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“That's not what I signed up for!” A longitudinal investigation of the impact of unmet expectation and age in the relation between career plateau and job attitudes

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Running head: CAREER PLATEAU, UNMET EXPECTATIONS AND AGE

**'THAT'S NOT WHAT I SIGNED UP FOR!' A LONGITUDINAL INVESTIGATION
OF THE IMPACT OF UNMET EXPECTATION AND AGE IN THE RELATION
BETWEEN CAREER PLATEAU AND JOB ATTITUDES**

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ACCEPTED MANUSCRIPT

**'THAT'S NOT WHAT I SIGNED UP FOR!' A LONGITUDINAL INVESTIGATION
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Abstract

Career plateau is often associated with undesirable outcomes, but the reasons for this association remain unclear and the evidence for the effects of plateau has mainly been cross-sectional. The current study adopts a three-wave longitudinal design to explore a potential mechanism of the negative effects of career plateau on job attitudes. Drawing on the psychological contract and careers literature, we hypothesised that unmet expectations would mediate the effects of two key forms of career plateau, namely hierarchical plateau and job content plateau, and that these mediated effects would vary by age. Regression analysis on 110 individuals over an 8-month period revealed only two main effects, with job content plateau associated with lower job satisfaction and higher turnover intentions. However, there were indirect effects of both types of plateau on job satisfaction and turnover intentions, and indirect effects of hierarchical plateau on organisational commitment, via unmet expectations. Although the experience of career plateau was positively related to workers' age, the mediated effects of career plateau on job attitudes were observed irrespective of workers' age. This study contributes to the field by offering a new explanation as to why plateaued individuals develop unfavourable job attitudes, by offering evidence of the longitudinal links between career plateau and job attitudes, and by suggesting that organisations need to be mindful of the damaging effects of career plateau for employees of all ages.

Keywords: Career plateau, hierarchical plateau, job content plateau, unmet expectations, age, longitudinal research

Introduction

Career plateau describes a stage in the career in which a person perceives a low likelihood of receiving a formal promotion or a lack of job challenges in his or her job role (Bardwick, 1986; Ference, Stoner, & Warren, 1977). By definition, a career plateau does not imply any negativity; it is simply seen as a stage one may reach in one's career (Ference et al., 1977). Yet prior research shows a high level of concordance in suggesting that both hierarchically and job content plateaued individuals report lower job satisfaction, lower commitment to their organisations, and greater intentions to leave their organisation (e.g., Drucker-Godard, Fouque, Gollety, & Le Flanchec, 2015; Ettington, 1998; Hurst, Baranik, & Clark, 2017; Jung & Tak, 2008; Lentz & Allen, 2009; McCleese & Eby, 2006; Milliman, 1992; Wang, Hu, Hurst, & Yang, 2014). Despite such a strong pattern of findings, there has not yet been a clear explanation offered as to why reaching the supposedly neutrally-valenced stage of career plateau ought to have such detrimental effects on people's job attitudes, nor is it clear whether career plateau exerts negative effects on all people equally. Understanding the mechanisms of the plateau-outcome relationship, and the conditional factors that may strengthen or weaken it, is crucial for researchers and practitioners to gain insight into how the negative consequences of career plateau might be alleviated.

Another important issue that has been neglected in the career plateau literature is the need for longitudinal research (Ettington, 1998; Lentz & Allen, 2009; Tremblay, Roger, & Toulouse, 1995). Apart from a study by Stout, Slocum Jr, and Cron (1988), no research to date has examined career plateau and job attitudes across multiple waves of data collection. This omission raises questions about causality (Tremblay & Roger, 2004; Tremblay et al., 1995) and about the durability of effects that plateau has on job-related attitudes.

The present study therefore has three research aims. Our first aim was to investigate a potential mechanism explaining the relationship between career plateau and unfavourable job

attitudes, such as poor job satisfaction and organisational commitment, and high turnover intentions. We propose unmet expectation as a mediator based on psychological contract theory, which suggests that unmet expectations are the reason why various aspects of one's job or career situation may result in negative attitudinal consequences (Levinson, Price, Munden, Mandl, & Solley, 1962). Our second aim was to explore whether the effects of career plateau vary according to employee age. The careers, motivation and psychological contract breach literature suggest that people's expectations towards career inducements change as they age, suggesting that the extent to which reaching a stage of plateau causes expectations to be unmet (and thereby negatively influences job attitudes) will depend on the age of the employee. Our third aim was to adopt a three-wave longitudinal research design in order to test our moderated mediation model, providing a more stringent and informative test of the relationships between career plateau, employee expectations and job attitudes.

To achieve these goals, we first review the literature concerning the relationships between career plateau, employee expectations and job attitudes, as well as the influence of age on individuals' expectations, resulting in our proposed moderated mediation model (Figure 1). We then explain the methods and analyses adopted to examine our hypotheses, and present our key findings. We discuss how our findings extend theory and challenge the existing findings in the career plateau literature, then conclude the paper by acknowledging the study's limitations and its contributions.

Theory and Hypotheses

Career plateau has been a subject of research for nearly 40 years and research interest in this area has continued growing over the years. One reason why the topic continues to fascinate is that reaching a state of plateau is likely to be a reality for the majority of workers. As organisations are more commonly structured into flatter hierarchies, in order to reduce costs and promote efficiency, workers are experiencing more intense competition for fewer

promotion opportunities (Chao, 1990). Traditional views of careers, where people are expected to advance hierarchically until retirement, therefore no longer seem to exist (Bown-Wilson & Parry, 2013). Rather, the majority of workers are likely to remain in the same position for a longer period of time (Nachbagauer & Riedl, 2002), and thus may be susceptible to *hierarchical plateau*, which refers to a point in a person's career where he or she perceives low likelihood of further promotions (Ference et al., 1977). The uncertain end to the worldwide economic crisis and lack of job alternatives has also left many people underemployed, having accepted jobs for which they are overqualified and normally would not agree to take (Erdogan & Bauer, 2011; Thompson, Shea, Sikora, Perrewé, & Ferris, 2013). As such, people are accepting or staying in less challenging jobs (Thompson et al., 2013), making them susceptible to reaching a *job content plateau*, wherein they perceive a low likelihood of receiving new challenges in their role (Bardwick, 1986).

Career Plateau and Job Attitudes

In this research, we seek to explain how and under what conditions reaching the stage of hierarchical or job content plateau results in negative job attitudes. We focus on three key job attitudes that career plateau is likely to influence: job satisfaction (i.e., the degree to which a person feels contented and positive about the job; Judge & Kammeyer-Mueller, 2012), organisational commitment (i.e., a person's psychological connection with the organisation; Solinger, van Olffen, & Roe, 2008), and turnover intentions (i.e., a person's conscious and intended will not remain with the organisation; Tett & Meyer, 1993).

