

# Which factors make the difference for explaining growth in newcomer organizational commitment? A latent growth modeling approach

LETICIA GOMES MAIA<sup>1\*</sup>, ANTÔNIO VIRGÍLIO BITTENCOURT BASTOS<sup>2</sup> AND OMAR NATHANAËL SOLINGER<sup>3</sup>

<sup>1</sup>Federal University of Bahia and Central Bank of Brazil, Brazil

<sup>2</sup>Federal University of Bahia, Salvador, Brazil

<sup>3</sup>Vrije Universiteit Amsterdam, The Netherlands

## Summary

Previous studies on newcomer socialization have evidenced quite consistently that newcomers' affective commitment tends to decline in the first years of employment. In this paper, we attempt to explain why a minority of Brazilian newcomers in a governmental organization ( $N = 194$ ) display growth in commitment (33 per cent) in the first 3 years of employment, despite the fact that the odds are clearly in favor of decline (62 per cent). We reasoned that the minority displaying growing commitment may have had qualitatively different work experiences or would have different personal characteristics. We used latent growth modeling and *post hoc* tests to analyze the hypotheses. Concerning individual differences, newcomers with growing commitment were on average older but did not have higher work centrality. Concerning work experiences, newcomers whose training matched the job (high person–job fit) and whose tasks were challenging were more prevalent in the growing commitment group. The newcomers who showed declining commitment were more likely to feel overwhelmed by the amount of work in the new role (high role overload) and were typically *not* promoted to higher ranks. Change in commitment also predicted self-reported performance (productivity and initiative) 3 years after organizational entry. Copyright © 2016 John Wiley & Sons, Ltd.

**Keywords:** organizational commitment; latent growth modeling; change; longitudinal; job performance

Organizational commitment has traditionally been conceptualized as a relatively stable phenomenon that explains consistency in employee behavior, such as staying employed by the organization (Becker, Ullrich and Van Dick, 2013; see also Meyer & Allen, 1991; Mowday, Porter, & Steers, 1982). Recent theory and empirical evidence, however, prove that commitment is a dynamic phenomenon that grows and declines in reaction to positive and negative experiences on the job, especially among newcomers (Kammeyer-Mueller, Wanberg, Glomb, & Ahlburg, 2005; Klein, Molloy, & Brinsfield, 2012; Solinger, Hofmans, & Van Olffen, 2015). Given that recent theory discusses commitment as a dynamic phenomenon, it should be studied with longitudinal designs where change in commitment is focus of prediction. In fact, prior reviews have shown that many unanswered questions remain with regard to predicting *change in* commitment (e.g., Bergman, Benzer, Kabins, Bhupatkar, & Panina, 2013; Morrow, 2011). Newcomer socialization is an especially interesting setting for predicting change in affective organizational commitment (AOC). Most of the prior research (reviewed later) shows that commitment tends to decline over time during the first years on the job. However, more recent evidence shows that there are also small minorities of newcomers who show growing and stable trajectories of commitment over time (e.g., Solinger, Van Olffen, Roe, & Hofmans, 2013). A major question we ask ourselves in this study is therefore, “What explains growth in newcomer affective commitment while the odds are clearly in favor of decline?”

\*Correspondence to: Leticia Gomes Maia, Federal University of Bahia, Central Bank of Brazil, SBS Qd. 3, Bl. B, 16°, Asa Sul, Brasília, Distrito Federal, 70.074-900, Brazil. E-mail: leticiamaia@leticiamaia.com.br

We attempt to answer this question in several ways. We argue that those who grow in affective commitment may do so because they encountered qualitatively different kinds of work experiences or because they are different types of people. With “qualitatively different” work experiences, we mean the possibility that some motivating work experiences (such as being the right person for the job, having challenging tasks, or being promoted) explain growth, while straining work experiences, such as role overload, may be more explanatory for decline in affective commitment. Concerning personal factors, we expected that older age and work centrality would enhance newcomers’ propensity for growing commitment.

To probe into these hypotheses, we tracked the AOC of Brazilian newcomers in a large governmental organization across their first 3 years of employment. We also assessed how change in AOC impacted on newcomers’ self-reported performance (concerning productivity and initiative) 3 years after entering the organization. After all, commitment is not only an outcome to be explained but also an important factor in explaining organizational effectiveness (Harrison, Newman, & Roth, 2006; Harter, Schmidt, & Hayes, 2002; Harter, Schmidt, Asplund, Killham, & Agrawal, 2010). There is some preliminary evidence that change in commitment does impact on change in performance. For instance, Ng, Feldman, and Lam (2010) found that declining innovation-related employee behavior was related to decline in organizational commitment, although this test was not conducted in a newcomer socialization context.

## Theoretical Framework

### *Our definition of commitment*

Organizational commitment is often defined as a linkage, bond, or attachment of the individual to the organization (Buchanan, 1974; Klein, Molloy, & Cooper, 2009; O’Reilly & Chatman, 1986). In the three-component model of organizational commitment, there are different mindsets with which employees remain attached to the organization. The first is a mindset of desire, where the employee wants to remain with the employer out of a sense of affective attachment. This mindset refers to AOC, which highlights the emotional nature of the bond between the person and the organization. It was defined by Meyer and Allen (1991, p. 67) as “the employee’s emotional attachment to, identification with, and involvement in the organization.” The second mindset is one of obligation, where employees feel morally compelled to stay, referring to normative organizational commitment. The third mindset is one of cost awareness where the employees perceive their organization-specific investments and lack alternatives to move elsewhere, referring to continuance organizational commitment (Meyer & Herscovitch, 2001; Meyer & Allen, 1991). We are especially interested in affective commitment because this type of bond has the strongest correlations with desirable behaviors at work (Harrison et al., 2006; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) and is the least sensitive to cultural differences given our focus on the Brazilian work context (Meyer et al., 2012). Moreover, affective commitment is conceptually the least controversial of bonds, according to recent critiques of the three-component model (Klein, Molloy, & Brinsfield, 2012; Solinger, Van Olfen, & Roe, 2008); it also is the most consistent with other measures of commitment, such as attitudinal measures of commitment (Organizational Commitment Questionnaire (OCQ), Mowday, Steers, & Porter, 1979; 3CAS, Solinger et al., 2015) and recent the unidimensional measure (see Klein, Cooper, Molloy, & Swanson, 2014, for empirical evidence).

### *The dynamics of newcomer commitment*

Being a newcomer in an organization is an inherently temporal experience because one is explicitly being prepared for the future (Ashforth, 2012). During the process of socialization, one transits from being an “outsider”

into an organizational “insider” (Feldman, 1981). Once the newcomer has the social knowledge and skills necessary to fulfill the new organizational role, the episode of socialization is finished (Van Maanen & Schein, 1979). Socialization scholars have been quite aware of the fact socialization is a taxing episode that is governed by turbulence, shocks, insecurity, and information overload (Louis, 1980; Meyer & Allen, 1997; Van Maanen & Schein, 1979). Specifically, scholars have argued that newcomers tend to enter organizations with unrealistic, inflated expectations and then go through a series of “reality shocks,” which make them re-evaluate their work expectations (Louis, 1980). Such a process of downward adjustment of expectations has often been related to the decline of job attitudes during the socialization period. The pattern of adjustment of commitment has therefore often been called “honeymoon hangover” because levels tend to start off high and then drop off (e.g., Boswell, Shipp, Payne, & Culbertson, 2009; Cropanzano, James, & Konovsky, 1993; Solinger et al., 2013; Veninga & Spradley, 1981).

To explore the robustness of the phenomenon of declining newcomer commitment (honeymoon hangover), we conducted a review of previous studies to identify empirical findings involving three or more measures of OC/AOC. Note that two points in time are not ideal for studying changes (Singer & Willett, 2003). The search resulted in 20 scholarly articles. We observe that most of these studies did not explicitly test for within-person decline in commitment (for exceptions, see Bentein, Vandenberg, Vandenberghe, & Stinglhamber, 2005; Lance, Vandenberg, & Self, 2000; Kammeyer-Mueller et al., 2005; Solinger et al., 2013). The general trend captured by most studies employing aggregate-level analysis is that organizational commitment levels decrease over time (Beck & Wilson, 2000; Cohen & Freund, 2005; Costa & Bastos, 2013; Earl & Bright, 2007; Farkas & Tetrick, 1989; Farrel & Petersen, 1984; Lee, Ashford, Walsh, & Mowday, 1992; Levy & Williams, 1998; Maier & Brunstein, 2001; Meyer & Allen, 1987; Meyer & Allen, 1988; Meyer, Bobocel, & Allen, 1991; Neininger, Lehmann-Willenbrock, Kauffeld, & Henschel, 2010; Porter, Crampon, & Smith, 1976; Van Maanen, 1975; Vandenberg & Self, 1993). Of these longitudinal studies, two contained latent growth modeling (LGM) with an explicit focus on change over time (Bentein et al., 2005; Lance et al., 2000), and one used latent class growth modeling (Solinger et al., 2013). The latter studies generally found organizational commitment to decrease over time, although Solinger et al. (2013) also found distinct classes of declining, stable, and growing trajectories.

