almedia, 2005) and shifting attention away from negative information (Charles & Carstensen, 2008). These findings suggest that the use of PASSIVE may be beneficial to the psychological well-being of older adults.

In light of contradictory findings reviewed above, this study aims to investigate the effectiveness of problem-solving strategies among workers with expansive and limited OFTP when handling stressful work problems. In particular, job stress and psychological distress were examined as work-related well-being outcomes. Because past research suggests that work stressors are negatively associated with occupational health (Sonnentag & Frese, 2003), the effectiveness of the three problem-solving strategies used in high-emotionally salient scenarios was examined. In contrast, low-emotionally salient scenarios are less stressful in nature and are less likely to lead to adverse psychological outcomes, so the effectiveness of problem-solving strategies under these circumstances was not the scope of this study. Based on the assumptions of SST, it is hypothesised that the effects of problem-solving strategies on job stress and psychological distress would be moderated by OFTP (H2). In particular, the use of PASSIVE in high-emotionally salient scenarios would be beneficial for workers with limited OFTP while the use of PROBLEM and PROACTIVE would be beneficial for workers with expansive OFTP. In summary, this study aims to investigate the effect of OFTP on the use of three problem-solving strategies in high- and low-emotionally salient scenarios among a sample of Chinese working adults. It also extends past research by investigating the moderating role of OFTP in the effectiveness of problem-solving strategies.

METHOD

Participants and procedure

To minimise the potential impact of job nature on work-related behaviours, only clerical workers were recruited for examination. A sample of 199 Chinese clerical workers participated in the study. Among them, 67% came from public sector. There were 76 males and 123 females, with a mean age of 39.48 (SD = 10.35, range = 20–64 years). To ensure a balanced sample of younger and older workers, approximately 50% of the sample were aged 40 years and above. This age cut-off was adopted from previous studies on ageing workforce (e.g. Yeung & Fung, 2012). Majority of the participants obtained secondary (44%) or tertiary education (36%). On average, the participants had been working in the organisation for 12.95 years (SD = 10.32).

Ethical approval was obtained from the research ethics committee of the affiliated university. Invitations were then sent to local companies to obtain permission to conduct the study on their clerical employees. Target age group for participation was conveyed to the companies for balancing the sample. Informed consent was obtained from each respondent. Participants were presented with a set of four hypothetical work scenarios and were asked to complete a measure on problem-solving strategies in response to each scenario. Presentation of the four scenarios was counterbalanced in the questionnaire to minimise potential response bias. Psychological well-being and demographic variables were also assessed.

Measures

Scenarios

Four hypothetical scenarios were adapted and modified from the Inventory of Stressful Events (Motowidlo, Packard, & Manning, 1986) to fit the daily work context of clerical workers. The modified scenarios were: (1) public criticism, (2) rejection of leave application, (3) cancellation of a meeting, and (4) overtime work. Scenarios 1 and 2 were high while 3 and 4 were low in emotional salience. A pilot study with 42 working...
adults was conducted to confirm the level of emotional salience of each scenario. In the actual study, participants rated the level of emotional salience on a 5-point Likert scale, with higher scores indicating greater emotional involvement (Blanchard-Fields et al., 1995). Repeated measures analysis of variance (ANOVA) showed significant differences in emotional salience between scenarios \( F(3, 594) = 531.29, p < .001, \eta^2 = .73 \). Post-hoc analyses revealed that scenarios 1 \( (M = 3.98, SD = .71) \) and 2 \( (M = 4.52, SD = .62) \) were significantly higher on emotional salience than scenarios 3 \( (M = 2.16, SD = .83) \) and 4 \( (M = 2.68, SD = .92) \).

**Problem-solving strategies**

The Chinese version of Blanchard-Fields and colleagues’ (2004) measure of problem-solving strategies was used to assess the method preferred for tackling each hypothetical scenario (Yeung et al., 2012). The scale consists of 12 items to measure PROBLEM (e.g. cognitive analysis and planned problem-solving), PASSIVE (e.g. emotional suppression and passive acceptance) and PROACTIVE (e.g. confrontational emotion coping and seeking social support). Participants rated each item on a 5-point Likert scale to indicate their level of agreement to use a particular strategy. The Cronbach’s alphas of the three strategies across scenarios were .60, .76 and .76, respectively. An average score was computed separately for each strategy in high- and low-emotionally salient scenarios.

