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Nature, Stability and Determinants of Multi-Target Commitment Profiles: A Longitudinal Person-Centered Approach

István Tóth-Király†

Substantive-Methodological Synergy Research Laboratory, Department of Psychology, Concordia University, Montreal, Canada
& Statistics Canada, Ottawa, Canada

Alexandre J.S. Morin†

Substantive-Methodological Synergy Research Laboratory, Department of Psychology, Concordia University, Montreal, Canada

Christian Vandenberghe

Management Department, HEC Montréal, Montreal, Canada

Marie Louise Radanielina Hita

HEC Montréal RBC Groupe Financier, Montreal, Canada

† Since the first two authors (I. T.-K. & A.J.S.M). contributed equally to the preparation of this article, their order was determined at random: both should be considered first authors.

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Corresponding author:

Alexandre J.S. Morin,
Substantive-Methodological Synergy Research Laboratory
Department of Psychology, Concordia University
7141 Sherbrooke W, Montreal, QC, Canada, H4B 1R6
E-mail: alexandre.morin@concordia.ca

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Abstract

Adopting a longitudinal person-centered perspective, we examined the profiles of employee commitments to the organization, supervisor, occupation, work team, and family in a diversified sample of employees ($N = 1459$) surveyed three times at one-month intervals during the COVID-19 pandemic. In line with recent developments in research on commitment toward multiple targets, these profiles were estimated while considering employees' global levels of commitment to their work life (across targets) as well as the specific nature of their commitment to each target. Our results revealed six distinct commitment profiles differing quantitatively and qualitatively from one another and defined by employees' global and target-specific levels of commitment. These profiles were replicated across the three measurement points. Profile membership was moderately to highly stable over time but also demonstrated some malleability. Lastly, we found that employees' levels of basic psychological need satisfaction at work and perception of work meaningfulness predicted membership into more favorable commitment profiles.

Keywords: commitment; multi-target; profiles; need satisfaction; meaningfulness; longitudinal; latent transition analysis (LTA); self-determination theory (SDT).

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Defined as a “*volitional psychological bond reflecting dedication to and responsibility for a particular target*” (Klein et al., 2012, p. 137), commitment can be directed at a variety of targets in (e.g., organization, supervisor) and out (e.g., family) of the workplace (Morin et al., 2011a; Perreira et al., 2018) and represents a core predictor of a variety of desirable outcomes for employees and their organizations (Cooper-Hakim & Viswesvaran, 2005; Meyer et al., 2002). Although commitment to each specific target has unique behavioral and attitudinal implications, it remains critical to understand how these various commitments combine to form distinct profiles of employees (Becker, 2016; Klein & Park, 2021; Klein et al., 2022; Morin et al., 2011a). This is the objective of the present study, which relies on a person-centered approach (Morin et al., 2018) to understand how different profiles of employees simultaneously experience their commitment to multiple targets across two domains (work and family). Our study thus informs theory about the nature of commitment systems, defined as a network of interrelated commitments to a set of targets (Klein et al., 2022). The present study also examines the stability of these profiles and the role of individual predictors of profile membership.

Many studies have adopted a person-centered perspective to identify the most common commitment configurations (for reviews, see Kabins et al., 2016; Meyer & Morin, 2016). Although some studies have considered profiles formed by the joint consideration of two targets of commitment (e.g., Carson et al., 1999; Loscher et al. 2020; Meyer et al., 2015, 2019; Morin et al., 2015; Tsoumbris & Xenikou, 2010; van Rossenberg et al. 2023; Wombacher & Felfe, 2017), few studies have simultaneously considered more than two targets of commitment (Becker & Billings, 1993; Cooper et al., 2016; Loscher et al., 2023; Meyer et al., 2021; Morin et al., 2011a; Swales, 2004). Among those, only a handful (Meyer et al., 2021; Morin et al., 2011a) have done so while accounting for employees’ global levels of commitment to their work life (i.e., their global levels of work-related commitment across targets; Perreira et al., 2018). In this study, we investigate employees’ profiles of commitment directed at four work-related targets (i.e., organization, supervisor, work team, occupation), as well as to one non-work-related target (i.e., the family) to specifically consider how the work and non-work domains may combine in the formation of commitment profiles (e.g., van Rossenberg et al., 2018).