How can there be growing trajectories while prior evidence clearly suggests a rule of declining commitment? The studies that highlighted decline were based on aggregate-level (i.e., sample level) mean differences. Sample-level decline would still permit multiple alternative trajectories (even a class of growing trajectories) as long as the proportions would still favor decline rather than stability (cf. Becker et al., 2013; Roberts, Walton, & Viechtbauer, 2006). What explains *growing* newcomer commitment while the odds are clearly in favor of decline? There are two possible ways to explain this conspicuous difference. Our first answer is that the ones who show growth versus decline would also display systematic differences in their *work experiences*. We argue that those with growing commitment would have had more motivating work experiences (person–job fit, promotion, and job challenge), while those with declining commitment would have had more straining (i.e., stressful and health deteriorating) experiences, such as role overload. Our second answer is that those displaying growth in commitment are likely to be *different types of people*. That is, personal factors predict different initial levels of commitment upon entering an organization. These initial levels may, in turn, reflect the different individual propensities that will ultimately strengthen or weaken this bond over time, depending on subsequent work experiences (Mowday et al., 1982). We test for the effect of age and work centrality in that respect.

### *Are growing trends explained by different types of work experiences?*

Work experiences and management practices are of great importance for explaining between-subject variance in affective commitment (Mathieu & Zajac, 1990; Meyer et al., 2002). The available studies that predict (within-subject) *trajectories* of newcomer commitment have highlighted the predictive role of meeting prior expectations, future-oriented job expectations, job choice difficulty, and perceived breaches of the psychological contract (e.g., Chen,

Ployhart, Thomas, Anderson, & Bliese, 2011; Lance et al., 2000). Although these studies have revealed valuable information on how to achieve growing commitment, they are also limited in the sense that they assume that high or low values in these predictors contribute equally to change in commitment. Granted, there may be a class of variables that contribute to both growth and decline in the same way. However, this assumption may not hold in all instances. In this paper, we are especially interested in the possibility of growth and decline in commitment being explained by a different set of factors. This is not an unrealistic assumption. For instance, while role stress (role ambiguity, role conflict, or role overload) may explain why commitment declines, the *absence* of role stress does not necessarily explain *growing* commitment. Similarly, job choice difficulty buffers against decline in commitment caused by negative newcomer experiences (Lance et al., 2000), but it does not explain why a given newcomer's commitment may *grow*.

Interestingly, there is meta-analytical evidence that challenging job demands (e.g., responsibility, promotion, and difficult tasks) have a positive impact on employee motivation and performance, while hindering job demands (role stress, conflict, hassles, and red tape) have negative effects (Crawford, LePine, & Rich, 2010; LePine, Podsakoff, & LePine, 2005). With this evidence in mind, it is reasonable to assume that challenging and intrinsically gratifying work experiences predict growth in commitment, while hindering experiences, such as role stress, predict decline.

We assume that variables associated with higher organizational commitment in prior research are likely to be related to a trajectory of increasing commitment over time. This is an important assumption of this study, because we are not investigating just commitment, but instead, we are investigating the process of becoming more or less committed over time. Metaphorically, we are setting up a movie from photographs. Cross-sectional studies are as photos, and one important effort that has to be included in the commitment research agenda is to assemble a sequence of photos that makes sense, so we can develop theory on how the movie (i.e., the process of becoming more or less committed over time) will be like.

Given these assumptions, we will investigate the effects of three work experiences that are expected to contribute mainly to growth in commitment: promotion, person–job fit, and job challenge. We will also test the effects of a classic straining factor: role overload.

### Promotion

A promotion can be understood as an incident of positive career advancement where the employee receives a higher hierarchical position or an additional set of responsibilities inside (or outside) an organization. Because of the associated advancement and progress in one's career, job promotion has positive effects on job attitudes. Weng, McElroy, Morrow and Liu (2010), for instance, found that the career growth factors influence AOC. That is, promotions open prospects for new learning challenges that can enrich the individual's professional repertoire, creating a positive outlook for more complex tasks in the future. Promotion is often granted as a mean of recognizing and rewarding the efforts and qualities of employees. Previous research indeed suggests that internal promotion is related to commitment among employees (Gaertner & Nollen, 1989; Johnston, Griffeth, Burton, & Carson, 1993; Weng et al., 2010).

That said, one of the questions that needs to be addressed at this point is whether there is a reversed causality effect. Do promotions create growing commitment, or does growing commitment make promotions more likely? Realistically, the causality could flow in both ways, creating a so-called *success spiral* (Ashforth, 2012; Solinger et al., 2013) where committed newcomers become more easily promoted and promoted newcomers more easily committed. We leave the confirmation of such a success spiral to future research. For now, we assume that employee becomes more affectively committed to the organization *after* having been promoted, while keeping in mind that the reverse effect is equally plausible. Hence, we expect that the promoted employees will be more likely to have an increasing trajectory of AOC levels. Therefore, we propose the following hypothesis:

*Hypothesis 1:* The individuals in the group who increased their AOC levels will have higher proportions of promoted individuals compared with those in the decreasing group.

### Person–job fit

Our following three hypotheses highlight elements of the work itself as predictors of changes in levels of commitment over time. It starts from the assumption that a significant part of the relationship that the individual develops with the organization is mediated by the nature of the work performed (cf. Humphrey, Nahrgang, & Morgeson, 2007). Note that job characteristics do not take into account how the job is actually designed, but how it is experienced by the employee. In order to obtain a sense of the relevant job characteristics specifically in the Brazilian work context, we first interviewed 18 individuals before the second assessment moment, which is approximately 1 year after organizational entry. In these interviews, we asked about job characteristics, group–leader relations, role states, justice, organizational support, and job satisfaction (conform the variables included in Mathieu & Zajac, 1990; Meyer et al., 2002). The selection of these interviewees resulted from an exploratory analysis of the results of the first data collection, which identified extreme cases of individuals with the highest and lowest levels of AOC. A triangulation of methods was used to maximize the quality and validity of the theoretical contributions made (Flick, 2009).

A common point among the interviewees was the sense that the alignment between their job and their capabilities was a very important aspect to determine how they would commit to the organization. To better understand this point, it is important to explain the context in which these statements were placed. Namely, newcomers into this Brazilian governmental organization would only be informed of their duties *after* entry into the organization. Only then, they would be informed of which department they would work in and what their activities would be. The allocation process was driven by an analysis of resumes completed by the candidates, but the matching was not always perfect.

Given this context and our theory, it is imperative to include *person–job fit* as a variable of interest. Person–job fit, in this context, refers to the degree of match between the training and capacity of the individuals on the one hand and the requirements of the tasks and responsibilities on the other hand. Thus, the variable refers to a specific type of person–job fit, known as demands–abilities fit (Kristof-Brown, Zimmerman, & Johnson, 2005). Even though person–job fit emphasizes the job — not the organization — as the focal point of interest, previous meta-analyses, nevertheless, show that person–job fit is an antecedent to organizational commitment (Mathieu & Zajac, 1990; Kristof-Brown et al., 2005). We believe this relationship exists because person–job fit enhances perceptions of congruence between the self and the task and facilitates experiences of mastery. In line with this reasoning, person–job fit does not only predict levels of commitment but also growth in newcomer commitment. Therefore, we expect the following:

*Hypothesis 2:* The individuals in the group who increased their AOC levels will perceive their jobs significantly more within their training and capability (i.e., higher person–job fit) than the individuals in the group who decreased their AOC levels.

### Job challenge

Another common point among the interviewees was the perception that the challenge a job offers was a very important aspect to determine how they would grow or decline in their commitment to the organization. Job variety is a component of the job characteristics model and assesses the degree to which the work is varied and challenging. The job characteristics model holds that job variety leads to need satisfaction not because of variety *per se*, but the responsibility and meaningfulness that are associated with it (Hackman & Oldham, 1976; Humphrey et al., 2007; Oldham & Hackman, 2010). There are a number of studies showing that, indeed, enriched and, therefore, challenging jobs are associated with higher levels of organizational commitment (e.g., Mathieu & Zajac, 1990; Steers, 1977; Stone & Gueutal, 1985).

