The Impact of Career Customization on Work Outcomes:
Boundary Conditions of Manager Support and Employee Age

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Bios

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Abstract

The current paper investigated the longitudinal effects of mass career customization (MCC) on job attitudes and objective career outcomes of employees in a professional service firm in the Netherlands. Based on theory on individualization of career trajectories, it was expected that the possibility for employees to customize their careers would be positively related to their job attitudes and subsequent objective career success, as indicated by their levels of affective commitment, work engagement, and received salary and bonuses. However, these effects were expected to occur primarily under the combination of high manager support for implementation of career customization and, based on lifespan theory, older workers, since customization fulfills their increased heterogeneous career preferences. A three-wave longitudinal study largely showed support for the study hypotheses; the relation between MCC use and work engagement and subsequent career success was stronger for older workers who received support for MCC, while the relation between MCC use and commitment was negative for older workers who received low support. The study shows the benefits of career customization in organizations by showing the conditions under which these benefits will manifest.

Keywords: career customization, older workers, aging, lifespan theory, individualization
Workplace diversity is high on the agendas of HR-departments and managers (Olsen & Martins, 2012). With growing gender, age, and ethnic diversity in the workplace, organizations have to adjust their practices. Because diversity implies that people are different from each other, this also means that people have more diverse needs in relation to what their organization offers them (Rousseau, 2005), including their career development (Gubler, Arnold, & Coombs, 2014). In response to a more diverse workplace, organizations are implementing diversity management practices to grasp the benefits of diversity (Olsen & Martins, 2012). For instance, organizations may offer employees the opportunity to customize their careers, and provide them with an individualized choice concerning how they develop their careers in the organization (Greenhaus, Callanan, & Godshalk, 2010; Rousseau, 2005). When employees are able to make individualized career choices, the advantages of workplace diversity rather than the disadvantages are presumed to dominate (Olsen & Martins, 2012). Despite their increasingly popularity, there is yet little known on the actual benefits of career customization programs for employees. In this paper, we will investigate benefits of ‘mass career customization’ (MCC), which refers to organizational programs to provide the possibility for each employee to customize the career trajectory (Benko & Weisberg, 2007).

In this paper, we argue that career customization will primarily be beneficial under certain conditions (Bal, De Jong, Jansen & Bakker, 2012). Context plays an essential role in determining the effects of career customization, and in particular it is the interplay between the environment around the employee (i.e., manager support for customization), and personal characteristics of the employee (i.e., employee age) that determines the effectiveness of customization in relation to job attitudes and career success. While previous research has argued that career customization might be particularly important for women and employees with children (Hill et al., 2008; Lambert, Marler, & Guetal., 2008), in this paper we argue that MCC may be especially relevant with
respect to the aging workforce and the associated increase of retirement age, because the need for older workers to continue working longer enhances their needs for individualized career trajectories (Bal et al., 2012; Rousseau, 2005). Aging theory (Nelson & Dannefer, 1992) predicts that the older people become, the more diverse their needs become in terms of the role of work in their lives and in how they balance their work and private life (Bal & Kooij, 2011). Therefore, through career customization, middle-aged workers are able to maintain motivation and productivity across their careers. Moreover, we propose that manager support is essential in eliciting positive effects of career customization, because a supportive manager enables the employee to successfully integrate career customization in their work (Casper & Harris, 2008; Leisink & Knies, 2011).

The current study contributes to research on workplace diversity as well as research on career customization in the following ways. First, to optimize the advantages of having a diverse workforce, it is imperative for organizations to offer individualized approaches to career development. Different groups of employees can take advantage of more individualized choices regarding their career development, through which organizations reap the benefits of diversity (Olsen & Martins, 2012). Moreover, we contribute by introducing two important boundary conditions for theory on career customization: manager support and employee age. We show that theory on the effects of MCC for employees should take both support from the manager and employee age into account. Moreover, we contribute by showing that career customization may not only enhance employee engagement and commitment over time, but also objective career success, and thus showing the potential benefits of career customization for both organizations and employees.

STUDY BACKGROUND
Organizations increasingly implement HR-policies and practices that facilitate employees to negotiate customization of their career trajectory (Benko & Weisberg, 2007; Scholarios & Taylor, 2011). Accordingly, career customization can now be considered a general HR-practice that many organizations apply, and which facilitates individual choices by employees regarding the trajectory of their career within the organization, and includes decisions on core aspects of their careers (Benko & Weisberg, 2007). Because of the increasing diversity in the workplace, organizations can no longer rely upon taking only a universalistic, one-size-fits-all approach in their HR-practices (Boxall & Macky, 2009; Purcell, 1999). Hence, it is important to take a contingency perspective such that every employee has the opportunity to make an individualized career choice (Bal, Kooij, & De Jong, 2013; Delery & Doty, 1996).

While career customization is a relatively new construct, it builds upon previous ideas about individualized work arrangements (Baltes, Briggs, Huff, Wright, & Neuman, 1999; Rousseau, 2005). There is increasing research on the customization of work arrangements by employees and organizations to facilitate work adjustment and achieve an optimal person-job fit. For instance, research on flexible work arrangements and i-deals show that they contribute to higher employee motivation, performance, and retention (Allen, Johnson, Kiburz, & Shockley, 2013; Baltes et al, 1999; De Menezes & Kelliher, 2011; Hornung, Rousseau, & Glaser, 2008; Leslie, Manchester, Park, & Mehng, 2012; Masuda et al., 2012). However, there is also research that shows that managers might perceive employees who use flexible work arrangements more negatively (Johnson, Lowe, & Reckers, 2008; Leslie et al., 2012). Thus, it is essential that research disentangles the conditions under which career customization is beneficial.