There is ample cross-sectional research evidence suggesting that career plateau has a negative influence on these job attitudes. Firstly, career plateau has been associated with job satisfaction. Employees who perceive themselves to be hierarchically plateaued report lower job satisfaction (Chao, 1990; Ettington, 1998; Godshalk & Fender, 2015; Milliman, 1992; Tremblay et al., 1995), as do those who perceive themselves to be job content plateaued

(Drucker-Godard et al., 2015; Lentz & Allen, 2009; McCleese & Eby, 2006; Milliman, 1992). Secondly, reaching career plateau lowers employees' organisational commitment. Studies from Milliman (1992) and Lemire, Saba, and Gagnon (1999) showed that hierarchical plateau and organisational commitment are negatively related, while several other studies suggest that this negative relationship also holds true for job content plateaued individuals (Godshalk & Fender, 2015; Jung & Tak, 2008; Lentz & Allen, 2009; McCleese & Eby, 2006). Finally, career plateau has been found to be associated with employees' turnover intentions. Milliman (1992), Lemire et al. (1999) and Xie, Lu, and Zhou (2015) all found that the more employees perceive themselves to be hierarchically plateaued, the more likely they are to leave their jobs. Recent studies have also reported similar findings with regard to job content plateau (Drucker-Godard et al., 2015; Lentz & Allen, 2009; Wang et al., 2014).

Despite these consistent findings, only one study so far has adopted a non-cross-sectional design. Stout et al. (1988) surveyed their sample of salespeople on two occasions about whether they had been promoted in the period leading up to each survey and used this data to categorise their participants into groups based on the extent of their hierarchical plateau (e.g., those not promoted before either survey were 'highly plateaued'). They then compared the levels of organisational commitment between the three groups they created (i.e., highly plateaued, moderately plateaued, non-plateaued). Like the cross-sectional designs used by other researchers in this field, Stout and colleagues' study design therefore also did not allow for the testing of longitudinal relationships. Thus, the direction of causality between career plateau and job attitudes remains an open question. Nevertheless, on the basis of the evidence so far, we propose the following hypotheses:

Hypothesis 1 Hierarchical plateau will be longitudinally negatively related to (a) job satisfaction and (b) organisational commitment, and positively associated with (c) turnover intentions.

Hypothesis 2 Job content plateau will be longitudinally negatively related to (a) job satisfaction and (b) organisational commitment, and positively associated with (c) turnover intentions.

Career Plateau, Unmet Expectations, and Job Attitudes

Although a great deal of research has explored associations between career plateau and job attitudes, there has been little attempt to understand the mechanisms responsible for these relationships. Thus, the question of why plateaued employees experience less satisfaction with their job and have less commitment to their organisation and greater intentions of leaving remains unanswered. This omission is important because the construct of career plateau is not inherently negative. The original definition of plateau from Ference et al. (1977) implies that plateau is simply a neutrally-valenced career stage. Indeed, many people who reach a plateau do so voluntarily (e.g., by rejecting promotion opportunities and challenging tasks; Godshalk & Fender, 2015), suggesting that negative effects might not be intrinsic to the construct. As such, it is crucial to understand why so many people do experience negative attitudes in response to career plateau. Moreover, understanding the reason for this may provide insight into how career plateau might be better managed in order to alleviate its negative effects.

Here, we propose that a potential answer to this question concerns employees' unmet expectations, i.e., the perceived gaps between what employees expect to encounter and what they actually experience in their jobs (Porter & Steers, 1973). The link between unmet expectations and poor job attitudes has been well established within the psychological contract literature. Employees' expectations are thought to be the basis on which the psychological contract is formed (Levinson et al., 1962). By having mutual expectations of receiving inducements from each other, both employees and employers are motivated to perform to a satisfactory level (Cropanzano & Mitchell, 2005; Levinson et al., 1962). For employees, such inducements could include receiving promotions within the organisation or being assigned

challenging tasks and new responsibilities (Low, Bordia, & Bordia, 2016; Van Vianen, De Pater, & Preenen, 2008). However, employees' job attitudes are seen to suffer if these expectations are not fulfilled. In a meta-analysis, Wanous, Poland, Premack, and Davis (1992) found that unmet expectations were negatively associated with job attitudes and behaviours, including lower job satisfaction, decreased organisational commitment, reduced job performance, and increased turnover intentions. A recent study by Maden, Ozcelik, and Karacay (2016) also confirmed that unmet job expectations are predictive of low job satisfaction and high turnover intentions.

Associations between career plateau and unmet expectations might also be anticipated. According to the psychological contract literature, employees consider it the employer's obligation to provide a job that is stimulating and challenging and expect employers to provide steady career advancements via promotions (Ference et al., 1977; Low et al., 2016). Therefore, when employees reach a hierarchical plateau, expectations towards receiving promotions are diminished. This is similar to reaching a job content plateau, whereby employees realise that their expectations to be provided with continual job challenge by their employer are not being met. Thus, reaching either hierarchical or job content plateau suggests that there will be perceptions of unmet expectation of receiving promotion (for hierarchical plateaued individuals) or of receiving challenging tasks (for job content plateaued individuals).

On the basis of the theoretical evidence discussed above, we suggest that employees are motivated to contribute to their organisation with the expectation of receiving promotion or more challenging tasks in the future. Becoming plateaued suggests that such expectations are no longer being fulfilled (Bardwick, 1986; Drucker-Godard et al., 2015; Kormanik, 2008), therefore resulting in less satisfaction with one's job, less commitment to one's organisation, and a greater intentions of leaving the organisation (Maden et al., 2016; Wanous et al., 1992). Consequently, we propose the following hypotheses:

Hypothesis 3 Unmet expectations of receiving promotion mediate the longitudinal relationship between hierarchical plateau and (a) job satisfaction, (b) organisational commitment, and (c) turnover intentions.

Hypothesis 4 Unmet expectations of receiving challenging tasks mediate the longitudinal relationship between hierarchical plateau and (a) job satisfaction, (b) organisational commitment, and (c) turnover intentions.

The Role of Age

The proposed mechanistic role of unmet expectations in carrying the effects of career plateau on job attitudes opens up the possibility that not all people experience the same consequences when they reach a stage of plateau because it is likely that people vary in the extent to which plateau leads to expectations being unmet. One characteristic that may differentiate people in this regard is their age (Ference et al., 1977).

It is well established that people's priorities change across the lifespan and that employees' expectations from their organisations may likewise change (Schalk, 2004). For example, the motivation literature suggests that extrinsic motivators such as monetary benefits or status tend to lose their attractiveness as employees age (Kanfer & Ackerman, 2004), suggesting that formal promotions may become less important to workers the older they become. Likewise, the career literature such as Super's (1980) Career Development Theory suggests that employees in their early career stage tend to have the highest promotion aspiration (e.g., the establishment stage), but as they age, such desire is replaced by directing more attention to maintaining the recognition they previously achieved (e.g., the maintenance stage). Kanfer and Ackerman (2000) further suggest that older workers have significantly less desire to learn new things at work and, in their meta-analysis, Kooij, Lange, Jansen, Kanfer, and Dikkers (2011) found that individuals' 'growth motives', including the motivation to take on further development challenges, decrease as they age. The psychological contract breach literature also

suggests that older workers take breaches in psychological contract more lightly than younger workers (Vantilborgh, Dries, De Vos, & Bal, 2015), in part because younger workers tend to have higher expectations about work in the first place (e.g., about organisations fulfilling their developmental obligations; Bal, 2009).