Our interviewees seemed to be looking for intellectually stimulating work that is experienced as challenging. To better understand this statement, it is important to comment that the newcomers who we studied have passed a serious selection process with a very high degree of difficulty. In fact, the position these newcomers have succeeded to obtain is considered one of the best careers in the Brazilian government, with an average of

156 applicants per vacancy. This context favors high need for achievement individuals. We therefore expect that those newcomers who experienced a high job challenge will have increased their affective commitment over time.

*Hypothesis 3:* The individuals in the group who increased their AOC levels will perceive a greater job challenge than the individuals in the group who decreased their AOC levels.

### **Role overload**

Another common point among the interviewees was the notion that they were hindered to perform to the utmost of their abilities. Role overload factors (role ambiguity, role conflict, and role overload) are classic variables in discussions about straining work experiences (e.g., Crawford et al., 2010; LePine, et al., 2005; Meyer et al., 2002; Rizzo, House, & Lirtzman, 1970). Peterson et al. (1995) were one of the first to add the role overload variable to the more traditional role ambiguity and conflict constructs. Role overload refers to the individual's lack of personal resources needed to fulfill commitment, obligations, or requirements (Peterson et al., 1995, p. 430). The authors added the notion of "role overload" to these factors to aid its application in multicultural environments. In fact, they found that role ambiguity and overload were particularly prominent in countries with high power distance and collectivist values (which includes Brazil). Not surprisingly, role overload is associated with lower levels of commitment to the organization (Mathieu & Zajac, 1990; Meyer et al., 2002).

Because of the strong relationships of role overload with experiences of psychological health complaints (e.g., fatigue, exhaustion, job depression, and burnout; LePine et al., 2005), newcomers who experience role overload are more likely to lower their contributions out of self-protection. Further, they will be more likely to distance themselves from work and colleagues. With high levels of role overload, we therefore expect that affective commitment will decline.

*Hypothesis 4:* The individuals in the group who decreased their AOC levels will have perceived more role overload than the individuals in the group who increased their AOC levels.

### *Are growing trends displayed by different types of people?*

Personal characteristics have traditionally been regarded as antecedents of organizational commitment (Mathieu & Zajac, 1990; Meyer et al., 2002). The personal characteristics that are considered antecedents of AOC include age, gender, education, marital status, tenure, perceived personal competence, work values, and job level (Mathieu & Zajac, 1990). The demographic characteristics in our particular sample, however, limited our options for investigation. Because the newcomers entered the organization simultaneously for the same position, the education, tenure, and job level are the same for all individuals. Most individuals are male (73 per cent) and married (66 per cent). Considering this context, we focus specifically on the influence of age, which ranged from 26 to 64 years. As said before, the position these newcomers have succeeded to obtain is considered one of the best careers in the Brazilian government, which rules out perceived personal competence as a variable of interest. In fact, the selection processes to some careers in the Brazilian government had become so competitive that it is very common for people to leave their current jobs and become full-time students again with the main goal of passing the selection process. Some of these candidates are mainly attracted to the job security and the comparatively high earnings and were not particularly charmed by the organization or the work itself. With peripheral aspects work (job security, fixed pay, and high earnings) being the main driver for becoming employed for some (but not for others), we wondered if the value of work in life is a potential factor that might explain why some individuals beat the odds of declining commitment. For these reasons, we chose to examine work centrality as an additional personal characteristic.

### Older age

Previous research indicates that older employees have higher levels of AOC (Cohen & Lowenberg, 1990; Mathieu & Zajac, 1990; Meyer et al., 2002; Mowday et al., 1982; Steers, 1977). An important reason why age matters for growing commitment is that the organization is comparatively more important to older as compared with younger employees. We argue that this effect of older age will increase an individual's propensity to grow in his or her commitment. After all, if older employees are comparatively more loyal and attached to organizations, they would also react more strongly to positive organizational actions and positive work experiences. This expectation is corroborated by further meta-analytical evidence showing that older age is related to increased strength of security and social work motives, while younger age is related to the strength of growth motives; this meta-analysis also clearly showed a relationship between older age and intrinsic work motives (Kooij, de Lange, Jansen, Kanfer, & Dikkers, 2011).

On the negative side, there is strong meta-analytical evidence that older age buffers against negative experiences. Bal, De Lange, Jansen and Van der Velde (2008), for instance, showed that age moderated the relationship between psychological contract breach and commitment. Specifically, they found that older employees' affective commitment was not as strongly impacted by psychological contract breach. Another systematic review shows that older individuals have healthier coping styles: They are more likely to use problem solving and accommodative coping (i.e., adjusting by re-appraising a negative event in a more positive light) and are less likely to ruminate over their negative experiences (Conner-Smith & Flachsbart, 2007).

*Hypothesis 5:* The individuals in the group who increased their AOC levels will be significantly older than the individuals in the group who decreased their AOC levels over time.

### High work centrality

Work values are influential in the work setting, influencing the individual's work orientation and how she or he interprets the importance of work in his or her life (Sverko, 1989). Work centrality, thus, is the relative importance that work has compared to other interests (Buchholz, 1976; Dubin, 1956; Dubin, Champoux, & Porter, 1975; England, 1991; MOW, 1987; Paullay, Alliger, & Stone-Romero, 1994).

There is correlational evidence that AOC tends to be higher among individuals exhibiting higher levels of work centrality; the higher the importance attached to work, the more committed individuals become to the organization (Bastos, 1994; Dubin et al., 1975). Similar to the predicted effect of older age, work centrality may also increase an individual's propensity to grow in his or her commitment. There are several possible angles to think about such an effect. The first angle is that values are important pre-entry determinants of AOC (e.g., Lee et al., 1992; Morrow, 2011; Pierce & Dunham, 1987). Starting off with high work centrality gives commitment a good kick start in the socialization period, improving the chances of a high match scenario (Solinger et al., 2013) where newcomer commitment starts off high and then grows but slightly over time. The second angle is taken from Bergman et al. (2013) who suggested that growing or declining commitment would be determined by the perceived fit or misfit of events to the individual values. In particular, high work centrality individuals attach more value to positive, work-related experiences because of a higher fit with their work values and identity. They would also pay less attention to negative experiences, because that would not fit their self-perceptions. In other words, high work centrality individuals are motivated to keep a positive self-image by downplaying the role (or even the presence) of negative experiences. Hence, we expect that individuals who increased their AOC levels over time will attach higher values to work in their lives than those individuals who decreased their AOC levels.

*Hypothesis 6:* The work centrality of the individuals in the group who increased their AOC levels will be significantly greater than the work centrality of the individuals in the group who decreased their AOC levels over time.

## Method

### *Research context*

We collected data from new employees competitively selected for civil service positions in a Brazilian government agency. This agency is an autonomous federal institution created in 1964 and has approximately 4200 employees. This public sector agency has representatives in 10 Brazilian capital cities. We have chosen Brazil as an appropriate context for our study because Brazil represents one of the emerging economies in the world, with a large population. Moreover, the public sector was appropriate because this sector has many similarities across the world, and therefore, our results are likely to hold in different contexts. Because the organization where the current study was situated had multiple newcomers entering simultaneously for the same position and the same pay, we could therefore study organizational commitment changes across a larger sample of employees in a relatively uniform organizational context, hence controlling for other factors that could influence commitment changes, such as political and economic circumstances.

### *Sample and procedure*

The population consists of 361 newcomers, all of which were selected for the same position of “analyst” with the same selection process. The new employees joined the organization on approximately the same date. They were hired with an employment contract beginning in 2010 and subject to a probationary period. The survey length was chosen to cover the probationary period, which is 3 years. This is the mandatory term for Brazilian public civil servants to gain a permanent contract. The process of committing to an organization begins before an individual enters it, and develops slowly over the successive years of employment (Mowday et al., 1982). In accordance, we argue that the traditional time frame of 1 year or less is not sufficient to capture change in commitment over socialization stages (Van Maanen & Schein, 1979). So that the study of AOC change could be carried out in a comprehensive way, this longitudinal, within-subject study was initiated just prior to the individual’s entry into the organization and continued until they became permanent incumbents.

To ensure representative participation across multiple data collections and to avoid sample attrition, we elected to only conduct three assessments. The newcomers received an invitation to respond to the survey via email during the orientation before entry ( $t_1$  = Time 1), then approximately 1 year after entry ( $t_2$ ), and again approximately 3 years after entry ( $t_3$ ). Although the intervals were not identical across the three AOC assessments, they were identical within individuals, a condition that is necessary for the LGM approach (Kline, 2011). The invitation email included a brief description of the study and included an external link to the questionnaire. The text emphasized that it was a survey independent of the organization and conducted under academic supervision with the responsible researchers identified. Participation in the study was voluntary, and confidentiality was formally guaranteed. The emails were individually customized with a different link for each participant. The identification of the respondents made it possible to merge the results. After completing the data collection, respondents were coded numerically. The respondent did not have access to the responses from previous waves.