MCC, in contrast to career customization as an exception that is granted only to certain employees, is available to every employee, and hence we refer to mass. In line with the conceptualization of Benko and Weisberg (2007), we define MCC as the opportunity for each
employee to make an individual choice regarding core aspects of the career trajectory in the organization. In the organization in which the current study was conducted, this was translated into four specific dimensions that employees could customize: pace, workload, location and schedule, and roles (Benko & Weisberg, 2007). Pace addresses how quickly an employee progresses to increasing levels of responsibility and authority. Workload concerns the quantity of work an employee will perform over time, thereby taking into account the wishes of the employee for his/her career development. Hence it also defines the type of work that an employee will conduct in order to give direction to the employee’s career. Location and schedule describe where and when the employee will conduct work in the future. Finally, roles describe the position, responsibilities and job description that an employee negotiates with the organization that facilitates a particular direction of the employee’s career in the organization. MCC consists of negotiations on these four dimensions in order to facilitate a particular customized career.

MCC is comparable to i-deals, or idiosyncratic deals employees bargain with their employers (Rousseau, 2005; Rousseau, Ho, & Greenberg, 2006). I-deals emerge beyond standardized and position-based practices that are available to employees, and are resources allocated only to particular individuals (Rousseau, 2005). I-deals are more difficult to manage for organizations, due to concerns of unfairness in how i-deals are distributed (Greenberg, Roberge, Ho & Rousseau, 2004). This is different from MCC as an HR practice that is available to every employee, and which is not aimed at creating differences among employees in conditions of employment, but rather at different career trajectories of employees within the organization. Moreover, while i-deals are negotiated by employees because they are high-performers or star employees (Rousseau et al., 2006), MCC is essentially available to every employee, regardless of his/her current job performance. MCC enables organizations to enforce just distribution of individual agreements among employees in the organization. Hence, cronyism and favoritism can
be avoided in the option for every employee to customize the career (Rousseau et al., 2006). Finally, i-deals differ from MCC such that they can entail every possible agreement between employee and organization (Rousseau et al., 2006), while MCC refers to choices employees have regarding the trajectory of their career pattern only (Benko & Weisberg, 2007). Hence, while there is some overlap in content between i-deals and MCC, the choices that are made within MCC are directly related to how employees craft their careers while the scope of i-deals is much broader (Rousseau et al., 2006).

MCC is also different from flexible work arrangements (FWA; Baltes et al., 1999; De Menezes & Kelliher, 2011). While FWAs refer primarily to flexibility in work schedules and arrangements that aim to reduce work-family conflict, they are not aimed at career arrangements. In fact, most of the research on FWAs shows that while FWAs enable employees to flexibly fulfill their work, they may also lead to lower career success (Baltes et al., 1999), because employees who prioritize family over work, are perceived as less motivated to pursue a career, and hence, are less likely to achieve career success (De Menezes & Kelliher, 2011; Leslie et al., 2012). In sum, MCC is different from FWAs such that it encompasses the choices employees have with respect to their career rather than only their work schedules.

**Theory on Mass Career Customization**

The primary objective of MCC is to enhance career success among employees (Benko & Weisberg, 2007; Leslie et al., 2012), which in the current study is operationalized as objective career success, indicated by salary and received bonuses. We focus on the relations of MCC with objective success through mediation of two job attitudes: work engagement and affective commitment. Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by vigor and dedication to the job and absorption in the job (Schaufeli & Bakker, 2004), and affective commitment is defined as a volitional psychological bond reflecting
dedication to, and responsibility for, the organization (Klein, Molloy, & Brinsfield, 2012). Engagement and commitment are interrelated but distinct from each other (Hallberg & Schaufeli, 2006). While both engagement and commitment indicate positive attachments to work, engagement primarily refers to having energy and content in work (Schaufeli & Bakker, 2004), while commitment refers to an emotional attachment to the organization (Klein et al., 2012). Moreover, work engagement is energetic, while commitment is a more passive emotional bond employees feel (Klein et al., 2012; Schaufeli & Bakker, 2004).

Theory on career customization has been developed from work adjustment theory (Baltes, et al., 1999) as well as resource exchange theory (Allen et al., 2013; Blau, 1964), which both argue that when employees have the opportunity to adjust the demands of their jobs towards individual capabilities and needs, they become more highly motivated and achieve career success. Career customization theory, hence, argues that when employees can customize their careers, they achieve greater correspondence between what they want and need in their career progress and what the organization expects them to contribute. We expect two distinct processes through which MCC influences objective career success. On the one hand, MCC entails an energizing process through the resources it provides to employees (Allen et al., 2013). When employees customize their careers, they achieve greater correspondence between their careers and their abilities and needs (Baltes et al., 1999). Moreover, this will enhance employees’ perceptions of being autonomous and in control, which enhances their perceptions of having an optimal fit with their environment (Allen et al., 2013; Edwards, 1996). Greater fit and more control act as resources for employees that facilitate them to have more energy to invest in their work and career development and they subsequently become more engaged. A review by De Menezes and Kelliher (2011) showed that flexible working is indeed related to higher control, reduced stress, and higher engagement. Furthermore, Kelly and Moen (2007) concluded that flexible work
arrangements enhance control over work, and improve well-being. Thus, MCC is expected to lead to higher work engagement.

On the other hand, MCC influences organizational outcomes through a process of reciprocity, as explained by social exchange theory (Blau, 1964). Social exchange theory (Blau, 1964) states that employees and organizations engage into an exchange relationship, in which mutual obligations and reciprocity drive the behaviors of both parties. When employees can customize their careers, they feel obligated to reciprocate this. A likely outcome of this reciprocal process is an increase in organizational commitment (Cropanzano & Mitchell, 2005), even though engagement may also be affected by social exchange processes (Christian, Garza, & Slaughter, 2011). Previous research has shown that in response to family-friendly HR practices, employees show higher affective commitment (Carlson, Grzywacz, & Zivnuska, 2010). Thus, career customization may also relate to higher employee commitment.