Capitalizing on a short-term longitudinal design including three measurement points, taken one month apart during the COVID-19 pandemic (which forms the empirical setting of the present study), allowed us to investigate the stability of these profiles over time during a period that gave rise to severe disruptions in the functioning of most organizations. Indeed, by forcing employers and employees alike to constantly adapt their work to this new situation and changing governmental policies (including periods of mandatory confinement designed to slow the spread of the virus [Kniffin et al., 2021]), the pandemic has created a unique setting to assess the stability of commitment profiles under externally driven changes in work conditions. Under relatively stable work conditions, even those characterized by strategic organizational changes (Kam et al., 2016) or economic crises (Meyer et al., 2018), the nature of commitment profiles (i.e., within-sample stability) and employees’ membership into specific commitment profiles (i.e., within-person stability) remains quite stable over time. From a practical perspective, stability is important as it addresses the key question of whether commitment profiles are generalizable, and where they are located on a continuum ranging from perfectly malleable to perfectly rigid states. The present study thus addresses previous calls for a more extensive investigation of the stability of commitment profiles over time (Klein & Park, 2021; Meyer & Maltin, 2010; van Rossenberg et al., 2018). Lastly, we consider the role played by employees’ basic psychological need satisfaction at work and work meaningfulness as predictors of profile membership. In doing so, we thus also address the call for additional research on the individual antecedents of commitment profiles (e.g., Bergman & Jean, 2016; Wasti, 2003).

Commitment Profiles: Their Nature

According to Meyer et al. (2021), the nature of the commitment profiles identified in person-centered studies helps address two important theoretical considerations. The first of those considerations is whether commitment to the organization acts as primary target accounting for commitment to other targets (i.e., playing a central role in the definition of the profiles), or whether it is simply one of many targets (i.e., playing a secondary role in the definition of the profiles) (e.g., Hunt & Morgan, 1994; Morin et al., 2011b). The second of those considerations is related to whether the nature of the profiles is consistent with the presence of congruence or incongruence among the different targets of commitment (Becker, 1992; Morrow, 1993; Reichers, 1985), a consideration that becomes critical when commitments to non-work domains are simultaneously considered. Indeed, recent theoretical

developments (Klein et al., 2022; Perreira et al., 2018) have reinforced the idea that employees' commitments form a system of inter-related parts both within- (e.g., organization, supervisor, etc.) and across- (work versus family) domains. The present study addresses these propositions by examining whether a strong commitment to some targets appears to be incompatible with commitments to other targets, or whether employees are able to develop a strong commitment to multiple targets across domains. In this regard, the person-centered approach is particularly useful as it makes it possible to find support for distinct propositions within distinct profiles of employees (Meyer et al., 2021). For instance, one profile could be dominated by a strong commitment to the organization that seems to spread to all other work-related targets, whereas another one could rather be dominated by more social forms of commitment that spread across life domains.

Person-centered analyses have been frequently applied to investigate employees' profiles of commitment to their organization (Kabins et al., 2016; Meyer & Morin, 2016) and occupation (Houle et al., 2020). However, person-centered studies of commitment directed at more than one target are still rare (for reviews, see Meyer & Morin, 2016; van Rossenberg et al., 2022), and typically limited to two targets: the organization and the supervisor (Meyer et al., 2015), the organization and the occupation (Loscher et al. 2020; Meyer et al., 2019; Morin et al., 2015; Tsoumbri & Xenikou, 2010), the organization and the career (Carson et al., 1999), the organization and workgroup (Wombacher & Felfe, 2017), or the organization and the client (van Rossenberg et al. 2023). Fortunately, a few additional studies have tried to capture the complex reality of employees' commitment by simultaneously considering four (i.e., Becker & Billings, 1993; Cooper et al., 2016; Loscher et al. 2023; Meyer et al., 2021; Morin et al., 2011a; Swailes, 2004) or more (Morin et al., 2011b) targets. A description of these studies is provided in Table S1 of the online supplements.