The first survey was completed by 335 newcomers (93 per cent response rate), 251 completed the first and second waves (70 per cent response rate), and 202 newcomers participated in all three surveys. The analyses concerning the change in AOC were performed using data from respondents who totally completed all surveys. We excluded eight incomplete cases. The final sample was composed by 194 individuals (54 per cent response rate). Comparing the demographic characteristics of the sample with the population showed a close match. Twenty-four employees left the organization (7 per cent) during the period of study, three were temporarily transferred to another public agency, and one passed away. The mean age of the respondents was 36.7 years ( $SD=7.8$ ), 27 per cent were female, 34 per cent were single, and 100 per cent were Brazilian. The age ranged from 26 to 64 years. We conducted analyses to



investigate the possibility of attrition bias. A comparison of the participants who participated in the full study with those who stopped did not reveal any significant differences in demographic characteristics or outlying responses in the resultant sample. We concluded that respondent attrition did not appear to create any type of bias affecting the variables used in this study.

## Measures

### Organizational commitment

Affective organizational commitment was operationalized using an instrument composed of four items from the OCQ (Mowday et al., 1979) and three items from the Affective Commitment Scale (ACS) (Meyer, Allen, & Smith, 1993). The items from OCQ are “This organization really inspires the very best in me in the way of job performance,” “I find that my values and the organization’s values are very similar,” “I pitch this organization to my friends as a great place to work,” and “I am proud to tell others that I am part of this organization.” The items from ACS are “I really feel as if these organization’s problems are my own,” “This organization has a great deal of personal meaning for me,” and “I feel emotionally attached to this organization.”

It is noteworthy that the instrument used in this study is the result of a research effort that has been carried out in the Brazilian context since 1989, when Borges-Andrade, Afanasieff and Silva (1989) translated and adapted the OCQ for Brazil. Then, Medeiros and Enders (1998) translated and adapted the ACS for Brazil. The strategy of composition of a general measure of affective commitment was adopted in Brazil initially by Bastos (1994). Based on the years of study and research until 2007, Brazilian researchers led by Bastos (1994) and others brought items belonging to the OCQ and ACS scales so as to create a single and stronger measure for AOC. These measures began to be systematically applied in the Brazilian research community. One of the major validation studies relied on a sample of 1989 workers in primary sector companies, that is, agriculture, forestry, fishing and mining (27.7 per cent), secondary sector, that is, production and construction (44.6 per cent), and tertiary sector in the economy, that is, service sector (27.7 per cent) of several regions of Brazil, with different cultural features (Menezes, 2009).

Affective organizational commitment was assessed at times 1, 2, and 3 using a Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach’s alphas for AOC at times 1, 2, and 3 had the same value of 0.89. In the exploratory factor analyses, all seven items loaded significantly on a single latent variable. To confirm construct validity, confirmatory factor analyses of data were performed using AMOS 21. The model indicated a good fit for AOC scale at time 1,  $\chi^2(12) = 29.78$ ,  $p = .003$  (comparative fit index (CFI) = 0.97, normal fit index (NFI) = 0.96, and root mean square residual (RMR) = 0.02), at time 2,  $\chi^2(12) = 44.60$ ,  $p < .001$  (CFI = 0.95, NFI = 0.93, and RMR = 0.04), and at time 3,  $\chi^2(12) = 49.65$ ,  $p < .001$  (CFI = 0.95, NFI = 0.93, and RMR = 0.05).

### Work experiences

We evaluated work experiences at time 2. Promotion is operationalized as an event where the employee is assigned to a leadership or advisory position in the organization. Further, the event of *promotion* must affect employee’s position in the status hierarchy. The employees selected to occupy managerial or advisory positions receive compensation, recognition, and status. Promotion was assessed objectively. We coded promotion dichotomously, based on whether the employee was advanced after the first year of employment in the organization.

As said, the relationship between job characteristics and AOC has previously been tested and validated in the Brazilian work context by Bastos (1994; who himself worked in the tradition of Rizzo et al., 1970). He identified three relevant job characteristics dimensions in Brazil: person–job fit, role overload, and job challenge. Person–job fit, role overload, and job challenge relied on employees’ perceptions and were assessed at time 2 using a Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The applied items were previously subjected to analysis by three judges, who were invited to theoretically analyze the items constructed in terms of reliability, validity, and

operability. We then applied these three items to 10 employees who were not participating in the study, and after 2 weeks, we applied the same questions to the same individuals. The test–retest reliabilities for the items were person–job fit, 0.92; role overload, 0.91; and job challenge, 0.94.

The employees were asked to rate how much they agree with the statements. The items used were translated and adapted to Brazil from validated scales by Rizzo et al. (1970) and Sims, Szilagyi and Keller (1976). The items were tested and validated in Brazil first by Bastos (1994). *Person–job fit* assesses the training and capacity of the individuals in the field of their work: sample item for person–job fit: “My job is within my training and capability,” and item referring to *job challenge*: “My job is intellectually stimulating.” *Role overload* was assessed by including traditional items of workload as used by Bateman and Strasser (1984), Mathieu (1988), and Mathieu and Hamel (1989): the item for role overload: “I have just the right amount of work to do” (reverse coding). Note that we reverse coded the scores on this item in order to obtain measures of role overload.

### Work centrality

Work centrality was only evaluated at time 1. Work centrality was assessed asking the participants to assign 100 points, in any combination, across five different spheres of life: family, work, leisure, community, and religion (MOW, 1987). Comparing point assignment across these five areas, the number of areas compared with which work received more points generated a score ranging from 0 to 4. They were also asked to indicate on a 3-point scale the general importance of work in their lives (MOW, 1987). The indicator of work centrality was calculated by the sum of the general score and the comparative score and resulted in a single variable ranging from 1 to 7.

### Job performance

Our measure of job performance was based on subjects’ self-ratings (single item) regarding to the elements of “productivity” and “initiative.” The measure was taken at time 3 using a Likert scale ranging from 1 = *very poor* to 4 = *very good*. The same test–retest procedure was applied to the items of job performance, and the test–retest reliabilities were productivity, 0.84; and initiative, 0.76.

### Data analysis strategy

We applied latent growth curve modeling (LGM) using structural equation modeling with Amos Version 21 to test the hypotheses (Duncan, Duncan, & Strycker, 2006). This technique is useful in capturing the dynamics of change in AOC (Vandenberg & Stanley, 2009; Meyer, Jackson, & Maltin, 2008). The fundamental difference between other traditional longitudinal techniques and the LGM approach is that change itself is captured as a latent variable and the variance between individuals is examined. The LGM approach gives access to both individual and group changes and enables the study of the effects of independent variables on change (Schumacker & Lomax, 2010; Vandenberg & Stanley, 2009). To test the longitudinal measurement invariance of the AOC measure, we compared the three measures with the factor loadings constrained to be equal over time. We verified whether the standardized regression weight linking the predictor and latent variable of change was significant using LGM.

To test hypotheses, we calculated the value of the latent variable of change for each individual using LGM. We then partitioned the sample into three groups: individuals with negative, positive, and zero time parameters. There could be some individuals who increased and then decreased their AOC levels, or vice versa (e.g., in a parabolic trajectory). In this case, they were classified in the group that represents their prevailing direction of change. That is, if an individual decreased his or her AOC level more than increased, considering the whole period, she or he would have a negative latent variable of change, and she or he would be in the group of decreasing commitment. Zero time parameters were established while assuming a 98 per cent confidence interval around zero. Note that this is a rather strict assumption and implies a conservative testing of our hypotheses.

The resulting categories of growth ( $N=64$ ), stability ( $N=10$ ), and decline ( $N=120$ ) are the most theoretically interesting considering our research question. That is, this paper’s main research question is to examine which factors

explain growth even though the odds are clearly in favor of decline in commitment. We added the stable group as an extra category to allow supplementary test on the robustness of the expected effects. For instance, we could test for differences between increasing and decreasing groups but also explore the differences between stable and increasing, and stable and decreasing commitment groups. Probing into more than three categories (e.g., multiple types growth) is possible but would make for an unnecessarily complicated argument given our theoretical emphasis on explaining (only the) the differences between growing and declining commitment. In fact, we would have nine categories, with the smallest category formed by four individuals and the largest formed by 52. For a paper on multiple types of (curvilinear) commitment trajectories, see Solinger et al. (2013). Further, modeling the data according to curvilinear trajectories creates just identified trajectories, which brings with it the danger of over-fitting. For instance, unless the three time points are neatly fitted on a linear trajectory, the curvilinear trajectory would quite drastically change its pathway if we were to remove just one of the time points. Curvilinear trajectories are more reliably estimated with (at least) four time points. Finally, we used *t*-tests to compare predictors' means between the group of individuals who increased versus decreased, increased versus stabilized, and decreased versus stabilized their AOC levels over time.