Research has shown that work engagement and affective organizational commitment mediate the relations between HRM offered by the organization and job performance (Christian et al., 2011; Harrison, Newman, & Roth, 2006), and thus form a crucial link between the organization’s practices and the performance and career success of employees. Since MCC is linked with higher engagement and commitment, and since engagement and commitment are important predictors of career success (Harter, Schmidt, & Hayes, 2002; Kuvaas, 2008), MCC is expected to enable employees to obtain objective career success. Engaged and committed employees put effort in their jobs, are persistent and focused on their work tasks, and therefore are able to achieve high performance (Christian et al., 2011). Moreover, engaged and committed employees are more likely to invest in their organization, and to engage in contextual performance, something that will be rewarded by organizations with more career success (Harter
et al., 2002). Thus, we expect MCC to be related to career success through mediation of engagement and commitment. Figure 1 shows the theoretical model of the study.

The Role of Manager Support and Age in MCC

We expect that MCC use will primarily lead to higher job attitudes and subsequent career success under specific circumstances, and hence, it will not be beneficial in every situation for every employee. We propose that the interaction between both the manager and the employee plays a crucial role. First, manager support for MCC will be essential for successful implementation of MCC. Managers act as principal agents for the organization, and hence, communicate the organization’s willingness to successfully implement career customization for employees. When managers are not personally convinced that career customization leads to desired outcomes for both organization and employees, they will be less likely to support the employee in her/his desire to customize the career trajectory. Theoretically, MCC may be perceived as an arrangement that deviates from widely held work norms (Leslie et al., 2012; Rousseau et al., 2006). Therefore, an unwilling manager may perceive the employee asking for customization of her/his career as uncommitted to the norms of the organization concerning the traditional career trajectory. In line with attribution theory (Kelley & Michela, 1980), managers seek causal explanations for in their view unusual behavior of their subordinates. Managers who are not supportive of career customization will attribute employees’ choices for career customization from a more negative perspective. While unsupportive managers may attribute this to self-serving purposes of the employee to think only of her/his own career and work-family balance, supportive managers will be more likely to attribute this to organization-serving motives by the employee (Leslie et al., 2012).
Consequently, managers who support MCC are more likely to support successful implementation of MCC for their employees, and thus enabling them in their personal needs and values. Previous research of workplace flexibility has shown that supervisory support is essential in eliciting positive effects of customization. For instance, Ng and colleagues (2006) have shown that when supervisors supported employees by communicating clearly and providing learning, effects of workplace flexibility were enhanced. Moreover, Leslie and colleagues (2012) showed that employees who used flexible work practices only achieved career success when their managers supported them, and attributed their use of these practices to productivity motives. Hence, we expect that managers’ support for career customization is a primary boundary condition for the effects of MCC use. However, we expect that manager support is not enough, but that MCC use will primarily be beneficial for middle-aged and older workers.

Aging Theory states that while younger people may be different from each other (e.g., in personality; Caspi, Roberts, & Shiner, 2005), these individual differences tend to further increase with age (Nelson & Dannefer, 1992). The individual identity is shaped over time, and this process does not cease in adolescence (Caspi et al., 2005). Research shows that personality changes across adulthood, and that with increasing age, personality differences within age groups increase as well (Caspi, Roberts, Shiner, 2005). Thus, people become more heterogeneous in personality when they become older, while younger people are more similar in terms of personality traits. Preferences, dislikes, attitudes, and inclinations develop over time, and follow different trajectories for each individual over the course of one’s career. Thus, with increasing age, people tend to become more heterogeneous from each other. While there is no specific age at which this process starts, it is argued that there is a gradual shift when people become older, most notably around the age of 45 (Kooij, De Lange, Jansen, & Dikkers, 2008).
This increased heterogeneity is also reflected by a greater heterogeneity in work preferences among older workers (Bal & Kooij, 2011; Pitt-Catsouphes & Matz-Costa, 2008). Hence, middle-aged workers will have stronger needs for customization, because an individualized approach to careers suits their more heterogeneous needs better (Bal & Jansen, 2015). Moreover, increased heterogeneous career preferences among older workers result not only from biological processes, as explained in theory of aged heterogeneity (Nelson & Dannefer, 1992), but also due to new roles that older workers take at work and in private life, such as managers, parent, and caregiver (Super, 1980; Wang & Shultz, 2010). Consequently, when older workers are able to customize their careers, and when they receive manager support for customization, their engagement and commitment will more strongly increase over time (Bal et al., 2012; Nelson & Dannefer, 1992). Thus, MCC use will benefit middle-aged and older workers more than younger workers (Bal & Kooij, 2011).