Taking the above sources of evidence together, it seems likely that if younger workers reach a stage of career plateau, the feeling that their organisation has failed to meet their expectations will be stronger than it would be for older plateaued workers. In turn, younger workers' responses to career plateau (via unmet expectations) may be more strongly negative compared with those of older workers. The following hypotheses are therefore proposed:

Hypothesis 5 Age moderates the longitudinal indirect effect of hierarchical plateau on job attitudes i.e., (a) job satisfaction, (b) organisational commitment and (c) turnover intentions, via unmet expectations of receiving promotions, such that mediated effects will be stronger for younger workers than for older workers.

Hypothesis 6 Age moderates the longitudinal indirect effect of job content plateau on job attitudes i.e., (a) job satisfaction, (b) organisational commitment and (c) turnover intentions, via unmet expectations of receiving challenging tasks, such that mediated effects will be stronger for younger workers than for older workers.

Summarising the aforementioned hypotheses and arguments, we establish a moderated mediation model, as depicted in Figure 1.

INSERT FIGURE 1 ABOUT HERE

Method

Participants and Procedure

A three-wave study design was adopted, in which measures of independent (career plateau), mediating (unmet expectations), and dependent (job attitudes) variables were all taken

at three different time points. This study design was chosen due to the model we were proposing, which suggests a clear causal order of variables (e.g., Demerouti, Bakker, & Bulters, 2004; Tims, Derks, & Bakker, 2016). A period of four months was chosen to separate each of the measurement points, based on the previous study of unmet expectations and job attitudes by Fisher (1985), which confirmed that this time interval is appropriate for expectations to have an effect on job attitudes.

Data were collected via online questionnaire. Three approaches were used to obtain participants: (1) open invitations on social media websites and through advertisements in public areas in Manchester, UK, (2) contacting members of the research teams' personal networks, and (3) asking these personal connections to forward the survey link to three to five working individuals. The only criteria for taking part in the study was that participants had to be working at the time of invitation and could not be self-employed. To encourage participation, a brief report of the results and a prize draw of several £100 worth of online vouchers were offered. Participants were assured that their responses would be anonymous and confidential.

Responses across the three time points were matched using participants' e-mail addresses and the online survey generator Qualtrics. A total of 523 participants took part in the Time 1 survey. At 4 months (Time 2) and 8 months (Time 3) after the first survey, the same survey was sent to them again. At Time 2, 110 out of 523 (21%) participants completed the survey, and at Time 3, 87 out of 110 (79%) took part in it again. To understand whether there were significant differences in study variables between individuals who completed all three surveys and those who dropped out, a binary variable was created to indicate whether participants at Time 1 were 'stayers' (who completed all three surveys) or 'leavers' (who completed only one or two of the surveys). We used this as a grouping variable in an independent sample t-test and found no significant mean differences on any of the main study variables between stayers and leavers (hierarchical plateau: $t = -1.24, p = .22$; job content plateau: $t = -.53, p = .60$, unmet expectations

of promotion: $t = .58, p = .56$; unmet expectations of challenge: $t = .03, p = .97$; job satisfaction: $t = .42, p = .67$; organisational commitment: $t = .73, p = .47$; turnover intentions: $t = -.51, p = .61$). In addition, we conducted Little's (1988) Missing Completely at Random (MCAR) test to compare responses that were complete or incomplete and found that the data were missing at random ($\chi^2 (170) = 153.89, p > .05$). Hence, we adopted the Expectation-Maximisation Algorithm to estimate missing values (Enders, 2001), enabling us to perform the main analysis on participants who had taken part in at least two out of three surveys.

The final sample of 110 participants who completed at least two of three surveys came from various industries (e.g., public services, healthcare, and manufacturing) in various countries (e.g., United Kingdom, Taiwan, United States of America, China, and Japan) and consisted of 77 female participants (70%) and 33 males (30.0%). They were aged between 19 and 62 years. The average age was 34.51 years ($SD = 9.89$) and the average job tenure was 2.56 years ($SD = 2.99$). The majority of participants worked full-time (94.5%) and held at least university degrees (90.0%). In terms of work level, 70 participants (63.6%) held non-managerial positions, while 28 participants were middle managers (25.4%) and 9 participants (8.2%) were senior managers.

Measures

Career plateau. Hierarchical plateau and job content plateau were measured using Milliman's (1992) career plateau scales, which are the measures typically used in contemporary career plateau studies (Jiang, 2016; Wang et al., 2014). Both types of plateau were measured using six items, on a 5-point agreement scale (1 = *strongly disagree*, 5 = *strongly agree*). In order to stay true to Ference et al.'s (1977) original definition of career plateau as an objective career stage relating to perceptions about current and future opportunities – and thus to avoid conflating plateau with one's expectations – the three items from Milliman's (1992) hierarchical plateau scale that made explicit reference to expectations were adapted. For instance, the item

“I *expect* to be promoted frequently in the future” was adapted to “I *will* be promoted frequently in the future.” Similarly, one item of the job content plateau scale was adapted: “I *expect* to be constantly challenged in my job” was changed to “I *will* be constantly challenged in my job.” The Cronbach's alpha coefficients for the adapted scales across the three time points ranged between .92 and .93 for hierarchical plateau and between .85 and .87 for job content plateau.

Unmet expectations. Due to the lack of availability of existing measures, new scales were developed to assess unmet expectations of receiving promotion and challenging tasks, based on existing measures of met and unmet expectations (e.g., Lait & Wallace, 2002; Robinson, 1996), promotion expectations (e.g., Schaubroeck & Lam, 2004), and job challenge (e.g., Ettington, 1998; Preenen, 2010; Zeitz, Johannesson, & Ritchie, 1997). The items were written by combining aspects of relevant items. For instance, a sample item of unmet expectation of receiving promotion “I have not advanced as quickly in this organisation as I initially anticipated.” was formed by combining wordings in the item “I expect to *advance quickly in this organization.*” from Schaubroeck and Lam's (2004) promotion expectation scale with the item “My experiences in this job have been better *than I originally expected.*” in Lait and Wallace's (2002) unmet expectations scale. A total of six items assessed unmet expectations of receiving promotion and five items assessed unmet expectations of receiving challenging tasks on a 7-point agreement scale (1 = *strongly disagree*, 7 = *strongly agree*). These items and the scale development procedure are presented in more detail in Appendix 1. Cronbach's alpha coefficients for the two newly-developed scales across the three time points ranged between .85 and .88 for unmet expectations of promotion and between .77 and .83 for unmet expectations of challenge.

With regards to the validity of the new scales, and to further ensure that they were distinct from the career plateau scales we used in the study, Confirmatory Factor Analysis using Mplus 8.0 (Muthén & Muthén, 1998-2017) was performed on the data collected at Time 1 ($N = 523$).

A four-factor model was specified, predicated on the notion that each unmet expectations and career plateau measure would be tapping into a unique construct. The model was assessed using a combination of three indices. A model with a good fit should achieve (1) RMSEA that is close to or lower than .06, (2) CFI and TLI that are close to or higher than .95, and (3) SRMR that is close to or lower than .08 (Hu & Bentler, 1999). Results showed that the four-factor model fit was adequate ($\chi^2 = 580.8$, $df = 219$, $p < .001$, CFI = .95, TLI = .95, SRMR = .05, RMSEA = .06), and had superior model fit than a two-factor model (combining all career plateau items into one factor and all unmet expectations into the other: $\chi^2 = 1816.58$, $df = 224$, $p < .001$, CFI = .79, TLI = .76, SRMR = .12, RMSEA = .12) and a three-factor model (hierarchical plateau and job content plateau as two factors and all unmet expectations items as one factor: ($\chi^2 = 825.13$, $df = 222$, $p < .001$, CFI = .92, TLI = .91, SRMR = .08, RMSEA = .07). This provides evidence of the distinctiveness of the four constructs.