## Results

### *Preliminary analyses*

Table 1 reports descriptive statistics, correlations, and Cronbach's alphas for scales.

We started the analyses by verifying the longitudinal measurement invariance of the AOC measure (Vandenberg & Lance, 2000). We confirmed the configural and metric invariance for the AOC scale over time. The chi-square difference test, comparing the three measures with the factor loadings constrained to be equal over time, was not significant ( $\Delta\chi^2 = 16.679$ ,  $\Delta df = 14$ ,  $p = .274$ ). We therefore concluded that the measures could be considered invariant over time.

### **Main effects: predicting change in affective organizational commitment**

We then entered the three AOC measures into a basic LGM model, and we found as LGM parameter estimates an initial status mean of 4.281, with a variance of 0.194, both  $p < .000$ , meaning that there were significant differences between individuals' AOC values at the initial observation. The latent variable of change was  $-0.139$ ,  $p < .000$ , indicating that AOC decreased by 0.139 per year on average. The variance was 0.009, not significant ( $p < .140$ ). The covariance between the initial status and the variable of change was 0.019, not significant ( $p < .070$ ). This covariance indicates that the initial level and the rate of change over times 2 and 3 were unrelated: individuals with high and low starting levels were equally likely to change in commitment.

We found significant standardized regression weights explaining growth in commitment for promotion ( $\beta = .414$ ,  $p < .05$ ), person–job fit ( $\beta = .537$ ,  $p < .001$ ), job challenge ( $\beta = .601$ ,  $p < .001$ ), and role overload ( $\beta = -.654$ ,  $p < .001$ ), which confirms the general line of expectations that all these predictors are predictive of change in AOC. Although these results are a necessary first step, they are not sufficient to support whether these factors relate differently to stabilizing, growing, and declining trajectories of AOC. The results of these main effects can be inspected in Table 2.

The standardized regression weights between the latent variable of change and productivity and initiative were  $\beta = .151$ ,  $p < .05$  and  $\beta = .175$ ,  $p < .05$ , respectively. This means that *change* in commitment had a significant impact on the (self-reported) levels of productivity and initiative at work.

Table 1. Means, standard deviations (SD), and correlations.

Correlations	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. AOC (t1)	4.26	0.60	(.89)											
2. AOC (t2)	4.17	0.69	.52**	(.89)										
3. AOC (t3)	3.85	0.74	.50**	.66**	(.89)									
4. Age (t1)	36.73	7.80	.15*	.22**	.24**									
5. Gender (t1)	0.73	—	-.09	.06	-.02	.15*								
6. Work centrality (t1)	5.13	1.14	.18*	.20**	.14	.11**	-.05							
7. Promotion (t2)	0.21	0.41	-.06	-.04	.03	-.01	.03	-.03						
8. Person-job fit (t2)	3.07	0.86	.04	.29**	.25**	-.02	.02	.08	.11	(.92)				
9. Role overload (t2)	2.90	0.75	-.16*	-.37**	-.37**	-.05	.01	-.08	-.05	-.52**	(.91)			
10. Job challenge (t2)	3.15	0.78	.17*	.41**	.36**	.04	.01	.10	.10	.54**	-.42**	(.94)		
11. Productivity (t3)	3.32	0.44	.21**	.19**	.21**	-.03	-.12	-.09	.22**	.14*	-.17*	.15*	(.84)	
12. Initiative (t3)	3.13	0.58	.21**	.26**	.23**	-.08	.09	.07	.26**	.12	-.14	.19**	.38**	(.76)

Note: “t” before a number indicates “Time” (e.g., t1 = Time 1). N(t1) = 307, N(t2) = 240, N(t3) = 233, N(t1\_t2) = 240, N(t1\_t3) = 233, N(t2\_t3) = 197. AOC is expressed on a 5-point scale; age is expressed in years; gender: 0 = woman, 1 = man, 73% are male; work centrality is expressed on a 7-point scale; promotion is a dummy variable; 21% were promoted; variables 8, 9, and 10 are expressed on a 5-point scale, and variables 11 and 12 are expressed on a 4-point scale.

AOC, affective organizational commitment.

\* $p < .05$ ; \*\* $p < .01$ . Coefficient alpha is on the diagonal.

Table 2. Regression weights between predictors, initial status and change in AOC.

Predictors	Standardized regression weights	
	Initial status of AOC	Latent variable of change in AOC
Personal characteristics		
Age	.274**	.376**
Gender	-.023	.053
Work centrality	.288***	.089
Work experiences		
Promotion		.417*
Person–job fit		.537***
Role overload		-.654***
Job challenge		.601***
Consequences		
Productivity		.151*
Initiative		.175*

Note: AOC, affective organizational commitment.

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

Table 3. Comparisons between AOC trajectory groups and *post hoc* tests.

Covariates				<i>t</i> -tests mean difference ( $\Delta M$ ) between groups		
	A. Increasing AOC $N=64$	B. Stable AOC $N=10$	C. Decreasing AOC $N=120$	A–B	A–C	B–C
Personal factors						
Age	38.89 (9.0)	35.20 (6.8)	35.71 (7.0)	3.69	3.18**	-0.51
Work centrality	5.13 (1.1)	5.30 (1.2)	5.12 (1.2)	-0.17	0.01	0.18
Work experiences						
Promotion	0.28	0.50	0.15	-0.22	0.13*	-0.35**
Person–job fit	3.38 (0.97)	3.10 (0.99)	2.90 (0.74)	0.27	0.48***	-0.20
Job challenge	3.53 (0.84)	3.10 (0.57)	2.95 (0.68)	0.43	0.58***	-0.15
Role overload	2.61 (0.79)	2.21 (0.79)	3.05 (0.70)	-0.40	-0.44**	-0.84***
Job performance						
Productivity	3.43 (0.39)	3.33 (0.43)	3.24 (0.51)	0.10	0.19*	-0.09
Initiative	3.31 (0.55)	3.03 (0.51)	3.02 (0.60)	0.28	0.28**	-0.01

Note: Predictor means are reported for the three groups. Standard deviations appear in parentheses. Promotion is a discrete event, that is, a dummy variable; the results for this variable are based on frequencies.

AOC, affective organizational commitment.

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

### Hypotheses testing

We predicted that growth and decline may be explained through qualitatively different work experiences. Table 3 reports the results of the comparison of work experiences and personal factors between three groups: growing, stable, and declining commitment. The first group is composed of individuals who increased their AOC levels over time,  $N=64$ , 33 per cent of the sample. For this group, the mean of the initial status was 4.46, and the mean of

the latent variable of change was .053. The second group is composed of individuals who decreased their AOC levels over time,  $N=120$ , 62 per cent of the sample. This group had an initial status mean of 4.174, and the mean of the latent variable of change was  $-.247$ . The third group of individuals did not change their AOC levels at all,  $N=10$ , 5 per cent of the sample. This group had an initial status mean of 4.283, and the mean of the latent variable of change was 0 (with a 98 per cent confidence interval around it).

As for *job promotion*, we expected to find significant differences in average frequency between the increasing and decreasing groups (hypothesis 1). Supporting our hypothesis, we found a significant difference between the increasing and decreasing groups ( $\Delta M=0.13, p < .05$ ). Hypothesis 1 is supported. We also found a significant difference between the stable and decreasing groups ( $\Delta M=-0.35, p < .01$ ; Table 3). We thus found significant differences in average frequency between the decreasing and other two groups, which means that *not* receiving a job promotion explains declining levels of commitment. Nevertheless, we found no significant differences between the increasing and stable groups ( $\Delta M=-0.22, ns$ ). This means that receiving the promotion contributes to explaining growth only partially.

As for *person–job fit*, we expected to find significant differences in average levels of person–job fit between the increasing and decreasing groups (hypothesis 2). The results supported our expectations ( $\Delta M=0.48, p < .001$ ). Therefore, hypothesis 2 is supported. The differences of the increasing and decreasing commitment groups in comparison with the stable group were about equal ( $\Delta M=0.27$  and  $-0.20, ns$ ; Table 3). This means that person–job fit contributes equally to explaining growth as well as decline in commitment.

As for *job challenge*, we expected to find significant differences in average job challenge between the increasing and decreasing groups (hypothesis 3). In line with hypothesis 3, the differences between the increasing and decreasing groups reached significance ( $\Delta M=0.58, p < .001$ ). Further, the difference was greater comparing the increasing group with the stable group ( $\Delta M=0.43, ns$ ) than comparing the decreasing group with the stable group ( $\Delta M$  is only 0.15,  $ns$ ). However interesting, these differences were not significant.