We thus expect that MCC primarily benefits employees under the combination of two conditions: high manager support and employee age. Since stereotypes about older workers may be prevalent in the workplace (Posthuma & Campion, 2009), older workers might refrain from using MCC because they fear to be stereotyped by coworkers or their managers. However, when older workers experience that their manager supports them in their choice for MCC, they may feel less hesitation to use MCC, and therefore will only benefit from MCC under conditions of high support from their managers. Thus, manager support for MCC is crucial for older workers to overcome being stereotyped and prone to negative attributions about their reasons for using MCC (Leslie et al., 2012). Conversely, when older workers use MCC and their managers do not support them in their choice, stereotyping towards the older worker might offset the potential benefits of MCC use. In line with this, Bal et al. (2012) found in their study that i-deals only related to higher motivation to continue working under conditions of a supportive climate for
older workers. Hence, MCC use will be more strongly related to engagement and commitment, among middle-aged and older workers who receive high support for MCC from their managers. Moreover, high engagement and commitment will subsequently translate into higher objective career success. In sum, we expect that:

\[ H1 \]: There will be a three-way interaction between MCC use, manager support for MCC, and age in relation to work engagement, such that the relationships of MCC use with work engagement are strongest for older workers who receive manager support for MCC.

\[ H2 \]: Work engagement is subsequently related to higher objective career success.

\[ H3 \]: There will be a three-way interaction between MCC use, manager support for MCC, and age in relation to affective commitment, such that the relationships of MCC use with work engagement are strongest for older workers who receive manager support for MCC.

\[ H4 \]: Affective commitment is subsequently related to higher objective career success.

**Methods**

**Research Context**

This study was conducted in a professional financial service firm in the Netherlands. The organization provides services including accountancy, consultancy and financial and legal advice. The traditional career trajectory in the firm was based on the up-or-out system, which meant that employees were expected to move to higher positions in the firm every three years, or otherwise to leave the organization (Johnson et al., 2008). Employees tend to start working from an early age (18-25 years old) in this organization, after finishing their school or college/university degree, and start at low ranks and develop themselves to accountants, consultants or tax advisors. Over time, they can become director or partner, or leave the organization to work as internal accountants, controllers or tax advisors in a firm. Some older employees started to work for other firms, such as client organizations. Therefore, the average age of employees is somewhat low because older workers (older than 50, Kooij et al., 2008) tend to leave the organization. However, because employees tend to start to work for these companies early in their careers, and because of the existing up-or-out system, workers above 40-45 can be considered as ‘older’ in these firms.
Because the organization was facing increasing difficulties with the up-or-out system, it was recognized that changes in the existing career development system should be made. In 2009, the organization decided to implement MCC to facilitate employees to stay in the firm and develop alternative careers in the organization. In September 2009, the organization started implementing HR policies for MCC. Employees were offered the opportunity to negotiate a customized career trajectory, and they could make adaptations during their performance appraisal in May/June, 2010, based on the dimensions pace, workload, location and schedule, and role (Benko & Weisberg, 2007). This resulted in three employee groups: those who customized their careers, those with a common career trajectory, which meant that they did not customize but followed a by the company predefined standardized career path in line with their function, and finally a group of employees who did not participate in the career customization program. This latter group consisted of employees who refused to select a common or a customized profile. These employees may have refused this due to personal reasons, such as enduring illness or conflicts with the manager, but also employees who were directors or partners in the organization for whom the program was less applicable.

Sample and Procedure

In June 2009 (T1), all 5605 employees working for the company were invited to participate in the study. Hence, the implementation took place after the T1 measurement. In June 2010 (T2), all employees who completed the first questionnaire were invited to participate in a follow-up study. Finally, in June 2011 (T3) all respondents who completed the first measurement were again invited to take part in the study. Through personal contact and repeated email requests we tried to increase participation. By means of an online survey employees were asked to fill out the questionnaires, resulting in a total response of $N=2393$ (response rate 42.69%) at T1. Of these participants at T1, 1037 responded to the second questionnaire (response of 47.94%). Finally, 792
participants responded to the third measurement (response of 42.24%). After deleting respondents who did not complete the second measurement, we kept 553 respondents who filled out all of the three questionnaires (total response rate of 9.87%). 57 (10%) did not choose for a common or customized career trajectory, and were left out of subsequent analyses. Among the remaining 496 participants, 93 (19%) chose for career customization, while 403 (81%) respondents chose for a common career profile.

For the total sample (N = 496), 30% were female and the average age was 33.82 years (SD = 8.92; range 18-60). This can be considered representative for the organization (33% female; mean age 33 years). 72% were cohabiting or married, 32% had children. 89% had finished a college degree or higher, and on average employees had 10.16 years of work experience (SD = 9.23). Employees worked on average 44 hours per week at T1. For the employees in the common profile, 73% were male, the average age was 33.72 years (SD = 8.85), 73% were cohabiting or married, and 32% had children. 89% had finished a college degree or higher, on average they had 10.11 years of work experience (SD = 9.08), and on average they worked 45 hours per week at T1. Among employees with a customized profile, 56% was female, average age was 34.32 years (SD = 9.27), 67% was cohabiting or married, and 58% had children. 86% had finished college degree or higher, and on average they had 10.40 years of work experience (SD = 9.92). On average, they worked 41 hours a week at T1. The two groups differed significantly in the percentage of women, F (1, 494) = 10.94, p < .001) and weekly working hours F (1, 494) = 19.17, p < .001, with more women and a lower average of working hours in the customized group.

**Measures**

*MCC use* was measured as a dichotomous variable, indicating whether people were in a common career profile (0) or a customized career profile (1). *Manager support for MCC* was
measured at T2, hence after implementation of MCC. Employees filled out a three-item scale which measured the extent to which their immediate supervisor supported career customization ($\alpha = .80$; cf. Scholarios & Taylor, 2011). Responses could be provided on a 5-point Likert scale (1 = ‘not at all’, to 5 = ‘totally agree’). Items were: ‘My supervisor is enthusiastic about career customization’, ‘My supervisor supports the use of career customization’, and ‘My supervisor was honest and clear about the use of career customization’. Age was measured at T1 by asking the respondent’s chronological age.