**Occupational future time perspective**

The Chinese version of Future Time Perspective Scale (Yeung et al., 2012) was modified to measure OFTP. Modification was made by adding the word occupational to each item (e.g. “Many opportunities await me in my occupational future”). Similar modification techniques have been used by other researchers for assessing OFTP (Zacher & Frese, 2009). Participants rated 10 items on a 5-point Likert scale \( (1 = strongly disagree and 5 = strongly agree) \), with higher scores indicating more expansive OFTP. The Cronbach’s alpha of the modified instrument was .82.

**Job stress**

Job stress was assessed by the 13-item Job Stress Scale (Parker & Decotiis, 1983). Responses were given by determining the level of agreement about each statement using a 5-point Likert scale \( (1 = strongly disagree and 5 = strongly agree) \), with higher scores representing higher level of job stress. An example of the scale is “There are lots of times when my job drives me right up the wall.” The Cronbach’s alpha of this scale was .90.

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**Psychological distress**

The 12-item General Health Questionnaire (GHQ; Goldberg & Williams, 1988) was used to measure psychological distress. Participants rated each item on a 4-point Likert scale \( (1 = not at all and 4 = much more than usual) \), with higher scores representing greater distress. An example of the scale is “Loss of sleep over worry.” The Cronbach’s alpha was .85.

**RESULTS**

Table 1 summarises the correlations among demographic and major variables. The results revealed that, regardless of emotional salience, PROACTIVE was significantly positively related to PROBLEM (Low emotional salience: \( r = .59, p < .001 \); High emotional salience: \( r = .52, p < .001 \)) and PASSIVE (Low emotional salience: \( r = .30, p < .001 \); High emotional salience: \( r = .26, p < .001 \)), and the correlation between PROBLEM and PASSIVE was also positively significant (Low emotional salience: \( r = .20, p < .001 \); High emotional salience: \( r = .18, p < .01 \)). Moderate to strong correlations between the three types of problem-solving strategies have also been documented in the literature (Yeung et al., 2012).

Results showed a significant negative correlation between age and PASSIVE in low-emotionally salient scenarios \( (r = -.18, p < .01) \) as well as between age and OFTP \( (r = -.42, p < .001) \). Therefore, age was included as a covariate in the following analyses. However, sex, education and job tenure were excluded from further analysis because they were not related to problem-solving strategies or well-being outcomes.

**Effects of OFTP and emotional salience on problem-solving strategies**

It was hypothesised that the effect of OFTP on problem-solving strategies would be moderated by emotional salience of the scenarios (H1). To test this hypothesis, a repeated measures analysis of covariance (ANCOVA) was conducted by using a 2 (OFTP) × 3 (problem-solving strategies) × 2 (emotional salience) factorial design with OFTP as the between-subjects variable, emotional salience as the within-subjects variable, problem-solving strategies as the dependent variable and age as a covariate. OFTP was dichotomised into two groups by median split \( (M = 3.18, SD = .60) \). Results revealed that there was a significant three-way interaction effect among OFTP, problem-solving strategies and emotional salience \( F(2, 392) = 3.38, p < .05 \), partial \( \eta^2 = .02 \). In particular, for both low- and high-emotionally salient scenarios, individuals with expansive OFTP...
Correlation analyses

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\begin{array}{cccccccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 \\
\text{Age} & -0.09 & -0.54^*** & 0.73^*** & 0.09 & -0.07 & 0.02 & 0.02 & -0.18^** & -0.01 & -0.42^*** & 0.00 & -0.11 \\
Sex & -0.13 & -0.03 & -0.05 & 0.04 & 0.02 & 0.03 & 0.07 & 0.05 & -0.04 & -0.13 & 0.03 & \\
Education & -0.49^*** & 0.02 & 0.02 & 0.03 & 0.05 & 0.07 & -0.04 & 0.27^*** & -0.09 & -0.04 & \\
Job tenure & -0.05 & 0.02 & 0.01 & -0.13 & 0.01 & -0.34^*** & 0.02 & -0.11 & \\
PROBLEM-H & -0.18^** & 0.52^*** & 0.36^*** & 0.16^* & 0.21^*** & 0.08 & -0.07 & -0.07 & \\
PASSIVE-H & 0.26^*** & 0.09 & 0.56^*** & 0.20^* & 0.01 & 0.10 & 0.21^*** & \\
PROACTIVE-H & 0.33^*** & 0.12 & 0.46^*** & 0.28^*** & -0.05 & -0.12 & \\
PROBLEM-L & -0.20^** & 0.59^*** & 0.17^* & -0.01 & -0.06 & \\
PASSIVE-L & 0.30^*** & -0.01 & 0.04 & 0.20^*** & \\
PROACTIVE-L & 0.19^* & 0.04 & 0.06 & \\
OFTP & -0.13 & -0.28^*** & \\
Job stress & 0.38^** & \\
Psychological distress & \\
\end{array}
\]