As for *role overload*, we expected to find significant differences in average role overload between the decreasing and increasing groups (hypothesis 4). The results provide support for these expectations. Namely, the differences in average levels of role overload between the decreasing and other groups were significant ( $\Delta M=-0.84, p < .001$  and  $-0.44, p < .01$ ), while the difference between the increasing and stable groups ( $\Delta M=-0.40, ns$ ) was not. This means that role overload contributes a great deal in explaining the decline in commitment and does comparatively less explaining the growing commitment. Hypothesis 4 is therefore supported.

As for age, we expected that older newcomers would be more prominent among growing AOC trajectories (hypothesis 5). The results reveal that age is a significant predictor of the time parameter ( $\beta=.376, p < .01$ ) and that older newcomers were indeed more frequent in the increasing commitment group compared with the decreasing group ( $\Delta M=3.18, p < .01$ ). Hypothesis 5 is supported.

As for *work centrality*, we expected high work centrality individuals to be more prominent in the growing commitment group (hypothesis 6). The results, however, reveal that work centrality is a significant predictor of the initial level of AOC ( $\beta=.288, p < .001$ ), but not of the time parameter ( $\beta=.089, ns$ ). Thus, work centrality explains *levels* of commitment, but not *change* in commitment. Further, we did not find that high work centrality newcomers would be more prominent in growing AOC trajectories ( $\Delta M=0.01, ns$ ; Table 3), which means that hypothesis 6 is not supported.

We also explored whether there were any noteworthy differences in average levels of productivity and initiative for the increasing and decreasing groups. The differences between the increasing and decreasing commitment groups were statistically significant for productivity ( $\Delta M=0.19, p < .05$ ) and initiative ( $\Delta M=0.128, p < .01$ ).

## Discussion

Previous studies on newcomer socialization have evidenced quite systematically that newcomers' affective commitment tends to decline over time. Indeed, our sample of Brazilian newcomers in a governmental organization

( $N = 194$ ) shows that this rule holds for 62 per cent of the newcomers. Despite this prevalence of declining commitment, 33 per cent of the newcomers displayed *growth* even if the odds are clearly in favor of decline. Only 5 per cent of the trajectories remained stationary over time. The fact that we found different subpopulations of declining, growing, and stable trajectories corroborates the earlier finding by Solinger et al. (2013). In an attempt to account for this disparity in commitment dynamics, we investigated the possibility that growth and decline may be explained by a distinct set of work experiences and/or personal factors.

As for work experiences, person–job fit and job challenge explained growth and decline in commitment rather well. About the variable of promotion, interestingly, the highest average frequency of promoted individuals was noted in the stable (not in the increasing) commitment group. Receiving the (desired or expected) promotion did not seem to distinguish well between stable and growing commitment trajectories. Thus, *not* getting promoted seems to act as a straining factor that incurs declining commitment. Our data are suggestive of an effect where a negative factor such as role overload gains relevance when explaining *declining* commitment. In particular, those being overwhelmed by the requirements of the new role (high role overload) were more prominent among declining commitment trajectories. This is suggestive of a strong moderation effect where high or low levels of a predictor have differential effects on change in commitment.

Clearly, this one study is insufficient to place grand conclusions and warrants replication. Also, the particularly small size of the stable group (5 per cent) warrants caution in interpreting the supplementary analyses. Future attempts to replicate this observation may benefit from research on normalization, which is a phenomenon where the extraordinary is rendered as seemingly ordinary (Ashforth & Kreiner, 2002). The degree to which a work experience is perceived as highly positive or negative (versus neutral) will depend on the degree to which the individual is habituated and desensitized to that particular stimulus. Some of the findings may also be explained by the peculiarities of our research context. For instance, in our sample where newcomers still had to be assigned to a job, we expect that individuals would be especially disappointed after finding out that they are not working in the field that swayed them to join the organization in the first place. This explains our finding that low levels of person–job fit will make for declining commitment just as high levels of fit make for growing commitment. In our particular sample that consisted of high achievers who made it through a fierce selection procedure, normalization may provide a useful explanation. High need for achievement individuals may have become used to the idea of succeeding in life. If success is normalized in that way, not obtaining the desired promotion is not interpreted neutrally, but instead as an instance of negative feedback and personal failure. In other words, among individuals for whom success (such as getting promoted) is normal, factually reaching this level of success feels like an ordinary day on the job, while not reaching this level of success feels like a negative work experience.

In sum, all the work experiences (job promotion, job challenge, person–job fit, and role overload) that yielded significant correlations in previous cross-sectional research (Meyer et al., 2002) have shown their relevance in explaining change in commitment. This finding makes theoretical sense: work experiences generally do well explaining someone's history of change in commitment over time, while personal factors (such as older age) may, or may not, increase an individual's *propensity* for change. As for personal factors, we found that older aged newcomers (but not those with high work centrality) were more likely to show growing commitment. Our study reveals that longitudinal research designs are useful for performing more sophisticated analyses on commitment's predictors. Most of us are aware of the fact that correlations (obtained from cross sections) do not necessarily hold up in the temporal domain. This statement proved true for work centrality. While this variable was highly related to the initial level of commitment, it did not explain subsequent change in commitment. Our results supported the notion that older age enhances newcomers' propensities for growing commitment. This finding extends to the literature on commitment propensity (e.g., Lee et al., 1992; Pierce & Dunham, 1987). Commitment propensity is currently known as a summary concept that comprises a set of variables that collectively determine the likelihood of aspirant organizational members to form stable commitments. It comprises variables such as value congruence, prior work experiences, personal characteristics (e.g., self-efficacy), and aspects of decision making that influenced the choice for this particular organization (Lee et al.,

1992). Our results speak to this research in two ways. First, stability in commitment is not the only valid criterion to assess the utility of commitment propensity; increasing commitment is at least as interesting and important as a criterion given our finding that change in commitment proved valuable for explaining (self-reported) job performance. The fact that it is important to distinguish stability from growth in commitment is underlined by the finding that work centrality was highly related to the initial level of commitment but did not explain subsequent change in commitment. Second, older age should be included in the mix of variables that make up the propensity for growing commitment. Establishing a mix of “growth propensity” variables in future research efforts (e.g., older age and growth need strength) might prove highly relevant for recruitment and selection scholars and practitioners. Moreover, our findings disprove the widely held stereotypes that younger recruits should always be preferred over older ones.

Finally, change in commitment proved significant for explaining self-reported job performance. Although only the differences between declining and growing commitment trajectories proved significant, the data revealed an interesting trend that job initiative would be more responsive to growing than to declining commitment. This would imply that proactive behavior is relatively stable under neutral and negative circumstances but may gain prevalence with rising commitment levels. This is an interesting finding that warrants replication.

### *Limitations*

The findings of this study provide another foothold for disentangling the various predictors of change in organizational commitment. While change in commitment may be due to a wide range of circumstances, our sample is rather homogeneous. The Brazilian newcomers who participated in this study were entering the same organization simultaneously, for the same position and the same pay, with similar qualifications, and all to work in urban locations. This may have influenced our findings, such as the fact that not receiving a job promotion turned out to explain decline in commitment. Further research with appropriate longitudinal research designs is needed to extend these results across contexts.

Further, we emphasize that predicting change in AOC levels is more complex than we have currently suggested. Person–job fit is a dynamic construct and so are job challenge and role overload (Oldham & Hackman, 2010). Yet we have measured them only once (at time 2), thus assuming relative stability in these variables. Future research may be designed in such a way that one allows for capturing change in predictors as well.

Another limitation is that our measure of job performance was single-item and based on self-reports. Although self-reported measures of performance are not uncommon in the commitment literature, we realize that self-reported measures of performance are sensitive to self-serving bias and may, or may not, correlate with objective performance. In our sample, we do find that these self-reported measures are significantly correlated with job promotion, which is an objective measure (productivity:  $r = .22$ ,  $p < .01$ ; initiative  $r = .26$ ,  $p < .01$ ). Future research, however, will want to calibrate these effects with other performance measures and with multi-item scales, such as objective measures (e.g., output counts), client ratings, and supervisor ratings.

Finally, we have applied a rather strict statistical criterion (98 per cent confidence interval for the zero time parameter) for assessing which individuals would belong to the stable group and which do not. Such a confidence interval is crucial because one would otherwise assign an individual to the substantive increasing or decreasing group, while this may originate simply from noise or error in the time parameter estimates. A 98 per cent confidence interval implies a rather conservative test of our hypotheses but was warranted in our case. After all, by expanding the confidence interval to 95 per cent, we would have risked dismissing small but substantively meaningful change as “error.”