*Work engagement* was measured at T1, T2 and T3, using the 9-item scale from Schaufeli and Bakker (2004). Responses could be given on a 7-point scale (1 = ‘never’ to 7 = ‘always’). An example item is ‘When I get up in the morning, I feel like going to work’. Reliability of the scale was .91 at T1, .92 at T2, and .93 at T3. *Affective Commitment* was measured at T1, T2, and T3 using the 8-item scale of Allen and Meyer (1990). Respondents answered using a 7-point scale (1 = ‘not at all’, 7 = ‘totally agree’). An example item is: “This organization has a great deal of personal meaning for me”. Reliability was .86 at T1, and .87 at T2 and T3.

Objective career success was measured by salary and received bonuses. *Salary* was collected at T3 through company records and operationalized as current annual salary, in line with previous research (Judge, Hurst, & Simon, 2009). Hence, salary indicated an employees’ current fixed part of their remuneration, using a categorical scale ranging from 1 = ‘less than €15,000 per year’, to 20 = ‘more than €200,000 per year’. Salary levels are negotiated at the start of the employment, and renegotiated when employees change functions within the firm or during the yearly performance appraisal. Received *bonus* was also collected at T3, indicating the bonus the employee received in the last year. The categorical scale ranged from 0 = ‘no bonus received’, 1 = ‘less than €1,000’, to 16 = ‘more than €15,000’. Bonuses were usually based on performance, such as determined in the performance appraisal and sales volume.
In our analyses, we controlled for the effects of gender (1 = male, 2 = female), highest finished education (1 = primary school, 4 = university degree), and whether employees had children living at home (1 = no, 2 = yes), because these variables may influence the effects of MCC on outcomes (Allen et al., 2013). Moreover, we controlled for the impact of job performance on salary and bonus, since these may be dependent upon performance levels. Job performance was obtained at T1 and T2 through personnel files. Job performance measures were based on the yearly performance appraisal, where the manager rated each employee’s performance on a 7-point scale, ranging from 1 = did not meet expectations, to 7 = far exceeded expectations.

**Analysis**

Analyses were conducted with path analysis using Lisrel 8.80 (Jöreskog & Sörbom, 2008), so that all hypotheses could be tested simultaneously using a single model including all the predictors. To evaluate each model, established goodness-of-fit indices were used (Hu & Bentler, 1999). We first performed a confirmatory factor analysis on the multi-item scales to test the validity of the factor structure. The proposed 7-factor structure obtained acceptable fit (work engagement T1-T3; commitment T1-T3; manager support T2; $\chi^2 = 4974.11$, $df = 1341$, $p < .001$; RMSEA = .074; SRMR = .06). Moreover, the model fitted significantly better than alternative models, including a model with all commitment items loading on one factor ($\Delta \chi^2 = 1460.12$, $\Delta df = 11$, $p < .001$), a model with engagement as one factor ($\Delta \chi^2 = 1695.45$, $\Delta df = 11$, $p < .001$), a model with engagement and commitment items loading on one factor in each year ($\Delta \chi^2 = 2789.30$, $\Delta df = 15$, $p < .001$), and a one-factor model ($\Delta \chi^2 = 5256.91$, $\Delta df = 21$, $p < .001$). Hence, the factor structure was valid.
Because identification problems may occur using all observed and latent variables simultaneously, and because the complex model would have a risk of low power (Bentler & Chou, 1987; De Lange et al., 2009), we assumed the scales and latent variables to be identical for subsequent analyses. Because our CFA showed that the factor structure was valid, the analyses were conducted using the scale scores of the multi-item variables. This approach is in line with previous other studies (e.g., De Lange et al., 2009). Age and manager support were standardized before interactions were calculated. Standardized estimates were reported, based on the covariances among the variables. Significant interactions were plotted using slope analysis with slopes one standard deviation below and above the mean of the moderator (Aiken & West, 1991).

For age, we estimated relationships for one SD younger than the mean age (25 years), and for employees one SD older than the mean (43 years). Table 1 presents the means and standard deviations, alpha coefficients, and correlations among the variables.

RESULTS

Preliminary Analyses and Model Testing

First, we compared MCC users to non-MCC users (i.e., those with a common career profile) on the variables. Table 2 shows that MCC users were more likely to be female, and obtained lower performance at T2, but higher salary at T3. Next, we tested the hypothesized model as shown in Figure 1, including additional paths based on theory. First, we controlled for stability in the outcome variables by including paths from the outcomes to the outcomes in the subsequent year. Second, because engagement and commitment are correlated (Hallberg & Schaufeli, 2006), we included reciprocal paths from commitment to engagement in concurrent and subsequent years (cf. Frese, Garst, & Fay, 2007). Moreover, we included a mediating path
from engagement and commitment to job performance and subsequent objective career success, to account for the causal links between job attitudes and objective career success (Harrison et al., 2006; Ng, Eby, Sorensen, & Feldman, 2005). Because research has shown that engagement may be influenced by levels of performance (Bakker & Bal, 2010), we also included paths from job performance to engagement. We did not include paths from job performance to commitment, because previous research has shown that commitment is unlikely to be influenced by job performance (Riketta, 2008). Finally, we included direct paths from MCC use, manager support for MCC, and age to the outcome variables to ascertain the direct effects of MCC use and support for MCC on job attitudes and career success. This model obtained acceptable fit ($\chi^2 = 118.85, df = 33, p < .001; \text{RMSEA} = .07; \text{SRMR} = .02; \text{GFI} = .98$). Figure 2 shows the results of the hypothesized relationships and Table 3 shows all the standardized coefficients.