This table reveals that, despite variations in the number and nature of the targets examined in these studies, the results tend to converge on four most typical profiles: (a) highly committed to all targets; (b) uncommitted to all targets; (c) committed to the organization as an institution, sometimes including the supervisor and/or top management; and (d) committed to the people in the workplace, sometimes including the supervisor, the workgroup, the customers, and even the organization. Beyond these main profiles, some additional configurations have been identified in a subset of studies, including a career-oriented profile (Morin et al., 2011a), an occupation-oriented profile (Cooper et al., 2016), and a "mission-oriented" profile (commitment to the organization and the citizens in a police organization; Meyer et al., 2021). These additional profiles support the importance of replication in person-centered research (e.g., Meyer & Morin, 2016), as well as the relevance of considering a variety of targets to achieve a more comprehensive picture of commitment (e.g., Morin et al., 2011a; van Rossenberg et al., 2018). Importantly, these studies converge in demonstrating that commitments to various targets can be both complementary and in conflict in a way that varies across profiles and targets, and that the organization appears as one of many targets of commitment. Interestingly, Loscher et al. (2023) also highlight how commitments can converge, or fail to do so, across distinct life domains, a consideration to which we come back shortly.

Despite their significance, a common limitation of most previous studies lies in their failure to account for the variance shared among all targets of work-related commitment and reflecting employees' global level of commitment to their work life according to Perreira et al.'s (2018) hierarchical model of commitment. This model suggests that employees' commitments to various work-related targets should partly reflect their global level of commitment to their work life, and that this global level must be explicitly considered to obtain a clearer picture of the role uniquely played by commitments to more specific work-related targets. For constructs such as commitment, known to present a dual global (i.e., global levels of commitment to one's work life) and specific (i.e., the unique quality of each target beyond these global levels) nature, statistical research (Morin et al., 2016, 2017) has demonstrated that failure to account for this duality results in inaccurate profiles. Such inaccuracies entail the identification of profiles dominated by quantitative differences (i.e., differing from one another on employees' global levels of commitment shared across targets), making it harder to identify profiles differing qualitatively (i.e., characterized by distinctive configurations of commitment). As a result, failing to consider this duality might explain why many previous studies have identified profiles characterized by a similar shape but differing mainly in their global levels of commitment (e.g., Cooper et al., 2016).

Only two studies have attempted to account for the *global-specific* duality of commitment (Meyer et al., 2021; Morin et al., 2011a). Morin et al. (2011a) identified profiles of commitment to seven targets

(organization, occupation, supervisor, customers, work group, career, and work) while controlling for employees' global levels of commitment across targets through a factor mixture approach. This approach allowed them to partial out global levels of commitment across targets while deriving profiles from the unique nature of each target. Their results revealed five commitment profiles, three of which differed qualitatively from one another (supervisor-committed, workplace-committed, and career-committed) and two of which differed only quantitatively (committed and uncommitted). However, although initial statistical research into the performance of this factor mixture approach to control for the dual global-specific nature of commitment showed promise (Morin & Marsh, 2015), this approach has since been superseded by an improved methodology. This methodology entails the disaggregation of employees' global and specific levels of work-related commitment through preliminary bifactor measurement models (demonstrated to be a relevant factor structure of measures of commitment directed at multiple targets by Perreira et al., 2018), rather than as part of the profile estimation process (Morin et al., 2016a, 2017). This novel approach was recently applied by Meyer et al. (2021), who identified six profiles differing from one another both quantitatively and qualitatively when considering four specific targets of commitment in a police organization (i.e., organization, supervisor, coworkers, and citizens).

Importantly, both studies relied on a single sample, surveyed at a single point in time, leaving replication uncertain. Thus, although the novel approach used by Meyer et al. (2021) represents an important step forward in commitment profile research, it also showcases the need for replication to ascertain that the profiles are not methodological artifacts of their unique sample (i.e., police organization). In the present study, in alignment with previous suggestions (van Rossenberg et al., 2022; Meyer et al., 2021, Morin et al., 2011a), we selected four work-related targets of commitment that have been mostly studied in isolation in previous research, but which represent important targets in commitment research: organization, supervisor, occupation, and work team. These targets have been found to vary distinctively from one another in a substantial subset of profiles in previous person-centered studies, and to play a significant role in profile definition (e.g., Meyer & Morin, 2016).