Note: PROBLEM-H, PASSIVE-H and PROACTIVE-H denote problem-focused, passive emotion-focused and proactive emotion-focused strategies, respectively in high-emotionally salient scenarios; PROBLEM-L, PASSIVE-L and PROACTIVE-L denote problem-focused, passive emotion-focused and proactive emotion-focused strategies, respectively in low-emotionally salient scenarios.

\*p < .05. \**p < .01. \***p < .001.

were more likely to use PROBLEM (Low emotional salience: \(M = 3.60, SD = 0.4, p < .01\); High emotional salience: \(M = 3.73, SD = 0.4, p < .05\)) and PROACTIVE (Low emotional salience: \(M = 3.35, SD = 0.4, p < .01\); High emotional salience: \(M = 3.69, SD = 0.4, p < .001\)), relative to those with limited OFTP (Low emotional salience: \(M = 3.41, SD = 0.4\); High emotional salience: \(M = 3.60, SD = 0.4\); Low emotional salience: \(M = 3.14, SD = 0.4\); High emotional salience: \(M = 3.35, SD = 0.4\), respectively). In terms of PASSIVE, individuals with expansive OFTP used them less in high-emotionally salient scenarios (\(M = 2.98, SD = 0.06\)) than in low-emotionally salient scenarios (\(M = 3.11, SD = 0.05, p < .01\)), whereas those with limited OFTP used them to the same extent, regardless of emotional salience (\(M = 2.99, SD = 0.05; M = 3.08, SD = 0.05, ns\), respectively). Thus, H1 was partly supported.

### The moderation effect of OFTP on psychological well-being

It was hypothesised that the effects of problem-solving strategies in high-emotionally salient scenarios on job stress and psychological distress would be moderated by OFTP (H2). To test this hypothesis, regression analyses were conducted for job stress and psychological distress by using PROCESS, which is statistical software appropriate for testing moderation models (version 2.11; Hayes, 2013). Each moderation analysis contains one type of problem-solving strategy in high-emotionally salient scenarios as the independent variable, OFTP as the moderator, job stress and psychological distress as the dependent variables and age as a covariate. All predictors were centred to the mean. Table 2 summarises the results of the moderation analyses. A significant moderation effect of OFTP was found on the relationship between PROBLEM and psychological distress (\(B = -0.22, SE = .11, p < .05\)), but not for PASSIVE (\(B = -0.01, SE = .08, ns\)) nor PROACTIVE (\(B = -0.17, SE = .10, ns\)). As illustrated in Figure 1, a significant negative relationship between PROBLEM and psychological distress (\(B = -0.21, SE = .11, p < .05\)) was observed among workers with expansive OFTP, but such a relationship was not found among workers with limited OFTP (\(B = 0.05, SE = .08, ns\)). The moderation effect of OFTP was not found in job stress. Thus, H2 was partly supported.

![Figure 1. Simple regression slopes of problem-focused strategies on psychological distress between limited and expansive occupational future time perspective.](image-url)
Varying degrees of emotional salience, the pattern of situational context involved. Across situations with accordance with one’s goal orientation, more so than effects of OFTP on problem-solving strategies logical distress. only in the relationship between PROBLEM and psychological well-being was rather limited consistent with our prediction, the effect of problem-solving salience was high than when it was low. Partially con- had lower preferences for this strategy when emotional high-emotionally salient scenarios. While workers with LEM and PROACTIVE when dealing with low- and with expansive OFTP had higher preferences for PROB- that compared with those with limited OFTP, workers with expansive OFTP had higher preferences for PROBLEM and PROACTIVE when dealing with low- and high-emotionally salient scenarios. While workers with limited OFTP consistently preferred PASSIVE irrespective of emotional salience, those with expansive OFTP had lower preferences for this strategy when emotional salience was high than when it was low. Partially consistent with our prediction, the effect of problem-solving strategy on psychological well-being was rather limited and the proposed moderating effect of OFTP was found only in the relationship between PROBLEM and psychological distress.