Table 3 shows that work engagement and affective commitment are relatively stable over time for the complete sample with standardized estimates between .55 and .99. Work engagement T1 was positively related to job performance T2 ($\beta = .19, p < .001$), while controlling for the stability of job performance from T1 to T2 ($\beta = .69, p < .001$). Commitment T1 was not positively related to job performance T2 ($\beta = -.05, ns$). Job performance T2 was significantly related to both salary T3 ($\beta = .15, p < .001$) and bonus T3 ($\beta = .12, p < .01$). The total effects of work engagement T1 on salary T3 ($\beta = .50, p < .001$) and bonus T3 ($\beta = .18, p < .001$) were significant and positive, while the total effects of commitment T1 on salary T3 ($\beta = -.30, p < .001$) and bonus T3 ($\beta = -.15, p < .001$) were significant yet negative. Hence, job performance positively mediated the relation between work engagement T1 and objective career success, while negatively mediated the relation of commitment T1 with objective career success.
Further, MCC use was positively related to affective commitment T2 ($\beta = .23$, p<.001), and work engagement T3 ($\beta = .13$, p<.01), while it was negatively related to commitment T3 ($\beta = -.13$, p<.01). Moreover, MCC use was negatively related to salary T3 ($\beta = -.20$, p<.001), but positively to bonus T3 ($\beta = .18$, p<.001). The total effect of MCC use on salary T3 was negative ($\beta = -.81$, p<.001), and positive on bonus T3 ($\beta = .09$, p<.01). Moreover, manager support was related to higher affective commitment T2 ($\beta = .10$, p<.001), yet lower engagement at T3 ($\beta = -.62$, p<.001). Moreover, it was positively related to job performance T2 ($\beta = .33$, p<.001). Age was negatively related to affective commitment T3 ($\beta = -.24$, p<.05) and job performance T2 ($\beta = -.14$, p<.001), but it was positively related to both salary T3 ($\beta = .49$, p<.001) and bonus T3 ($\beta = .22$, p<.001).

*Hypothesis Testing*

The results of the hypotheses tests are shown in Figure 2. H1 predicted a three-way interaction between MCC use, age and manager support in relation to work engagement. The three-way interaction was indeed related to work engagement T3 ($\beta = .28$, p<.01). Figure 3 shows the interaction pattern. The relation between MCC use and work engagement T3 was strongly positive for older workers with higher manager support (b = .79, p<.001). Moreover, the relation was also positive for younger workers with high support (b = .30, p<.05), but not significant for younger workers with low support (b = -.18, ns). The relation was negative for older workers with low support (b = -.64, p<.001). Slope difference tests showed that the slope of the older workers with high support was significantly stronger than the slope of older workers with low support (t= 6.11, p<.001) and the slope of younger workers with low support (t = 5.18, p<.001), as well as younger workers with high support (t = 3.07, p<.01). Hence, H1 was supported; we found significant stronger relationships for older workers with high support in relation to engagement, while the relation was less strong for younger workers with high support,
non-significant for younger workers with low support, and negative for older workers with low support. H2 predicted that work engagement would be subsequently related to objective career success. Engagement T3 was positively related to salary T3 ($\beta = .14, p<.01$) and to bonus T3 ($\beta = .29, p<.001$), thereby fully supporting H2. The indirect effect of the three-way interaction was non-significant in relation to salary T3 ($\beta = .03, ns$), but positive in relation to bonus T3 ($\beta = .07, p<.05$).

H3 predicted a three-way interaction between MCC use, manager support and age in relation to affective commitment. The three-way interaction was significantly related to affective commitment T3 ($\beta = .29, p<.001$). Figure 4 shows the interaction pattern. The relationship was negative for older workers with low support ($b = -.44, p<.05$), while it was not significant for older workers with high support ($b = .02, ns$), younger workers with low support ($b = .32, ns$), and younger workers with high support ($b = -.38, ns$). Slope difference tests corroborated these findings; the slope of older workers with low support was significantly stronger than two other slopes (younger workers, low support: $t = -2.69, p<.01$; older workers, high support: $t = 1.97, p<.05$). H2 was therefore rejected; we found a significant stronger negative relationship of MCC use with commitment among older workers with low support, but not stronger positive relationships among older workers with high support. H4 predicted a subsequent relation of commitment with objective career success. Commitment T3 was negatively related to salary T3 ($\beta = -.14, p<.001$) and bonus T3 ($\beta = -.15, p<.05$), rejecting H4. The indirect effects of the three-way interaction on salary T3 ($\beta = -.02, ns$) and bonus T3 ($\beta = -.03, ns$) through commitment were also not significant. Thus, there was no indirect effect of the interaction on career success through commitment.

-----------------------------------------
Insert Figures 3-4 about here
-----------------------------------------
Additional Findings

We found significant path coefficients of MCC use with engagement and commitment while the correlations were non-significant. This may be due to a suppression effect (Cheung & Lau, 2008; MacKinnon et al., 2000). Further inspection revealed that after deleting the control variables (gender, education, and children), MCC use was no longer a significant predictor, and thus, MCC users score higher on engagement and commitment after taking the control variables into account. This can be explained on the basis that women are more likely than men to use MCC, but at the same time were less committed than men. Therefore, the zero-order correlation of MCC use with commitment was non-significant, while it became significant when we partialled out the negative correlation of gender with commitment. This is consistent with findings of Hill et al. (2008), who concluded that people may have different reasons to use flexibility at work depending on factors such as their gender, children, and care responsibilities (cf. Lambert et al., 2008). Therefore, taking these demographic differences into account provides a picture of the relation between MCC use and engagement and commitment regardless of the factors influencing use of MCC.

We also found a negative association of work engagement T1 with affective commitment T2, which after omitting the auto-correlation of commitment over time, became non-significant, and hence is due to suppression effect of the stability in commitment over time. This could be attributed to the conceptual overlap between these two constructs and the remaining variance that is explained by engagement in levels of commitment after controlling for the positive shared variance in the two constructs. While both refer to positive attachments within the current position (job or organization), work engagement is also associated with higher employability (De Cuyper, Bernard-Oettel, Berntson, De Witte, & Alarco, 2008), higher performance, and consequently a higher chance of being able to find a position outside the organization. Therefore,
there may also be a negative relation between engagement and commitment, as more highly engaged employees may have lower commitment due to their external employability.