Moreover, to address prior calls for more research on the interrelations among commitments across life domains (e.g., Johnson et al., 2009; Perreira et al., 2018; van Rossenberg et al., 2018), we also incorporated employees' commitment to a non-work target: their family. Indeed, a single study (Loscher et al., 2023) has thus far considered commitment profiles across different life domains (e.g., military versus civil work for members of the military reserve). This study supported the idea that, for some employees, commitment profiles showed a lack of congruence across domains, and that displaying a strong and congruent commitment to both domains was associated with better outcomes in terms of job performance, citizenship behaviors and turnover intentions. This study thus highlights the importance of considering whether and how commitments differ across domains, while acknowledging the need to jointly consider multiple domains. Despite the scarcity of previous cross-domain studies, knowledge about the congruence or lack thereof of commitments across life domains is essential for theory development related to our understanding of how these commitments jointly come to influence employees functioning across life domains (Klein et al., 2022; Loscher et al., 2023; Perreira et al., 2018). In the present study, and in accordance with Loscher et al.'s (2023) results, we expect employees' commitment to their family to play a major role in the definition of at least a subset of the profiles identified in this study. We note, however, that this role is likely to be slightly more pronounced as a result of the COVID-19 pandemic, which has been found to increase the centrality of this role for many employees (Shek, 2021), as well as its potential buffering effects against risks associated with the pandemic (Prime et al., 2020). Additionally, following a question raised by Morin et al. (2011a) and Sinclair et al. (2015) related to whether employees can really display a complete lack of commitment, and to account for recent research indicating that some employees "put family first" (Thompson et al., 2021), we consider whether employees displaying a lack of commitment to their work life might display a high level of commitment to their family (Perreira et al., 2018), suggesting incongruence between the work and family domains. In contrast, congruent commitments between these two domains should be consistent with a generally desirable profile of commitment in the work domain due to a lack of interference from the family domain.

Given our reliance on a novel theoretical perspective (Perreira et al., 2018), on methodologically inductive analyses (Morin et al., 2018), and on the consideration of commitment to the family as a component of employees' commitment system that has never yet been investigated in connection with

work-related commitments, it is not possible to clearly anticipate the number and nature of the profiles which will be identified in this study. We thus follow an approach similar to that previously advocated by van Rossenberg et al. (2022, 2023) and leave as an open research question the number and nature of the profiles to be identified:

Research Question 1. How many profiles of commitment will be identified, and will these profiles differ from one another quantitatively and qualitatively?

Research Question 2. Will employees' commitment to their family play a primary role (i.e., represent a core defining characteristic of a profile) or secondary role (i.e., be close to the sample average or aligned with the other targets) in the definition of the profiles?

Commitment Profiles: Longitudinal Stability

Given the naturally inductive nature of person-centered analyses, the examination of commitment profile stability and their replication is critical (Meyer & Morin, 2016; Morin et al., 2016b), and the ability to demonstrate the replicability of a solution (across groups or over time) within the same study provides stronger evidence that the identified profiles do not simply reflect random sampling variations (Morin et al., 2016b; Schmiedege et al., 2018). Demonstrated that these profiles can be observed across a variety of contexts, situations, occupations, and over time informs theory about the common core commitment configurations that should be expected to be identified regularly (e.g., Meyer & Morin, 2016; Morin et al., 2016b). Longitudinal replication is informative as it provides two sources of information (Kam et al., 2016; McLarnon et al., 2021; Morin et al., 2020): within-sample stability and within-person stability. Within-sample stability refers to the extent to which the nature of the profiles (e.g., number, shape, within-profile variability, and size) remains unchanged over time. This form of stability (at least in relation to the number and shape of profiles) is the most critical. Indeed, observing that the nature of the profiles changes over time would warn against their theoretical value. In contrast, tests of within-person stability focus on the extent to which employees retain membership in their profile over time and address the most frequent profile-to-profile transitions.