**Effects of OFTP on problem-solving strategies**

Our findings suggest that strategies are selected in accordance with one’s goal orientation, more so than the situational context involved. Across situations with varying degrees of emotional salience, the pattern of strategy use among workers with limited and expansive OFTP is largely consistent with the postulations of SST (Carstensen, 2006). With increasing age, one’s OFTP becomes increasingly limited, which drives the individual to focus more on emotionally meaningful goals than knowledge-related goals. Therefore, workers with expansive OFTP prefer using PROBLEM and PROACTIVE in order to “fix” the problem or directly confront their emotions immediately. In contrast, PASSIVE showed an opposite pattern of relationship with OFTP; workers with limited OFTP consistently used PASSIVE, such as the avoidance of emotions, in order to maximise their emotionally meaningful experiences in the workplace. These findings concur with the results on age differences in problem-solving strategies (Blanchard-Fields et al., 2004, 2007) as well as the mediating effect of FTP on the age-strategy relationship (Yeung et al., 2012), shedding light on the main motivating factor that drive the use of various problem-solving strategies.

In contrast to the stress and coping literature, PASSIVE may not always be a maladaptive strategy when taking one’s FTP into consideration. For individuals with limited OFTP, the use of PASSIVE can be an effective method for maximising emotional goals and positive emotional experiences. This explanation is consistent with previous research findings that older adults are more effective than younger adults in choosing a suitable regulatory strategy to achieve their goals (Blanchard-Fields et al., 2007; Hoppmann et al., 2008). In particular, PASSIVE, such as emotional suppression, can help older individuals reduce the arousal of negative emotions when problems cannot be solved immediately (Blanchard-Fields, 2007). For

**DISCUSSION**

This study explored the influences of perception of future time at work on problem-solving strategies when handling stressful work situations. Two hypotheses were tested: (1) whether workers with expansive and limited OFTP would differ in the use of problem-solving strategies when the level of emotional salience of hypothetical work scenarios varied and (2) whether OFTP would moderate the effectiveness of problem-solving strategies. Results revealed that compared with those with limited OFTP, workers with expansive OFTP had higher preferences for PROBLEM and PROACTIVE when dealing with low- and high-emotionally salient scenarios. While workers with limited OFTP consistently preferred PASSIVE irrespective of emotional salience, those with expansive OFTP had lower preferences for this strategy when emotional salience was high than when it was low. Partially consistent with our prediction, the effect of problem-solving strategy on psychological well-being was rather limited and the proposed moderating effect of OFTP was found only in the relationship between PROBLEM and psychological distress.

| Table 2: The moderation of OFTP on the relationship between problem-solving strategies and psychological well-being |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                | Job stress      | Psychological distress |
|                                | R²   | b    | SE  | t    | R²   | b    | SE  | t    |
| Problem-focused strategies (PROBLEM) | .02 | 2.67 | .15 | 18.23*** | .11 | 2.14 | .08 | 27.79*** |
| Constant                       |      |      |     |      |      |      |     |      |
| PROBLEM                        | −.11 | .13  | −.89 |      |      |      |     |      |
| OFTP                           | −.13 | .09  | −1.45 |      |      |      |     |      |
| PROBLEM × OFTP                | −.09 | .21  | −.43 |      |      |      |     |      |
| Age                            | .02  | .09  | .24  |      |      |      |     |      |
| Passive emotion-focused strategies (PASSIVE) | .03 |      |     |      | .13 |      |     |      |
| Constant                       |      | 2.66 | .15 | 18.10*** |      | 2.12 | .08 | 27.68*** |
| PASSIVE                        | .14  | .10  | 1.46 |      | .15  | .05  | 3.00** |
| OFTP                           | −.14 | .09  | −1.54 |      | −.21 | .05  | −4.46*** |
| PASSIVE × OFTP                | −.03 | .15  | −.17 |      | −.01 | .08  | −.11  |
| Age                            | .03  | .09  | .35  |      | −.08 | .05  | −1.67  |
| Proactive emotion-focused strategies (PROACTIVE) | .02 |      |     |      |      |      |     |      |
| Constant                       |      | 2.69 | .15 | 18.25*** |      | 2.15 | .08 | 27.60*** |
| PROACTIVE                      | −.05 | .13  | −.38 |      | −.04 | .07  | −.60  |
| OFTP                           | −.13 | .09  | −1.38 |      | −.20 | .05  | −4.10*** |
| PROACTIVE × OFTP              | −.23 | .19  | −1.16 |      | −.17 | .10  | −1.66  |
| Age                            | .02  | .09  | .20  |      | −.09 | .05  | −1.97* |

Note: OFTP = occupational future time perspective.
*p < .05. **p < .01. ***p < .001.
individuals with expansive OFTP, they prefer PROBLEM and PROACTIVE to PASSIVE, even when the problems become highly emotional. This FTP-related pattern during emotionally salient situations may explain a higher level of negative emotions experienced by younger adults (Blanchard-Fields & Coats, 2008). That is, unlike PASSIVE, the use of PROBLEM and PROACTIVE cannot prevent negative emotions from being evoked.