**DISCUSSION**

This study investigated the effects of career customization for employees on both job attitudes and objective career outcomes. We ascertained whether the implementation of career customization as an HR-practice enables employees to become more engaged in their work, committed to the organization, and subsequently to achieve more success in their careers. We found that MCC use indeed enhanced employee engagement over time, and while it related to higher commitment in the same year, it was related to lower commitment over time. Moreover, the study also showed that MCC use was negatively related to salary yet positively to bonus over time. MCC users also obtained higher performance ratings than non-MCC users. Hence, we provide evidence for the benefits of MCC for employees; those who use MCC become more engaged over time, and are able to receive more bonuses. In line with work adjustment theory (Baltes et al., 1999), employees who use MCC may be able to achieve greater correspondence between what they want from their careers, and what the organization expects them to contribute. Because this brings greater control over one’s career development, employees become more engaged. We also ascertained that this higher engagement translates into more objective career success. However, and somewhat contradictory to our expectations, we also found that MCC use was associated with lower commitment over time, as well as lower salary. The negative direct relationship of MCC use with salary might be resulting from employees’ choices for downward customization, or the choice for fewer responsibilities, and hence a lower associated salary. However, through customization, and thus a more specific direction of the individualized career, employees become more engaged and receive higher bonuses for their contributions. Hence,
through customization people may realize objective career success through investing energy into their work, achieving better job performance, and being rewarded by higher bonuses.

To explain the findings of commitment, it is important to take employee age and the extent to which managers support MCC into account. We found that the relations of MCC use with engagement were more strongly positive among middle-aged and older workers who received high manager support, while the relation between MCC use and engagement and commitment were negative among middle-aged and older workers with low manager support. Hence, when employees use MCC it will enhance their engagement, and maintain their commitment, but only when their managers support them in their use of MCC. When managers do not support older workers, they tend to become less engaged and committed to their organization when they choose to customize their careers.

This study thus shows that the manager should actively support MCC use, and second, that MCC use is more beneficial among older workers, and not necessarily among younger workers. Moreover, the study shows that higher work engagement is particularly associated with higher objective career success (i.e., salary and bonuses). Thus, this is the first study that shows that organizations that implement career customization programs may benefit from higher employee engagement, job performance and objective career success. Hence, there is evidence for the ‘business case’ of career customization, and evidence for beneficial effects for both employees and organizations (De Menezes & Kelliher, 2010).

We found the strongest effects of work engagement on career success, and not of affective commitment. These differences can be explained using the circumplex model of well-being (Bakker, Albrecht & Leiter, 2011). While engagement refers to activation, commitment is a more passive de-activating state, which does not automatically trigger employees to perform. Indeed, the relation of commitment with job performance has been found to be positive but relatively
weak (Riketta, 2008). Moreover, other moderating effects may be present in the relation between commitment and performance, such as autonomy and job tenure (Riketta, 2008).

Career customization can be theorized in line with work adjustment theory as a way to achieve correspondence between work and personal life (Allen et al., 2013; Baltes et al., 1999). We found much less support for career customization as a function of reciprocity, as social exchange theory would predict an increase of commitment following the use of career customization. It may be that the theoretical underpinning of career customization should primarily been argued in terms of work adjustment and increase of control. We even found some negative relations of MCC use with affective commitment over time, and in particular among older workers without support. This may be explained on the basis of stereotypes managers may have towards older workers (Leslie et al., 2012). When managers have negative stereotypical views of their older workers, they may be biased and hence not support them when they opt for career customization. As a consequence, older workers lack the support to successfully transfer career customization to their daily work, through which they feel less engaged and committed.

Finally, we have shown that career customization is also indirectly associated with higher objective success, via its potential effect on engagement. In line with previous research (e.g., Christian et al., 2011), engaged employees are more likely to invest in their work, and to engage in OCBs, which will result in higher objective outcomes. Thus, this study also contradicts popular stereotypes about older workers who are expected to gradually withdraw from their work roles and have needs for lower job demands, by showing the value of the active older worker who can achieve career success through personalized career agreements and increased engagement (Bal et al., 2012; Havighurst, 1961).

*Theoretical Implications*
The study has a number of theoretical implications. First, the study adds to research on workplace diversity by showing that career customization may enable different groups in organizations to take advantage of the opportunity for an individualized choice regarding the career. Hence, the workplace diversity literature may benefit from integration with research on individualization in the workplace (Rousseau, 2005). The study shows that career customization has effects on both subjective and objective outcomes, but these effects do not universally manifest themselves. Therefore, research on the effects of career customization should further disentangle under which conditions, and how, career customization enables employees to become more engaged and committed, and to obtain a healthier work-life balance (Leslie et al., 2012). Moreover, while previous research has shown that customization can be important for women and employees with children (Hill et al., 2008; Lambert et al., 2008), this study showed that customization is also beneficial for older workers. Hence, it is important to negotiate individual agreements with older workers about how they can craft their careers such that they maintain engagement and motivation to continue working (Bal et al., 2012). Future research should also ascertain why people choose to customize their careers to gain full understanding of the processes that occur before making a decision to customize one’s career.