Early research has generally supported the idea that commitment is at least moderately stable over time, which has been attributed both to individual dispositions (e.g., Mowday et al., 1982) and stable external conditions (e.g., Weiner, 1982). However, more recent research has also documented the malleability of commitment, its reactivity to changes in employees' work conditions, and its ability to evolve (e.g., Klein et al., 2012; Rhoades et al., 2001), particularly in the early stages of employment (Vandenberghe et al., 2017, 2021). For instance, rank-order estimates of stability typically range from .44 to .83 across targets of commitments and a variety of time intervals (Fernet et al., 2012; Galletta et al., 2019; Gao-Urhahn et al., 2016; Robert & Vandenberghe, 2021; Spurk et al., 2019; Tang & Vandenberghe, 2020b), indicating moderately high levels of stability.

Research thus positions commitment as a dynamic construct that tends to remain relatively stable in the absence of changes impacting employees' work conditions but is also responsive to changes in these conditions. Societal changes or "shocks" such as the COVID-19 pandemic may create a new and unexpected empirical setting when employees' work conditions are forcefully modified by circumstances out of their control (e.g., remote work, lack of in-person interactions, intrusions from one's personal life; Kniffin et al., 2021). Moreover, even outside of mandatory confinement periods, the COVID-19 pandemic also forced employees to modify their work routine to comply to a variety of new safety measures (e.g., wearing masks, maintaining physical distance, handwashing). In this novel empirical setting, these multiple transformations may have resulted in parallel changes in employees' commitment profiles, namely due to disruptions in their attachment to the workplace (McFarland et al., 2020). For example, in a recent international study (Germany, Czech Republic, Slovakia, Italy) conducted during the COVID-19 pandemic, Prochazka et al. (2020) reported a decrease in participants' levels of organizational commitment relative to before the pandemic.

Unfortunately, longitudinal person-centered research is scarcer, making it hard to transpose these observations to the more holistic nature of employees' overarching commitment profiles. In this regard, accumulating person-centered evidence also suggests that commitment profiles might be even more stable than commitment levels, at least when a single target of commitment is considered. For instance, Kam et al. (2016) was able to replicate the nature (number and shape) of their organizational commitment profiles (i.e., within-sample stability) over an eight-month period involving strategic organizational changes and reported very high rates of within-person stability in profile membership (less than 3% of their sample transitioned to a new profile). Studying how organizational commitment

profiles might have been impacted by the 2001 Turkish economic crisis, Meyer et al. (2015) reported evidence of generally unchanged (number and shape) profiles, although the size of these profiles changed slightly as a result of the crisis (unfortunately, as these authors relied on different samples of employees before and after the crisis, within-person stability could not be assessed). However, two more recent studies also supported the within-sample and within-person stability of organizational (Xu & Payne, 2018) and occupational (Houle et al., 2020) commitment profiles. Interestingly, both studies reported more frequent transitions (an average of 4.44% across profiles over periods of one to two years in Xu and Payne, 2018; an average of 6.09% across profiles over two years in Houle et al., 2020) than Kam et al. (2016). Moreover, both studies reported one profile associated with transition rates higher than 60%. The present study seeks to expand upon these previous results by focusing on two periods of one month during the COVID-19 pandemic, known to have drastically changed the work arrangements of most employees (e.g., Kniffin et al., 2021) and by considering profiles defined by multiple targets of commitment. In this regard, this study represents the first longitudinal investigation of multi-target commitment profiles. Based on the above discussion, we propose that:

Hypothesis 1. The number and shape of the identified profiles will be replicated over time (within-sample stability).

Research Question 3. Given our unique context (the COVID-19 pandemic), we leave as an open research question whether within-profile variability and the relative size of the profiles will remain the same over time.

Hypothesis 2. Profile membership will be moderately (50%) to highly (75%+) stable over time (within-person stability).