**Problem-focused strategies and psychological well-being**

Moving beyond previous research on age differences in situation-strategy fit (Blanchard-Fields et al., 1997), goal-strategy fit (Blanchard-Fields et al., 2007) and emotional responses (Yeung & Fung, 2012), this study evaluated the effectiveness of problem-solving strategies on job stress and psychological distress among workers with expansive and limited OFTP. Findings from this study supported the above interpretation that it is adaptive when the strategy is congruent with one’s goal orientation. In particular, when PROBLEM is adopted by workers with expansive OFTP, their psychological health will be benefited. This finding is consistent with our expectation informed by SST in that workers with open-ended OFTP prefer to resolve their work problems immediately in order to achieve knowledge-related goals. Comparatively, the use of PROBLEM does not help reduce psychological distress among workers with limited OFTP and a slight positive relationship was shown. The use of PROBLEM during high-emotionally salient situations would be a mismatch with their emotional needs because this strategy cannot help them achieve emotional goals. Findings of this study reveal some preliminary indication of an opposite pattern of strategy-psychological well-being relationship between expansive and limited FTP. More research is needed in order to substantiate the potentially negative impact of PROBLEM on individuals with limited FTP. Nevertheless, the finding that PROBLEM has different effects on psychological well-being depending on one’s OFTP imposes a challenge to the widely held assumption that PROBLEM is universally effective.

Unexpectedly, job stress was not accounted for by PROBLEM, PROACTIVE or PASSIVE. This is surprising because prior research has found support for the association between problem-solving and job stress (Baker & Williams, 2001). On one hand, it is possible that the hypothetical scenarios used in this study did not fully resemble the respondents’ actual work problems, so the observed pattern of problem-solving strategies did not associate with their actual level of job stress. On the other hand, the effectiveness of problem-solving strategies on job stress should take into consideration one’s perceived controllability of the stressful situation. Past studies have shown that the effectiveness of coping to stressful encounters depends on whether the problem is perceived as controllable or uncontrollable (Cheng, 2001). Future studies should use momentary observation of actual responses to work problems in order to advance our understanding on the relationship among OFTP, problem-solving strategies and job stress.

**LIMITATIONS AND CONCLUSION**

Findings of this study should be interpreted with the consideration of several limitations. First, attention should be paid to the emotions that hypothetical scenarios evoke. Although the emotional salience of the scenarios has been empirically assessed in this study, it is still unclear what kinds of emotion were aroused while responding to each scenario. It has been suggested that anger and sadness require different emotion regulatory strategies (Blanchard-Fields & Coats, 2008). Future studies should record the emotional reactions to each hypothetical scenario in order to determine the effect of specific emotions on behavioural responses. Second, the reliability of the PROBLEM subscale was just acceptable. This may be due to the small number of items used to aggregate the construct because Cronbach’s alpha is sensitive to test length. However, some scholars have suggested that a range between .60 and .70 is still considered as an acceptable level of reliability (George & Mallery, 2003). Third, the cross-sectional nature of this study should be considered when interpreting the results. Longitudinal studies should be conducted to unravel the developmental changes of OFTP in relation to problem-solving and psychological well-being. Furthermore, future research should make use of experimental designs to manipulate the level of OFTP in order to disentangle the causal relationship.

To conclude, with a growing interest in age differences in work behaviours and well-being, findings of this study advance the literature on ageing and stress management by demonstrating the critical role of OFTP in the selection and effectiveness of problem-solving strategies among younger and older adults. In particular, the effectiveness in dealing with stressful work problems among workers with expansive OFTP can be improved by using problem-focused strategies that are consistent with their developmental goals. On the other hand, workers with limited OFTP adaptively use passive strategies across work problems because the effectiveness of problem-focused strategies diminishes for highly emotional situations. These findings contrast with the existing stereotypes and misconceptions about the inevitable age-related declines of older workers. Employers should understand that older adults are not at a disadvantage when it comes to work, but instead they require a different set of skills to tackle the stressful work environment.
This study provides insights to the design of training and development programmes, which should match the developmental goals of workers in order to maximise their strengths at work.

REFERENCES