Finally, we have used multiple theories in relation to career customization, and we found more support for work adjustment theory (Baltes et al., 1999) and less so for social exchange theory (Blau, 1964) in relation to MCC. Future research should further ascertain the validity of these theories with respect to career customization. Career customization can be perceived from a best-fit perspective on HRM (Purcell, 1999), which postulated that it is crucial to investigate the conditions under which HR-practices, including career customization, lead to desired outcomes. Furthermore, research should therefore investigate whether employees indeed use career customization to adjust work to their personal preferences (in line with work-adjustment model;
Baltes et al., 1999), and how career customization forms the basis of the reciprocal exchange agreement between employee and organization (social exchange theory; Blau, 1964). A stronger validation of these theories in relation to the career customization will shed more light on the effects of individualized career patterns for employees.

Strengths and Limitations

The study has a number of strengths and limitations. First, this longitudinal study investigated over the course of three waves how work outcomes were influenced by career customization for employees. We ascertained relationships longitudinally, integrated data from multiple perspectives, such as the employee, the manager (job performance ratings) and objective archival data (career profile and salary and bonuses), and therefore prevent common method bias to influence our results. One of the limitations was that we were only able to investigate the effects of career customization over the course of two years, while it may also be that the effects may manifest themselves over a longer period of time. Because the program was new in the organization, it might be that some employees might have been hesitant to participate. This could have caused the overall low number of participants in the program, and it may be that when the program continues to exist more employees opt in and customize their careers.

Another limitation was that there were few employees in the organization older than 50 years, since the performance management system in the organization was such that employees are expected to make promotions in the organization every three year, and when they did not get a promotion, they were expected to leave the organization. Hence, the study showed that aging effects may start after the age of 40-45, but future research should more specifically investigate these processes in a sample consisting of workers older than 50. While aging may influence behavior from the age of 45, the effects will be more profound when people are above 50 or 60. Therefore, they may benefit from MCC even more at higher ages. Age effects may thus be
deflated in this study due to range restriction (Siemsen, Roth, & Oliveira, 2010), and we expect even stronger effects in organizations with larger age ranges. Furthermore, while we found that women were more likely to use MCC than men, it could be argued that women might have benefitted from MCC more than men, and especially older women (Gordon, Whelan-Berry, & Hamilton, 2007). Future research may also further disentangle differences among older workers in their responses to MCC use, such as gender differences.

Moreover, the sample might be not representative for a broader population, since the financial service firm operated in a highly competitive environment, attracting employees who tend to place greater value on monetary rewards in their work than might be the case in other sectors. While the organization may be representative for the wider sector of professional service firms (Johnson et al., 2008), there may be differences with other sectors. For instance, there are many organizations that have less stringent career development expectations, and hence, the opportunity within other organizations to provide employees to customize their careers may be even greater given that other organizations may have more leeway for employees to request demotion and horizontal career steps (Josten & Schalk, 2010). Hence, different career outcomes may also be relevant in other sectors, such as career satisfaction and work-life balance. A further limitation was the existence of suppression effects in the structural equation models, which indicates that relations of MCC use with the outcomes should be further disentangled beyond the effects of age and manager support. Finally, we could not compare employees who used customization to employees who wanted to use career customization but did not have access. Hence, future research should also investigate differences among employees in organizations with career customization to organizations that do not have such programs.

Practical Implications
The study has various managerial implications. First, many organizations are struggling with motivating older workers to continue working (Armstrong-Stassen & Ursel, 2009). This study shows that employee engagement will increase when mid-career workers have the opportunity to customize their career pattern and when their managers are supportive of the use of customization. Hence, the possibility to individually negotiate work arrangements with the manager enables mid-career workers to regain work engagement, through which they may be motivated to continue working (Bal et al., 2012). The manager plays an important role, since employee perceptions of manager support for career customization is essential in bolstering engagement and commitment among employees.

Younger workers benefit to a less extent from career customization, but offering them the option to customize their careers in the future and provide enough support by managers for career customization may enhance the likelihood that employees retain enough levels of engagement in their work. When employees do not reap the benefits from individualization of work arrangements immediately, the effects may still manifest in the long run, when younger workers have proceeded through their career and may show the need to use career customization.

Conclusion

The current study investigated the effects of career customization use among employees in a financial service firm in the Netherlands. Based on work adjustment theory and social exchange theory, we predicted and found that career customization is related to higher work engagement and consequently objective career success. However, the relations manifested primarily among mid-career and older workers who perceived high manager support for career customization. Moreover, engagement and commitment decreased among older workers who used customization but did not receive manager support for customization. In sum, career customization is beneficial
for employees and organization, but primarily for mid-career and older workers, and when managers support use of career customization.
REFERENCES


Judge, T.A., Hurst, C., & Simon, L.S. (2009). Does it pay to be smart, attractive or confident (or all three)? Relationships among general mental ability, physical attractiveness, core self-evaluations, and income. *Journal of Applied Psychology, 94*, 742-755.


Table 1: Means, standard deviations, reliabilities and correlations of the study variables.

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Note. Reliabilities are reported along the diagonal. N = 496. *p<.05, **p<.01. MCC = Mass Career Customization.
Table 2: Differences between MCC users and Non-MCC users.

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<th>Mean (SD) Non-MCC users (N = 403)</th>
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<td>4.31 (.93)</td>
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<td>8.39 (3.59)</td>
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### Table 3: Standardized Estimates for Final Model.

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*Note.* *p* < .05, **p* < .01, ***p* < .001.
Figure 1: Research Model of the Current Study (Hypothesized Relationships in Bold; dashed lines indicate controls)
Figure 2: Results of Path Analyses (hypothesized relationships depicted only; results show relationships of work engagement before the slash and relationships of affective commitment after the slash).
Figure 3: Three-way Interaction between MCC Use, Manager Support T2 and Age in relation to Work Engagement T3.
Figure 4: Three-way Interaction between MCC Use, Manager Support T2 and Age in relation to Affective Commitment T3.