Commitment Profiles: Individual Predictors

Addressing previous calls highlighting the need to achieve a more complete understanding of the individual (e.g., Bergman & Jean, 2016; Wasti, 2003) and motivational (Hirschi & Spurk, 2021) antecedents of commitment, we considered psychological need satisfaction and work meaningfulness as potential drivers of multi-target commitment profiles over time. These constructs were selected for both theoretical relevance (need satisfaction: Ryan & Deci, 2017; work meaningfulness: Bunderson & Thompson, 2009) and malleability in the context of interventions (need satisfaction: Slemp et al., 2021; Tafvelin et al., 2019; work meaningfulness: Fletcher & Schofield, 2021; Thory, 2016).

Psychological Need Satisfaction

Self-determination theory (SDT; Ryan & Deci, 2017) asserts that the satisfaction of employees' needs for autonomy (i.e., the need to experience a sense of volition and psychological freedom), competence (i.e., the need to experience a sense of mastery and effectiveness) and relatedness (i.e., the need to experience a sense of belonging, reciprocity, and caring) are core drivers of human motivation and well-being, themselves known to be intimately linked to commitment (Meyer & Maltin, 2010; Meyer et al., 2004, 2010). Deci et al. (2017) suggest that practices designed to nurture need satisfaction (e.g., encouraging initiative, mastery, and positive social interactions) should be particularly beneficial for organizations seeking to build motivation, engagement, and commitment among their employees. Research has provided strong support for these assertions as illustrated by positive associations between psychological need satisfaction and a variety of desirable outcomes (e.g., performance, well-being, motivation; Deci et al., 2017; Van den Broeck et al., 2016), including commitment toward various work-related targets (e.g., Colledani et al., 2018; Falvo et al., 2016; Greguras & Diefendorff, 2009; Tang & Vandenberghe, 2020a). This last set of results has been replicated in a person-centered study by Meyer et al. (2012) demonstrating that high levels of need satisfaction predict membership into more desirable organizational commitment profiles. From a theoretical perspective, the benefits of need satisfaction are seen as providing employees with evidence that their employer has upheld its side of the psychological contract binding them together, in turn leading them to reciprocate for these benefits through higher levels of commitment to work-related entities (e.g., Eisenberger et al., 2001; Meyer et al., 2010, 2014).

More generally, Deci and Ryan (2000) argue that the satisfaction of all three needs (not just one or two) is necessary for optimal functioning. In this regard, studies have shown that whereas global levels of need satisfaction tend to share the strongest association with individual outcomes, each specific need also tends to display unique associations with these same outcomes. Importantly, just like commitment (Perreira et al., 2018), need satisfaction measures have been found to be best represented by a measurement model in which global levels of need satisfaction (across all three needs) can be properly disaggregated from the specific degree to which each need is satisfied beyond this global level (e.g.,

Gillet et al., 2019, 2020; Sánchez-Oliva et al., 2017; Tóth-Király et al., 2019). This second, specific component is generally interpreted as reflecting an imbalanced level of satisfaction of each need relative to these global levels (Gillet et al., 2019, 2020). Although early work has suggested that imbalanced levels might yield undesirable effects (e.g., Sheldon & Niemiec, 2006), research evidence has not always supported this claim (Church et al., 2013), showing that both global and specific levels of need satisfaction are beneficial for employees (e.g., Gillet et al., 2019, 2020; Sánchez-Oliva et al., 2017; Tóth-Király et al., 2019). On this basis, we propose that:

Hypothesis 3. Global levels of need satisfaction and specific levels of autonomy, competence, and relatedness satisfaction will predict membership into the profiles characterized by higher global levels of commitment relative to profiles characterized by lower global levels of commitment.

Research Question 4. Lacking prior guidance from research considering multiple targets of commitment, we leave as an open research question whether global and specific levels of need satisfaction will share differentiated associations with profiles characterized by matching global levels of commitment and differing in their specific commitment configuration.