Job satisfaction. Job satisfaction was measured using Cammann, Fichman, Jenkins, and Klesh's (1983) three-item scale with a 7-point agreement scale. An example item is "All in all, I am satisfied with my job." Cronbach's alpha across the three time points was ranged between .89 and .90.

Organisational commitment. Organisational commitment was measured on a 7-point agreement scale, using four items from N.J. Allen and Meyer's (1990) affective commitment scale. An example item for this scale is, "I really feel as if this organisation's problems are my own." Cronbach's alpha across the three time points ranged between .87 and .90.

Turnover intentions. Three items developed by Lentz and Allen (2009) were used to measure turnover intentions. Participants were asked to rate their intentions to leave the organisation on a 5-point agreement scale. In this scale, a higher score suggests that individuals have stronger intentions to leave their organisations, which indicates a more negative job attitude. An example item is "I am currently looking for another organisation to work for."

Cronbach's alpha across the three time points ranged between .84 and .89.

Control variables. Gender and job tenure were controlled for in this study. Gender was selected because there has been some debate around whether male and female employees are influenced by career plateau equally (T. D. Allen, Poteet, & Russell, 1998; Bardwick, 1986; McCleese & Eby, 2006). Job tenure was controlled for because it has been found to influence the perceptions of career plateau in prior research (e.g., T. D. Allen et al., 1998; T. D. Allen, Russell, Poteet, & Dobbins, 1999; Chao, 1990).

Results

Descriptive statistics, Cronbach's alphas, and intercorrelations for the study variables at all three time points are presented in Table 1.

INSERT TABLE 1 ABOUT HERE

Effects of Career Plateau on Job Attitudes

To test the hypotheses, we included the independent variables (hierarchical plateau, job content plateau) collected from Time 1, the mediating variables (unmet expectations of receiving promotion, unmet expectations of receiving challenging tasks) from Time 2, and the dependent variables (job satisfaction, organisational commitment, turnover intentions) from Time 3 in the analysis. While a more robust analytic strategy would be to test a change model (thus including variables at all three time points in the analysis), our matched sample size of 110 participants precluded this kind of analysis. A similar analytic approach has been taken by Bai, Lin, and Wang (2016), and Lapointe, Vandenberghe, and Boudrias (2013) have suggested this to be an appropriate way of testing causally specified mediation models.

Given the sample size for our causal model, we tested our hypotheses using multiple regression analysis. Regression analysis was performed to examine the main effects, direct effects, and indirect effects using PROCESS (Hayes, 2013), a regression-based SPSS add-on

developed to analyse mediation and moderation models. PROCESS allowed us to test the direct and indirect effects of career plateau on job attitudes via unmet expectations, and the conditional indirect effects with age as a moderator. With respect to mediation, this study follows procedures recommended by Preacher and Hayes (2004), who proposed two criteria to establish a mediated effect. First, an effect to be mediated exists, in other words, the main effect (the pathway from the independent variable to the dependent variable, path *c*) need not be significant, but the path coefficient should not be equal to zero. Second, an indirect effect, namely the product of the pathway from the independent variable to the mediator (path *a*) and the pathway from the mediator to the dependent variable (path *b*) must be significant, and in line with the hypothesised direction.

Regression analyses results, displayed in the left-hand column of Table 2, demonstrated that Time 1 hierarchical plateau was positively related to Time 2 unmet expectations of receiving promotions ($\beta = .24$, $SE = .10$, $p < .05$), and that Time 2 unmet expectations of receiving promotion was negatively related to Time 3 job satisfaction ($\beta = -.39$, $SE = .09$, $p < .01$) and organisational commitment ($\beta = -.34$, $SE = .09$, $p < .01$), and positively related with Time 3 turnover intentions ($\beta = .50$, $SE = .09$, $p < .01$). None of the main effects between Time 1 hierarchical plateau and all Time 3 job attitudes were significant (job satisfaction: $\beta = -.18$, $SE = .10$, $p > .05$, organisational commitment: $\beta = -.17$, $SE = .10$, $p > .05$, turnover intentions: $\beta = .04$, $SE = .10$, $p > .05$), suggesting that Hypotheses 1a, 1b, and 1c were not supported as there was no evidence for direct longitudinal effects of hierarchical plateau on job attitudes. However, all three of the paths were not equal to zero, meaning that the first criterion of testing mediation effect was met. The indirect effects of hierarchical plateau were estimated using bootstrapping technique (with 5,000 resamples), with a 95% confidence interval, as recommend by Preacher and Hayes (2004). Results showed that the indirect effects of Time 1 hierarchical plateau on Time 3 job attitude variables via Time 2 unmet expectations of receiving

promotion were all significant (job satisfaction: $ab = -.09$, 95% Confidence Interval (CI) $[-.20, -.02]$; organisational commitment: $ab = -.08$, 95% CI $[-.18, -.02]$; turnover intentions: $ab = .12$, 95% CI $[.02, .24]$). Therefore, Hypothesis 3a, 3b and 3c were all supported. This suggests that individuals' unmet expectations of receiving promotion can explain the negative job attitudes of hierarchically plateaued individuals.

The regression analysis results for the model for job content plateau are illustrated in the right-hand column of Table 2. Time 1 job content plateau had a positive relationship with Time 2 unmet expectations of receiving challenging tasks ($\beta = .63$, $SE = .08$, $p < .01$), which relates negatively with Time 3 job satisfaction ($\beta = -.35$, $SE = .12$, $p < .01$). In this case, the main effect of Time 1 job content plateau on Time 3 job satisfaction and turnover intentions were both significant (job satisfaction: $\beta = -.22$, $SE = .10$, $p < .05$, turnover intentions: $\beta = .19$, $SE = .11$, $p < .05$), in support of Hypothesis 2a and 2c. However, there were no significant effects of job content plateau on organisational commitment ($\beta = -.06$, $SE = .10$, $p > .05$), meaning that Hypotheses 2b was not supported. Nevertheless, the paths between job content plateau and job attitudes were all not equal to zero, meaning that the first step to examine mediation was met (Preacher & Hayes, 2004). The indirect effects of job content plateau on the job attitudes via unmet expectations of receiving challenging tasks were significant on job satisfaction ($ab = -.22$, 95% CI $[-.38, -.07]$) and turnover intentions ($ab = .19$, 95% CI $[.05, .37]$), but not on employee organisational commitment ($ab = -.08$, 95% CI $[-.24, .08]$). Thus, Hypothesis 4a and 4c, but not Hypothesis 4b, were supported, which suggests that content plateaued employees' lower job satisfaction and higher turnover intentions can be explained by their unfulfilled expectations toward job challenge.