Relatedly, we have artificially created the increasing, stable, and decreasing groups based on the estimated latent variable of change, which was the most effective and parsimonious analytical strategy given our research problem. Note, however, that our results do not show whether these groups are indeed the most prevalent trajectory types in newcomer commitment. In future studies, such knowledge about trajectory types is best tested



with other types of analyses, such as latent class growth modeling (Solinger et al., 2013) or growth mixture modeling.

## Conclusion

Our study has strengthened the idea that newcomer commitment is quite easily lost (62 per cent showed decline) but can also be raised against the odds (in 33 per cent of the cases).

In our attempt to explain growing of commitment, we investigated the possibility that growth and decline in commitment may be explained by qualitatively different factors. We found some support for this notion: negative factors (like role overload, or *not* obtaining the desired promotion) indeed had low relevance for explaining growing commitment but gained relevance for predicting declining commitment. Carefully matching persons to the job and offering challenging tasks seem extra important because these factors explain both growth and decline in commitment. Finally, growth and decline in newcomer commitment is relevant for organizations and their recruiters because they are predictive of employees' job performance (productivity and initiative). All in all, the results show once again that commitment is a dynamic phenomenon (only 5 per cent had stable trajectories) and that there is still much to be learnt in our attempts to predict it.

## Acknowledgements

This work was supported by the Coordination for the Improvement of Higher Education Personnel (CAPES), under grant 9480/12-9. This work was also supported by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) under grant 476160/2011-1. Part of this research was also made possible by a VENI-grant awarded by the Dutch National Science Academy (NWO) to the third author, under grant 451-13-032. We are grateful to the reviewers whose constructive comments strengthened this paper, and we are especially thankful to Professor Howard J. Klein, Chair of the 2014 Conference on Commitment. The views expressed in this paper are those of the authors and are not necessarily reflective of views at the Central Bank of Brazil.

## Author biographies

**Leticia Maia** is an associate researcher at Federal University of Bahia and an analyst at Central Bank of Brazil. Her research interests are change in organizational behavior-related concepts, people engagement and commitment, the impact of organizational change on employee behavior and organizational performance, business strategy, project and process management.

**Virgilio Bastos** is a professor at Federal University of Bahia and a coordinator of the Psychology Area at the Coordination for the Improvement of Higher Education Personnel in Brazil. His PhD is in psychology, from University of Brasília. His research interests are commitment, organizational changes, and organizational cognition.

**Omar Solinger** is an assistant professor of organizational behavior at VU University Amsterdam. He is broadly interested in developing (process) theory about change in organizational behavior-related concepts. His current interests involve construct development, the impact of organizational change on employee attitudes behavior and leadership (e.g., charisma).

## References

- Ashforth, B. E. (2012). The role of time in socialization dynamics. In C. Wanberg (Ed.), *The Oxford handbook of socialization*. New York: Oxford University Press.
- Ashforth, B. E., & Kreiner, G. E. (2002). Normalizing emotion in organizations: Making the extraordinary seem ordinary. *Human Resource Management Review*, 12(2), 215–235.
- Bal, P. M., De Lange, A. H., Jansen, P. G. W., & Van der Velde, M. E. G. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behavior*, 72, 143–158.
- Bastos, A. V. B. (1994). Comprometimento no trabalho: A estrutura dos vínculos do trabalhador com a organização, a carreira e o sindicato. Unpublished Doctoral Dissertation, University of Brasília, Brasília, DF.
- Bateman, T. S., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal*, 27, 95–112.
- Beck, K., & Wilson, C. (2000). Development of affective organizational commitment: A cross-sequential examination of change with tenure. *Journal of Vocational Behavior*, 56, 114–136. 10.1006/jvbe.1999.1712.
- Becker, T. E., Ullrich, J., & Van Dick, R. (2013). Within-person variation in affective commitment to teams: Where it comes from and why it matters. *Human Resource Management Review*, 23(2), 131–147.
- Bentein, K., Vandenberg, R. J., Vandenberghe, C., & Stinglhamber, F. (2005). The role of change in the relationship between commitment and turnover: A latent growth modeling approach. *Journal of Applied Psychology*, 90(3), 468–482. 10.1037/0021-9010.90.3.468.
- Bergman, M. E., Benzer, J. K., Kabins, A. H., Bhupatkar, A., & Panina, D. (2013). An event-based perspective on the development of commitment. *Human Resource Management Review*, 23, 148–160. 10.1016/j.hrmr.2012.07.005.
- Borges-Andrade, J. E., Afanasief, R. S., & Silva, M. S. (1989). Mensuração de comprometimento organizacional em instituições públicas. In: *Reunião anual de psicologia*, 19, 1989, Ribeirão Preto. Anais... Ribeirão Preto: Sociedade de Psicologia de Ribeirão Preto, 236.
- Boswell, W. R., Shipp, A. J., Payne, S. C., & Culbertson, S. S. (2009). Changes in newcomer job satisfaction over time: Examining the pattern of honeymoons and hangovers. *Journal of Applied Psychology*, 94(4), 844.
- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 19, 533–546.
- Buchholz, R. A. (1976). Measurement of beliefs. *Human Relations*, 29(12), 1177–1188.
- Chen, G., Ployhart, R. E., Thomas, H. C., Anderson, N., & Bliese, P. D. (2011). The power of momentum: A new model of dynamic relationships between job satisfaction change and turnover intentions. *Academy of Management Journal*, 54(1), 159–181.
- Cohen, A., & Freund, A. A. (2005). Longitudinal analysis of the relationship between multiple commitments and withdrawal cognitions. *Scandinavian Journal of Management*, 21, 329–351. 10.1016/j.scaman.2004.06.004.
- Cohen, A., & Lowenberg, G. (1990). A reexamination of the side-bet theory as applied to organizational commitment: A meta analysis. *Human Relations*, 43(10), 1015–1050. 10.1177/001872679004301005.
- Conner-Smith, J. K., & Flachsbart, C. (2007). Relations between personality and coping: A meta-analysis. *Journal of Personality & Social Psychology*, 93, 1080–1107.
- Costa, F. M., & Bastos, A. V. B. (2013). Transformações em organizações de fruticultura irrigada e a dinâmica do comprometimento organizacional. *REAd, Edição*, 76(3), 675–708.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834.
- Cropanzano, R., James, K., & Konovsky, M. A. (1993). Dispositional affectivity as a predictor of work attitudes and job performance. *Journal of Organizational Behavior*, 14, 595–606. 10.1002/job.4030140609.
- Dubin, R. (1956). Industrial workers' world: A study of the 'central life interests' of industrial workers. *Social Problems*, 3, 131–142.
- Dubin, R., Champoux, J. E., & Porter, L. W. (1975). Central life interest and organizational commitment of blue-collar and clerical workers. *Administrative Science Quarterly*, 20, 411–421. 10.2307/2392000.
- Duncan, T. E., Duncan, S. C., & Strycker, L. A. (2006). *An introduction to latent variable growth curve modeling* (2nd ed., ). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Earl, J. K., & Bright, J. E. H. (2007). The relationship between career decision status and important work outcomes. *Journal of Vocational Behavior*, 71(2), 233–246. doi: 10.1016/j.jvb.2007.05.003
- England, G. W. (1991). The meaning of working in the USA: Recent changes. *European Work and Organizational Psychologist*, 1, 111–124.
- Farkas, A. J., & Tetrick, L. E. (1989). A three-wave longitudinal analysis of the causal ordering satisfaction and commitment on turnover decisions. *Journal of Applied Psychology*, 74(6), 855–868. doi: 10.1037/0021-9010.74.6.855
- Farrel, D., & Petersen, J. C. (1984). Commitment, absenteeism and turnover of new employees: A longitudinal study. *Human Relations*, 37, 681–692.