Work Meaningfulness

Employees spend a substantial amount of their time at work and thinking about work. For this reason, it should not come as a surprise to note that considering one's work to be a meaningful and relevant pursuit has been found to be associated with a wide range of positive outcomes for employees (e.g., Allan et al., 2016; Arnold et al., 2007; Humphrey et al., 2007; May et al., 2004). Work meaningfulness is defined as the amount of significance and positive meaning work holds for employees (Pratt & Ashforth, 2003; Rosso et al., 2010) and is assumed to represent a core driver of optimal functioning and psychological well-being (Baumeister & Vohs, 2002). Employees who consider their work to be meaningful are more likely to understand themselves, their organizations, and how both fit together, which in turn helps them experience growth, learning and ownership of their work (e.g., Hackman & Oldham, 1976; Kahn, 1990; Kim et al., 2018). This deeper understanding should allow them to develop a stronger emotional bond, or commitment, with their organization, its mission, and its various constituencies (Jiang & Johnson, 2018; Kim et al., 2018; Steger & Dik, 2010; Steger et al., 2012). Thus far, empirical research has supported these theoretical propositions by showcasing positive associations between work meaningfulness and employees' commitment toward a variety of targets (e.g., Duffy et al., 2012; Geldenhuys et al., 2014; Jiang & Johnson, 2018; Jiang et al., 2020; Steger et al., 2012; Tummers & Knies, 2013; Usman et al., 2021; Wang & Zu, 2019). However, we are not aware of any previous studies that has considered how work meaningfulness might influence employees' likelihood of membership into multi-target commitment profiles. Based on research supporting the benefits of work meaningfulness for employee commitment, we propose that:

Hypothesis 4. Higher levels of work meaningfulness will predict membership into the profiles characterized by higher global levels of commitment relative to profiles characterized by lower global levels of commitment.

Research Question 5. Lacking prior guidance from research considering multiple targets of commitment, we leave as an open research question whether work meaningfulness will share differentiated associations with profiles characterized by matching global levels of commitment and differing in their specific commitment configuration.

Method

Participants and Procedure

Participants were members of the AskingCanadians™ panel invited to participate via email by Delvinia, a professional survey firm specialized in online data collection based in Canada. The AskingCanadians™ panel includes over one million Canadians, considered to be representative of the Canadian population in terms of age, language, sex, education, and income (Statistics Canada, 2021). The cover letter accompanying the email invitations described the study objectives and guaranteed confidentiality. Participants were asked to complete the questionnaires while thinking about their experiences over the past four weeks. Time 1 (T1) participants were invited to complete identical follow-up questionnaires one (T2) and two (T3) months later. The whole data collection process occurred between March and August 2021. This study was approved by the university research ethics committee of the third author's Institution.

A total of 1616 participants completed the Time 1 survey. Excluding roughly 5% of "straightliners" (respondents who select the same response on the survey) and "speeders" (respondents whose survey

completion time is less than 50% of the median response time) as well as respondents who failed the attention checks ($n = 157$), the final sample included 1459 participants (50.1% male), all of whom were employed in a wide range of occupations at the time of completing the survey. These participants were aged between 18 and 65 years ($M = 47.38$; $SD = 11.40$) and had been working in their current job for an average of 11.59 years ($SD = 9.91$). Most of the participants worked remotely either less than one day (47.5%), five days (22.8%) or more than five days (11.7%) each week, and 66.8% were in a relationship or married. In terms of education, 47.8% had a non-university degree, 27.5% had a bachelor's degree, 9.7% had a university certificate, 11.5% had a master's degree, and 3.5% had a doctorate or other doctoral degree.

Measures

Commitment. Employee commitment toward their organization (4 items; e.g., "How committed were you to your organization;" $\alpha_{T1} = .956$, $\alpha_{T2} = .945$, $\alpha_{T3} = .956$), supervisor (4 items; e.g., "To what extent have you chosen to be committed to your supervisor;" $\alpha_{T1} = .959$, $\alpha_{T2} = .965$, $\alpha_{T3} = .962$), occupation (4 items; e.g., "To what extent did you care about your occupation;" $\alpha_{T1} = .926$, $\alpha_{T2} = .945$, $\alpha_{T3} = .946$), team (4 items; e.g., "How committed were you to your team;" $\alpha_{T1} = .964$, $\alpha_{T2} = .964$, $\alpha_{T3} = .969$), and family (4 items; e.g., "How dedicated were you to your family;" $\alpha_{T1} = .965$, $\alpha_{T2} = .970$, $\alpha_{T3} = .968$) was assessed using Klein et al.'s (2014) unidimensional target neutral (KUT) measure. Employees were asked to rate the extent to which they felt committed to each of these targets during the past four weeks using a 5-point scale (1 = *not at all*; 5 = *extremely*).