INSERT TABLE 2 ABOUT HERE

The Role of Age

Intercorrelations shown in Table 1 suggested that age was positively related to hierarchical plateau but not job content plateau, and that it was not related to either form of unmet expectations.¹ To address whether age moderates the effects of career plateau on job attitudes via unmet expectations, we followed the statistical procedures from Hayes (2015) to examine the conditional indirect effect of age. This effect was examined by testing the significance of the *index of moderated mediation*. Hayes introduced this index based on Preacher, Rucker and Hayes' (2007) work on moderated mediation. He suggested that the relationships between the independent variable (X , i.e., career plateau), the mediator (M , i.e., unmet expectations), the moderator (W , i.e., age) and the dependant variable (Y , i.e., job attitudes) can be presented in the following two equations:

$$M = i_M + a_1X + a_2W + a_3XW + e_M \quad (1)$$

$$Y = i_Y + c'X + bM + e_Y \quad (2)$$

The conditional indirect effect, or moderated mediation, is presented as the product of the conditional effect of X on M (equation 1) and the effect of M on Y (equation 2) (Preacher et al., 2007). This value, notated as ω , in equation form, is:

$$\omega = (a_1 + a_3W)b \quad (3) \text{ or}$$

$$\omega = a_1b + a_3bW \quad (4)$$

From equation 4, the conditional indirect effect is similar to a line with a_1b as the intercept and with slope a_3b . In other words, a_3b is regarded as quantification of the effect of the moderator W on the indirect effect of X on Y via M . Hayes termed this value (a_3b) to be the *index of moderated mediation*. When this index is significantly different from zero, this shows the conditional indirect effect varies according to W and moderated mediation exists.

In the present study, the *indices of moderated mediation* were calculated using PROCESS (Hayes, 2013; Model 7). Results from Table 3 suggest that the indirect effects of the two types of plateau on job attitudes via unmet expectations did not significantly vary according to worker age. This finding suggests that workers of all ages are therefore equally influenced by

career plateau and therefore neither Hypotheses 5 nor 6 was supported.

INSERT TABLE 3 ABOUT HERE

Discussion

Prior research has provided strong evidence that workers who reach a point of stagnation in their careers, known as career plateau, also experience a variety of negative job attitudes, including lower job satisfaction and organisational commitment, and higher intentions to leave the organisation (Ettington, 1998; Lentz & Allen, 2009; Milliman, 1992; Stout et al., 1988; Wang et al., 2014). However, the reasons why this career stage ought to lead to unfavourable job attitudes have yet to be explicated. In this research, we examined unmet expectations as a mediator of the effect of career plateau on job attitudes, and also explored the moderating role of age in this mediated relationship.

Our findings revealed a lack of direct longitudinal effects of career plateau on job attitudes, for the most part, which suggests that career plateau, in and of itself, is not necessarily a negative phenomenon. The lack of main effects we observed stands in contrast to the body of prior research in the area and could emanate from our updated measure of career plateau, which we adapted in line with Ference et al.'s (1977) original definition of career plateau as an objective career stage that a person may reach when he or she feels that there are no further opportunities for promotion or challenge in the job role. The measures typically used in previous research have conflated the opportunities people currently have with their career expectations (e.g., "I expect to be constantly challenged in my job"; Milliman, 1992), and may therefore have been unintentionally tapping into something other than the career stage of plateau, based on Ference and colleagues' accepted definition.

An alternative explanation is that the lack of main effects in our research may be due to the longitudinal study design we adopted, in which our predictor and outcome variables were

measured eight months apart in time. Few studies of the effects of career plateau have used anything other than cross-sectional designs. We speculate this to be one of the reasons for our lack of direct effects, because correlations between the career plateau and job attitudes variables were mostly observed as significant when examining data collected in the same wave (and in a supplementary cross-sectional analysis on the Time 1 sample with control variables included in the analysis). This could mean that the negative effects of career plateau on job attitudes do exist, but that they are concurrent or very short-termed. According to Bardwick's (1986) theory, plateaued individuals may overcome their negative work attitudes and emotions by adjusting their perceptions, i.e., no longer considering a lack of promotion or challenging tasks as signs of failure. Instead of pursuing the impossible promotions or challenging assignments, they reset career objectives to something more achievable and work towards new goals. Hence, although being plateaued may not be ideal, it may not be devastating to their job attitudes over a period of time. Another possibility is that of a reverse causal order, such that, for example, workers who have poorer job attitudes are less likely to be successful in promotion opportunities or are less likely to be given new challenges in their roles (Tremblay & Roger, 2004; Tremblay et al., 1995).

With regards to the lack of main effect between both plateaus and organisational commitment, our results may also have been influenced by the type of commitment measured, as we have included only the affective component of commitment in our study. Affective commitment, although important, does not represent organisational commitment holistically. An increasing body of research evidence on commitment profiles suggests that individuals' behaviours are guided by a combination of affective, normative and continuance commitment concurrently, rather than by stand-alone components (Meyer & Herscovitch, 2001; Watsi, 2005). Thus, assessing each type of organisational commitment might provide greater insight into the effects of career plateau.

In our research, by separating out the career stage people are at (in terms of their opportunities for promotion and challenge in their role) from people's expectations about promotion and challenge and whether these have been met, we have identified a key mechanism explaining why career plateau can have negative effects on people's job attitudes. In line with psychological contract theory, the significant indirect effects in this study confirm that hierarchically plateaued workers have more negative job attitudes not just because of the situation itself, but because such stagnation was not what they had in mind. Thus hierarchical plateau leads to unfulfilled expectations of future promotion, and it is these unmet expectations that in turn explain plateaued workers' lower satisfaction and organisational commitment, as well as higher turnover intentions. Similarly, job content plateaued workers are dissatisfied and have higher intentions to change organisations as a result of expectations about the level of challenge in their role not being fulfilled.

With respect to age, contrary to our expectations, we found that the negative consequences of both hierarchical and job content plateau due to unmet expectations arise regardless of employees' age. One reason for the lack of moderated mediation in this study might be the mean age (34.51 years) and the standard deviation (9.89 years) of our participants, which suggest that many of the older workers in this study were aged in the mid-forties and therefore middle-aged, rather than in a late career stage nearing retirement. The lack of moderated mediation with respect to hierarchical plateau is therefore in line with previous research proposing that middle age is still regarded as a stage wherein people may expect promotion opportunities. For instance, researchers such as Buyens, Dijk, Dewilde, and Vos (2009) considered age 40 as a turning point for one's career. While some may have reached their peak in career at this age, others remain ambitious at work, which implies they are likely to have expectations about further advancements. Lashbrook's (1996) study even implies that employees' promotional expectations may increase in their late forties.

With regards to the lack of conditional indirect effect of age on job content plateau, although we had formed this hypothesis based on theories of motivation and psychological contract, our results are consistent with other research suggesting that challenge at work may be important to employees of all ages and career stages. For instance, Bardwick (1986) observed that most employees desire job challenge regardless of their age, even though older workers may rarely be given challenges due to age stereotypes held by themselves and their employers. Indeed, De Lange, Taris, Jasen, Kompier, and Houtman (2005) found that having challenging work environments is just as crucial for older employees as for younger employees because they do not have decreased motivation to learn new skills when compared with their younger colleagues. Similarly, Taneva, Arnold, and Nicolson (2016) found that older workers value both challenges in their job content and development opportunities.