- Feldman, D. C. (1981). The multiple socialization of organization members. *Academy of Management Review*, 6(2), 309–318.
- Flick, U. (2009). *Qualidade na pesquisa qualitativa*. Porto Alegre: Artmed.
- Gaertner, K., & Nollen, S. (1989). Career experiences, perceptions of employment practices, and psychological commitment to the organisation. *Human Relations*, 42, 975–991.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250–279.
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49(2), 305–325.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279.
- Harter, J. K., Schmidt, F. L., Asplund, J. W., Killham, E. A., & Agrawal, S. (2010). Causal impact of employee work perceptions on the bottom line of organizations. *Perspectives on Psychological Science*, 5(4), 378–389.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92, 1332–1356.
- Johnston, M. W., Griffeth, R. W., Burton, S., & Carson, P. P. (1993). An exploratory investigation into the relationships between promotion and turnover: A quasi experimental longitudinal study. *Journal of Management*, 19(1), 33–49. doi: 10.1177/014920639301900103
- Kammeyer-Mueller, J. D., Wanberg, C. R., Glomb, T. M., & Ahlburg, D. (2005). The role of temporal shifts in turnover processes: it's about time. *Journal of Applied Psychology*, 90(4), 644–658.
- Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, target-free approach. *Journal of Applied Psychology*, 99, 222–238.
- Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012). Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *Academy of Management Review*, 37, 130–151.
- Klein, H. J., Molloy, J. C., & Cooper, J. T. (2009). Conceptual foundations: Construct definitions and theoretical representations of workplace commitments. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.). *Commitment in organizations, accumulated wisdom and new directions*. New York: Routledge.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed., ). New York: Guilford Press.
- Kooij, D. T. A. M., De Lange, A. H., Jansen, P. G. W., Kanfer, R., & Dikkers, J. S. E. (2011). Age and work-related motives: Results of a meta-analysis. *Journal of Organizational Behavior*, 32, 197–225. 10.1002/job.665.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit. *Personnel Psychology*, 58(2), 281–342.
- Lance, C. E., Vandenberg, R. J., & Self, R. M. (2000). Latent growth models of individual change: The case of newcomer adjustment. *Organizational Behavior Human Decision Processes*, 83(1), 107–140. 10.1006/obhd.2000.2904.
- Lee, T. W., Ashford, S. J., Walsh, J. P., & Mowday, R. T. (1992). Commitment propensity, organizational commitment, and voluntary turnover: A longitudinal study of organizational entry processes. *Journal of Management*, 18(1), 15–32.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764–775.
- Levy, P. E., & Williams, J. R. (1998). The role of perceived system knowledge in predicting appraisal reactions, job satisfaction, and organizational commitment. *Journal of Organizational Behavior*, 19, 53–65. doi: 10.1002/(SICI)1099-1379(199801)
- Louis, M. R. (1980). Surprise and sense making: What newcomers experience in entering unfamiliar organizational settings. *Administrative Science Quarterly*, 25(2), 226–251.
- Maier, G. W., & Brunstein, J. C. (2001). The role of personal work goals in newcomers' job satisfaction and organizational commitment: A longitudinal analysis. *Journal of Applied Psychology*, 86(5), 1034–1042. doi: 10.1037/0021-9010.86.5.1034
- Mathieu, J. E., & Hamel, K. (1989). A causal model of antecedents of organizational commitment among professionals and non-professionals. *Journal of Vocational Psychology*, 34, 299317.
- Mathieu, J. E. (1988). A causal model of organizational commitment in a military training environment. *Journal of Vocational Psychology*, 32, 321335.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 8(2), 171–194. doi: 10.1037/0033-2909.108.2.171
- Medeiros, C. A. F., & Enders, W. T. (1998). Validação do modelo de conceitualização de três componentes do comprometimento organizacional de Meyer e Allen. *Revista de Administração Contemporânea*, 2(3), 67–87.
- Menezes, I. G. (2009). Comprometimento organizacional: Construindo um conceito que integre atitudes e intenções comportamentais. Unpublished Doctoral Dissertation, Federal University of Bahia, Salvador, BA.
- Meyer, J. P., Stanley, D. J., Jackson, T. A., McInnis, K. J., Maltin, E. R., & Sheppard, L. (2012). Affective, normative, and continuance commitment levels across cultures: A meta-analysis. *Journal of Vocational Behavior*, 80(2), 225–245.

- Meyer, J. P., & Allen, N. J. (1987). A longitudinal analysis of the early development and consequences of organizational commitment. *Canadian Journal of Behavioral Science*, *19*(2), 199–215. 10.1037/h0080013.
- Meyer, J. P., & Allen, N. J. (1988). Links between work experiences and organizational commitment during the first years of employment: A longitudinal analysis. *Journal of Occupational Psychology*, *61*(3), 195–209. doi: 10.1111/j.2044-8325.1988.tb00284.x
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*, 61–89.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace*. Thousand Oaks, CA: Sage.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace. Toward a general model. *Human Resource Management Review*, *11*, 299–326.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*, 538–551. 10.1037/0021-9010.78.4.538.
- Meyer, J. P., Bobocel, D. R., & Allen, N. J. (1991). Development of organizational commitment during the first year of employment: A longitudinal study of pre- and post-entry influences. *Journal of Management*, *17*(4), 717–733.
- Meyer, J. P., Jackson, T. A., & Maltin, E. R. (2008). Commitment in the workplace: Past, present and future. In J. Barling, & C. Cooper (Eds.), *The sage handbook of organizational behavior* (pp. 35–53). Los Angeles: Sage.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnysky, L. (2002). Affective, continuance and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, *61*(1), 20–52. doi: 10.1006/jvbe.2001.1842
- Morrow, P. C. (2011). Managing organizational commitment: Insights from longitudinal research. *Journal of Vocational Behavior*, *79*, 18–35. 10.1016/j.jvb.2010.12.008.
- MOW (Meaning of Working International Research Team) (1987). *The meaning of working: An eight country comparative study*. London: Academic Press.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee–organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, *14*, 224–247.
- Neininger, A., Lehmann-Willenbrock, N., Kauffeld, S., & Henschel, A. (2010). Effects of team and organizational commitment – A longitudinal study. *Journal of Vocational Behavior*, *76*, 567–579. 10.1016/j.jvb.2010.01.009.
- Ng, T. W. H., Feldman, D. C., & Lam, S. S. K. (2010). Psychological contract breaches, organizational commitment, and innovation-related behavior: A latent growth modeling approach. *Journal of Applied Psychology*, *95*, 744–751. 10.1037/a0018804.
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, *31*, 463–479. 10.1002/job.
- O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, *71*(3), 492–499.
- Paullay, I. M., Alliger, G. M., & Stone-Romero, E. F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology*, *79*, 224–228. 10.1037/0021-9010.79.2.224.
- Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callan, V., ... & Viedge, C. (1995). Role conflict, ambiguity, and overload: A 21-nation study. *Academy of Management Journal*, *38*(2), 429–452.
- Pierce, J. L., & Dunham, R. B. (1987). Organizational commitment: Pre-employment propensity and initial work experiences. *Journal of Management*, *12* (Spring), 163–178.
- Porter, L. W., Crampon, W. J., & Smith, F. J. (1976). Organizational commitment and managerial turnover: A longitudinal study. *Organizational Behavior and Human Performance*, *15*, 87–98. 10.1016/0030-5073(76)90030-1.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, *15*, 150163.
- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, *132*(1), 1.
- Schumacker, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sims, H. R., Szilagyi, A., & Keller, R. (1976). The measurement of job characteristics. *Academy of Management Journal*, *26*(2), 195–212.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.
- Solinger, O. N., Hofmans, J., & Van Olffen, W. (2015). The dynamic microstructure of organizational commitment. *Journal of Occupational and Organizational Psychology*. 10.1111/joop.12097.
- Solinger, O. N., Van Olffen, W., & Roe, R. A. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology*, *93*(1), 70–83.

- Solinger, O. N., Van Olffen, W., Roe, R. A., & Hofmans, J. (2013). On becoming (un) committed: A taxonomy and test of newcomer onboarding scenarios. *Organization Science*, 24(6), 1640–1661.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly*, 22, 45–56.
- Stone, E. F., & Gueutal, H. G. (1985). An empirical derivation of the dimensions along which characteristics of jobs are perceived. *Academy of Management Journal*, 28, 376–396.
- Sverko, B. (1989). Origin of individual differences in importance attached to work: A model and a contribution to its evaluation. *Journal of Vocational Behavior*, 34, 28–39. 10.1016/0001-8791(89)90062-6.
- Van Maanen, J., & Schein, E. (1979). Toward a theory of organizational socialization. In B. M. Staw (Ed.), *Research in organizational behavior*, Vol. 1 (pp. 209–264). JAI Press: Greenwich, CT.
- Van Maanen, J. (1975). Police socialization: A longitudinal examination of job attitudes in an urban police department. *Administrative Science Quarterly*, 20(2), 207–228.
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3, 4–70. 10.1016/j.hrmr.2008.03.003.
- Vandenberg, R. J., & Stanley, L. J. (2009). Statistical and methodological challenges for commitment researchers: Issues of invariance, change across time and profile differences. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations, accumulated wisdom and new directions* (pp. 99–135). New York: Routledge.
- Vandenberg, R. J., & Self, R. M. (1993). Assessing newcomer's changing commitments to the organization during the first six months of work. *Journal of Applied Psychology*, 78(4), 557–568.
- Veninga, R. L., & Spradley, J. P. (1981). *The work stress connection: How to cope with job burnout*. Boston: Little, Brown.
- Weng, Q. X., McElroy, J. C., Morrow, P. C., & Liu, R. (2010). The relationship between career growth and organizational commitment. *Journal of Vocational Behavior*, 77(3), 391–400.