Theoretical Contributions

On a theoretical level, this study makes contributions in three main areas. First, we have identified unmet expectations as a key mechanism through which career plateau influences job attitudes. Hierarchically plateaued individuals are dissatisfied with work, less committed to organisations, and intend to leave their companies because their expectation of promotion has not been met. Similarly, job content plateaued individuals are less satisfied with work and more inclined to leave their companies because their expectation of receiving challenging work has not been met. Understanding unmet expectations to be one of the reasons behind this unfavourable relationship directs organisations to take appropriate action to eliminate the unwanted consequences of career plateau. This contribution was made possible by disentangling the previous misinterpreted linkage between career plateau and expectations, and by developing new scales that measure explicitly unmet expectations of receiving promotion and challenging tasks. While numerous scales have been developed to assess general unmet expectations at work and perceptions of promotion and job challenges, no scales have

combined these aspects and focused specifically on the expectations of receiving promotions and job challenges.

The second contribution of this study is to address the role that age plays in relation to the effects of career plateau. The present study unravels some of the mysteries surrounding whether age leads to different responses due to differences in people's expectations and extends knowledge about the equally negative influence of career plateau on job attitudes over different ages. The findings therefore challenge theories which propose that promotions or work challenge lose their attractiveness as people age.

The final theoretical contribution of this study involves offering insight into the direction of causality in the relationship between career plateau and job attitudes. Our unexpected findings that hierarchical plateau was not detrimental to any of the job attitudes, and that job content plateau was unrelated to employee organisational commitment, over a period of eight months, support Ference et al.'s (1977) point that there is nothing inherently negative about the status of being plateaued. Our longitudinal data suggest that the negative effects of plateau on job attitudes are only experienced indirectly, via the effect plateau can have on unmet expectations. A direct relationship between plateau may either exist concurrently only (e.g., such that initial negative attitudes may be rectified over time due to a shift in expectations) or even in reverse causal order. This study therefore extends the career and attitude literature by raising the importance of considering the time factor in this area and by guiding researchers to rethink the direct relationship between career plateau and job attitudes.

Practical Contributions

Several practical implications can be drawn from this study. In particular, the findings that employees' unmet expectations play a crucial role in explaining the negative job attitudes of career plateaued individuals suggest that organisations need to pay attention to what employees are expecting from them. Organisations can start by avoiding making unrealistic

promises about future career advancements or work content, particularly during the recruitment stage but also in subsequent career stages (Tekleab & Taylor, 2003; Zhao, Wayne, Glibkowski, & Bravo, 2007). Frequent interactions between the employer and employees are needed to ensure that gaps in expectations of each other are kept to the minimum (Nachbagauer & Riedl, 2002; Tekleab & Taylor, 2003; Zhao et al., 2007). Giving honest appraisal and providing clear feedback, for instance, are effective ways to reduce the discrepancy between employees' expectations and managers' assessments (Bardwick, 1986).

Our finding that younger and middle-aged plateaued workers are equally susceptible to negative job attitudes suggests that organisations should remove the stereotype that younger workers are immune to feelings of being plateaued. In fact, companies should not ignore any age group when managing plateaued individuals. Rather, an organisational climate that embraces age diversity should be created by providing equal training opportunities to all employees, giving equal considerations for promotion and job transferral to employees of all age groups, and making efforts to value contributions of all employees (Boehm, Kunze, & Bruch, 2014).

Limitations and Future Research

This study has several limitations. First, the relatively small sample size, although reasonable for a three-wave study (e.g., Autin, Douglass, Duffy, England, & Allan, 2017; Salanova, Llorens, & Schaufeli, 2011), prevented the use of a more comprehensive structural equation modelling technique and meant that we were unable to include more control variables that may have influenced the relationship between career plateau and the job attitudes, such as work level and organisational tenure (T. D. Allen et al., 1998; T. D. Allen et al., 1999). The sample size of the study also limited us from conducting a cross-lagged panel analysis to understand whether reciprocal relationships exist between career plateau, unmet expectations and job attitudes, and from observing the within-individual change over time.

Second, due to the narrow and relatively young age profile of participants, the findings are not necessarily representative of employees of all ages. Caution must therefore be applied when concluding that age does not affect the influence of career plateau on job attitudes.

Third, the reliance on self-reported data means that the possibility of socially desirable responding patterns cannot be excluded. Moreover, measuring all variables using the same self-report method could cause artificial inflation of the inter-relationships between variables. Nevertheless, self-report is the most appropriate method for assessing people's self-perceptions about their career stage, expectations, and job attitudes. Since the research was conducted independently of any particular organisation, and participation was on an anonymous basis, there is no strong reason to expect that participants would have reported anything other than their true views. The separation in time of the measurements of our independent, mediating, and dependent variables also minimises the likely threat of common method bias in this study.

This study has suggested many potential directions for future investigations. First, the evidence that career plateau does not necessarily negatively influence job attitudes raises the interesting question of *why* some employees do not experience poorer job attitudes when they become plateaued. In our research, we focused on one potential moderator, age, which we expected to cause differences in expectations of promotion and challenge and thereby attitudinal responses to plateau, but found a lack of effects. However, another potential moderator that relates more directly to people's job expectations is individuals' growth need strength. Employees with high growth need strength are likely to have greater needs towards and therefore expectations of further advancement and new challenges, compared with those who have lower growth need strength (Milliman, 1992; Orpen, 1986). In support of this idea, Godshalk and Fender (2015) research suggested that some people voluntarily choose to reach a stage of career plateau and that these people may be protected from the negative consequences that are usually experienced when plateauing. Another potential moderator is contract

unreplicability. The negative effects of career plateau may be alleviated through unmet expectations according to the degree of perceived contract unreplicability. If plateaued individuals realise that their current psychological contract cannot be replicated or improved in other companies, unmet expectations may be more tolerable and be less likely to have a negative influence on job satisfaction, organisational commitment, and turnover intentions (Ng & Feldman, 2008; Sonnenberg & Van Zijderveld, 2014).

Second, the possibility for an alternative causal link between career plateau and job attitudes calls for future longitudinal studies to examine the possibility of reciprocity between these variables. In such research, job performance should also be examined, as poorer performers are usually unlikely to be promoted (hence reaching a hierarchical plateau) (Veiga, 1981), and supervisors are less willing to assign challenging assignments to them (therefore reaching a job content plateau) (Hersey & Blanchard, 1993). Further work in this area would increase our knowledge of the causal order of these variables, and offer guidelines for managing career plateau effectively.

Finally, future research could also explore the role played by age in greater depth. One important aspect of this will involve studying the relationships here with a wider age range, to examine whether differences in unmet expectations and therefore attitudes do emerge in later career stages. Another idea would be to study the potential intersectional impact of age with other key demographic factors, such as gender, in the career plateau process. In a qualitative study by Bown-Wilson and Parry (2013), focusing on career progression in older managers aged over 50, male and female older managers identified different motivation for career progression. This implies that older male and female plateaued workers may perceive reaching a career plateau differently. Consequently, it would be of value to compare how individuals of different age cohorts and gender have different expectations towards promotion and work content, and how they are influenced by career plateau.

Conclusion

In conclusion, this longitudinal study supports the original definition that career plateau is an objective status that is not necessarily negative in nature. It offers a new explanation for why individuals who have reached a career plateau often report negative job attitudes: because their expectations about the promotions or challenge they would receive in their job have not been met. In addition, this study signals that this effect is observed among both younger and middle-aged workers. Organisations must therefore make efforts to ensure that employees' expectations are realistic throughout their career to avoid unfavourable job attitudes.

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Figure 1. Hypothesised Research Model

Table 1*Means, Standard Deviations, Intercorrelations, and Coefficient Alphas*

Variables	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	10
1. Age	34.51	9.89	—	—									
2. Job tenure (year)	2.56	2.99	—	.52**	—								
3. Gender	1.68	.47	—	-.15	.02	—							
4. Hierarchical plateau T1 ^a	3.13	1.02	.92	.40**	.21*	-.08	—						
5. Job content plateau T1 ^a	2.54	.89	.87	.16	.11	.01	.47**	—					
6. UE. – promotion T1 ^b	3.92	1.34	.85	.18	.14	.09	.38**	.61**	—				
7. UE. – challenge T1 ^b	3.74	1.28	.77	.04	.06	.05	.28**	.78**	.53**	—			
8. Job satisfaction T1 ^b	5.17	1.48	.89	-.21*	-.14	.08	-.37**	-.61**	-.49**	-.51**	—		
9. Organisational commitment T1 ^b	4.33	1.45	.87	.05	.13	.03	-.18	-.31**	-.32**	-.32**	.41**	—	
10. Turnover intentions T1 ^a	2.54	1.23	.89	.15	.14	-.004	.43**	.56**	.63**	.53**	-.69**	-.39**	—
11. Hierarchical plateau T2 ^a	3.32	1.00	.92	.35**	.20*	-.01	.72**	.38**	.21*	.26*	-.33**	-.16	.30**
12. Job content plateau T2 ^a	2.68	.91	.87	.17	.05	.12	.34**	.67**	.48**	.59**	-.44**	-.38**	.41**
13. UE. – promotion T2 ^b	3.98	1.34	.86	.13	.07	.15	.23*	.47**	.71**	.44**	-.45**	-.30**	.52**
14. UE. – challenge T2 ^b	4.01	1.29	.83	.00	-.07	.11	.18	.61**	.42**	.68**	-.32**	-.36**	.39**
15. Job satisfaction T2 ^b	5.05	1.53	.90	-.18	-.04	-.04	-.30**	-.48**	-.45**	-.46**	.68**	.42**	-.52**
16. Organisational commitment T2 ^b	4.31	1.50	.87	-.05	.10	.00	-.17	-.20*	-.26**	-.20*	.41**	.75**	-.32**
17. Turnover intentions T2 ^a	2.67	1.16	.87	.02	.02	-.14	.26**	.45**	.60**	.49**	-.54**	-.44**	.71**
18. Hierarchical plateau T3 ^a	3.43	.93	.93	.27**	.07	-.02	.61**	.25**	.18	.15	-.28**	-.13	.23*
19. Job content plateau T3 ^a	2.53	.76	.85	.16	.09	-.03	.25**	.51**	.30**	.39**	-.37**	-.30**	.24*
20. UE. – promotion T3 ^b	3.89	1.14	.88	.18	.11	.13	.12	.23*	.56**	.19*	-.28**	-.27**	.33**
21. UE. – challenge T3 ^b	3.80	1.16	.78	.01	-.05	.05	.12	.51**	.29**	.59**	-.26**	-.19*	.23*
22. Job satisfaction T3 ^b	4.90	1.50	.90	-.16	-.06	-.02	-.18	-.23*	-.24*	-.24*	.55**	.37**	-.36**
23. Organisational commitment T3 ^b	4.08	1.46	.90	.05	.18	-.06	-.12	-.03	-.22*	-.09	.29**	.60**	-.19*
24. Turnover intentions T3 ^a	2.79	1.09	.84	-.10	-.14	.07	.01	.17	.33**	.21*	-.39**	-.30**	.37**

Note. *N* = 110. For gender, 1 = male, 2 = female. UE = unmet expectations. T1 - T3 = Time 1 to Time 3. ^a = scales ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), ^b = scales ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). * $p < .05$; ** $p < .01$

Table 1 (Cont'd)

Means, Standard Deviations, Intercorrelations and Coefficient Alphas

Variables	11	12	13	14	15	16	17	18	19	20	21	22	23	24
11. Hierarchical plateau T2 ^a	—													
12. Job content plateau T2 ^a	.40**	—												
13. UE. – promotion T2 ^b	.21*	.52**	—											
14. UE. – challenge T2 ^b	.24*	.77**	.52**	—										
15. Job satisfaction T2 ^b	-.33**	-.63**	-.57**	-.52**	—									
16. Organisational commitment T2 ^b	-.29**	-.38**	-.35**	-.29**	.52**	—								
17. Turnover intentions T2 ^a	.37**	.56**	.67**	.52**	-.65**	-.49**	—							
18. Hierarchical plateau T3 ^a	.72**	.30**	.17	.15	-.29**	-.15	.31**	—						
19. Job content plateau T3 ^a	.36**	.73**	.37**	.61**	-.46**	-.28**	.36**	.34**	—					
20. UE. – promotion T3 ^b	.09	.35**	.71**	.32**	-.32**	-.30**	.43**	.16	.38**	—				
21. UE. – challenge T3 ^b	.23*	.55**	.34**	.68**	-.35**	-.16	.33**	.19	.70**	.29**	—			
22. Job satisfaction T3 ^b	-.23*	-.39**	-.41**	-.34**	.61**	.44**	-.42**	-.36**	-.48**	-.47**	-.31**	—		
23. Organisational commitment T3 ^b	.18	-.26**	-.35**	-.13	.33**	.63**	-.42**	-.29**	-.21*	-.36**	-.01	.58**	—	
24. Turnover intentions T3 ^a	.10	.29**	.47**	.32**	-.42**	-.30**	.53**	.25**	.37**	.52**	.30**	-.68**	-.48**	—

Note. $N = 110$. For gender, 1 = male, 2 = female. UE = unmet expectations. T1 - T3 = Time 1 to Time 3. ^a = scales ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), ^b = scales ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). * $p < .05$; ** $p < .01$

Table 2*Regression Analysis Predicting Job Attitudes of Career Plateau Individuals, with Unmet Expectation as Mediator*

	Hierarchical plateau (Hypothesis 1 and 3)				Job content plateau (Hypothesis 2 and 4)			
	Unmet expectation promotion T2	Job satisfaction T3	Organisationa l commitment T3	Turnover intentions T3	Unmet expectations challenge T2	Job satisfaction T3	Organisationa l commitment T3	Turnover intentions T3
Control variables								
Gender	-.17 (.09)	-.03 (.09)	-.02 (.09)	.01 (.09)	-.12 (.08)	-.02 (.09)	.50 (.10)	-.03 (.09)
Job tenure	.02 (.10)	-.02 (.09)	.23* (.09)	-.16 (.09)	-.15 (.08)	-.09 (.09)	.17 (.10)	-.12 (.09)
Predictor variables								
Hierarchical plateau T1	.24* (.10)							
Direct effect		-.08 (.11)	-.09 (.09)	-.07 (.09)				
Main effect		-.18 (.10)	-.17 (.10)	.04 (.10)				
Job content plateau T1					.63** (.08)			
Direct effect						.002 (.12)	.02 (.12)	.001 (.12)
Main effect						-.22* (.10)	-.06 (.10)	.19* (.11)
Mediator								
Unmet expectations - promotion T2		-.39** (.09)	-.34** (.09)	.50** (.09)				
Unmet expectations – challenging tasks T2						-.35** (.12)	-.12 (.12)	.26 (.14)
Indirect effect <i>ab</i>		-.09* (.05)	-.08* (.04)	.12* (.06)		-.22* (.08)	-.08 (.12)	.19* (.08)
R^2	.08	.18	.17	.26	.41	.13	.05	.12

Note. $N = 110$. For gender, male = 1, female = 2. Estimation of the standard errors are in parentheses. T1 - T3 = Time 1 to Time 3. * $p < .05$. ** $p < .01$.

Table 3*Regression Analysis Results of Moderating Effect of Age*

	Unmet Expectatio n Promotion T2	Job Satisfactio n T3	Organisation al Commitment T3	Turnove r Intentio ns T3	Unmet Expectatio n Challenge T2	Job Satisfactio n T3	Organisation al Commitment T3	Turnove r Intentio ns T3
Control Variable								
Gender	-.19 (.10)	-.03 (.09)	-.02 (.09)	.01 (.09)	-.12 (.08)	-.20 (.09)	.05 (.10)	-.03(.09)
Job Tenure	.001 (.11)	-.02 (.09)	.23* (.09)	-.16 (.09)	-.13 (.09)	-.09 (.09)	.17 (.10)	-.12 (.09)
Predictor Variables								
Hierarchic al Plateau T1	.22* (.10)	-.09 (.09)	-.09 (.09)	-.07(.09)				
Job Content Plateau T1					.62** (.08)	.002 (.12)	.02 (.12)	.001 (.09)
Mediator								
Unmet Expectatio ns - Promotion T2		-.39** (.09)	-.34** (.09)	.50** (.09)				
Unmet Expectatio ns - Challengin g Tasks T2						-.35** (.12)	-.12 (.12)	.30* (.12)
Moderator								
Age	.06 (.12)				-.01 (.09)			
Hierarchic al Plateau × Age	.06 (.10)							
Job Content Plateau × Age					.06 (.08)			
Index of Moderated Mediation		-.02 (.05)	-.02 (.04)	.03 (.06)		-.02 (.03)	-.007 (.01)	.02 (.03)
<i>R</i> ²	.09	.18	.17	.26	.42	.13	.05	.12

Note. *N* = 110. For gender, male = 1, female = 2. Estimation of the standard errors are in parentheses. T1 - T3 = Time 1 to Time 3. * $p < .05$. ** $p < .01$. All variables have been centred to the mean.

Footnote

¹An additional analysis was conducted to further explore relationships between age, career plateau, and unmet expectations. Based on data collected at Time 1, participants were divided into three age groups (maintenance, establishment, and trial), mirroring the career stages in Super's (1980) Career Development Theory. ANOVA results indicated a significant effect of age group on hierarchical plateau [$F(2, 520) = 18.91, p = .00$], with each group significantly

different from one another. Employees in the maintenance stage had the highest mean score ($M = 3.72$, $SD = .93$), followed by establishment stage ($M = 3.30$, $SD = .99$) and then the trial stage group ($M = 2.99$, $SD = .94$). As for job content plateau [$F(2, 520) = .23$, $p = .80$] and the two forms of unmet expectations [promotion: $F(2, 520) = 2.32$, $p = .10$; challenging tasks: $F(2, 520) = .90$, $p = .41$], no significant mean differences were found between the groups. Although such division of data according to career stage is not without methodological limitations (Butts & Ng, 2009), the supplementary analysis offers a clearer representation of the effect age has on career plateau and expectations (Farrington & Loeber, 1996).

Appendix 1

Unmet expectations of receiving promotion items	Referenced items and scales
I have not advanced as quickly in this organisation as I initially anticipated.	“My experiences in this job <u>have been better than I originally expected</u> .” (unmet expectations, Lait & Wallace, 2002) “I expect to <u>advance</u> quickly in this organization.” (promotion expectation, Schaubroeck & Lam, 2004)
The position I hold now is below my initial expectation.	People remain in the same position if they do not receive promotions (Gerpott & Domsch, 1987; Veiga, 1981). “Have your <u>initial expectations</u> , what you thought you would get from your organization when you joined, been met?” (unmet expectations, Robinson, 1996)
I am disappointed with my current job position.	People remain in the same position if they do not receive promotions (Gerpott & Domsch, 1987; Veiga, 1981). “All in all, I am <u>disappointed</u> in this job.” (unmet expectations, Lait & Wallace, 2002)
My career advancement in this organisation has been better than I originally anticipated (R)	“I expect to <u>advance</u> quickly in this organization.” (promotion expectation, Schaubroeck & Lam, 2004) “My experiences in this job <u>have been better than I originally expected</u> .” (unmet expectations, Lait & Wallace, 2002)
I am disappointed with my current job title.	“I am unlikely to obtain a much <u>higher job title</u> in my organization.” (hierarchical plateau, Milliman, 1992). “All in all, I am <u>disappointed in this job</u> .” (unmet expectations, Lait & Wallace, 2002)
My career progression in this organization has exceeded my expectations. (R)	Hierarchical plateau refers to a stage where careers are not progressing hierarchically (FERENCE et al., 1977) “My experiences in this job <u>have been better than I originally expected</u> .” (unmet expectations, Lait & Wallace, 2002)
Unmet expectations of receiving challenging tasks items	Referenced items and scales
My work content is more repetitive than I had originally expected.	“The job is quite simple and <u>repetitive</u> .” (job challenge, Zeitz et al., 1997) “My experiences in this job have been <u>better than I originally expected</u> ” (unmet expectations, Lait & Wallace, 2002)
My work is more routine than I initially thought it would be.	“How often would you use the word <u>routine</u> to describe work itself.” (work challenge, Ettington, 1998) “Generally, this job is not <u>what I thought it would be</u> .” (unmet expectations, Lait & Wallace, 2002)
My work content is more difficult than I had originally anticipated. (R)	“In my work, I perform tasks that are <u>difficult</u> .” (job challenge, Preenen, 2010) “My experiences in this job have been <u>better than I originally expected</u> .” (unmet expectations, Lait & Wallace, 2002)
The variety of skills and talent needed in the job has lived up to the expectations I had when I first started. (R)	“The job requires me to do different things at work, <u>using a variety of skills and talents</u> .” (job challenge, Zeitz et al., 1997) “This job <u>has lived up to the expectations I had when I first started</u> .” (unmet expectations, Lait & Wallace, 2002)
This job has been more challenging than I originally expected. (R)	“How often would you use the word <u>challenging</u> to describe work itself.” (work challenge, Ettington, 1998) “My experiences in this job have been <u>better than I originally expected</u> ” (unmet expectations, Lait & Wallace, 2002)

Note. Items marked (R) are reverse scored. Phrases underlined represent the wordings used in framing the measurement items.

Highlights

- A longitudinal study on career plateau (CP), expectations, age and job attitudes.
- Hierarchical plateau itself is not associated with negative job attitudes.
- Job content plateau negatively affects job satisfaction and turnover intentions.
- Unmet expectations explains why CP results in negative job attitudes.
- CP negatively affected job attitudes via unmet expectations, regardless of age.