Need Satisfaction at Work. Employees' psychological need satisfaction at work was measured with the 12-item version (Chiniara & Bentein, 2016) of the Work-related Basic Need Satisfaction Scale (Van den Broeck et al., 2010). Participants were asked to rate how satisfied they were with facets of their work reflecting their need for autonomy (4 items; e.g., "The opportunity to exercise my own judgement and my own action;" $\alpha_{T1} = .940$, $\alpha_{T2} = .937$, $\alpha_{T3} = .954$), competence (4 items; e.g., "The level of confidence about my ability to execute my job properly;" $\alpha_{T1} = .939$, $\alpha_{T2} = .948$, $\alpha_{T3} = .952$) and relatedness (4 items; e.g., "The feeling of being part of a group at work;" $\alpha_{T1} = .907$, $\alpha_{T2} = .909$, $\alpha_{T3} = .914$). All items were rated on a 7-point scale (1 = *very dissatisfied*; 7 = *very satisfied*).

Work Meaningfulness. Employees' perceptions about the meaningfulness of their work were measured using a 5-item scale (e.g., "The work that I do makes the world a better place;" $\alpha_{T1} = .954$, $\alpha_{T2} = .962$, $\alpha_{T3} = .962$) developed by Bunderson and Thompson (2009). Participants were asked to rate the extent to which they agreed with the statements of the questionnaire using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*).

Controls (Demographics and Job Characteristics). Because previous research has sometimes supported the presence of associations between commitment profiles and participants demographic characteristics (e.g., Meyer et al., 2015; Morin et al., 2011a) we assessed the following variables for possible inclusion as controls in our predictive analyses: (a) age (in years, standardized); (b) sex (0 = male, 1 = female); (c) level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized); (d) job tenure (in years, standardized); (e) relationship status (0 = married or in a relationship, 1 = not married or not in a relationship); and (f) amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Analyses

Model Estimation and Missing Data

All analyses were conducted in Mplus 8.6 (Muthén & Muthén, 2021) using the maximum likelihood estimator robust to nonnormality (MLR) and full Information Maximum Likelihood (FIML) algorithms to handle missing data. FIML made it possible to estimate all models using the full sample of employees who completed at least one measurement point without relying on a suboptimal deletion of participants who completed a single measurement point (Enders, 2010; Graham, 2009). FIML operates under missing at random (MAR) assumptions, which allow missingness to be conditioned on all the other variables in the model. By allowing missingness on any variables to be conditioned on participants' scores on the same variables at other time points, MAR assumptions provide a lot of flexibility in longitudinal analyses, making them robust to most forms of attrition even under high rates of missingness (i.e., 75%+; Lee et al., 2019; Newman, 2003; Newman, 2014). Overall, 1459 respondents (0% missing) participated at Time 1, 1024 (29.81% missing) at Time 2, and 714 (51.06% missing) at Time 3. Of all the participants, 435 completed one measurement point, 310 completed two measurement

points, and 714 completed all three measurement points. Attrition analyses are reported in Table S2 of the online supplements.

Preliminary Analyses

A series of preliminary measurement models were estimated to verify the psychometric properties of our measures, as well as to obtain factor scores (estimated with $M = 0$ and $SD = 1$ across measurement points to allow longitudinal comparisons) for the main analyses. When compared to manifest scale scores (i.e., the average or sum of the items forming a scale), factor scores preserve the nature of the underlying measurement model (e.g., bifactor, invariance; Morin, et al., 2016a, 2016b, 2017) and partially control for unreliability (Skrondal & Laake, 2001). Following recent recommendations (Meyer et al., 2021; Perreira et al., 2018), commitment was operationalized via a bifactor measurement model, allowing us to obtain a direct estimate of participants' global levels of commitment to their work life properly disaggregated from a series of non-redundant specific factors reflecting their levels of commitment uniquely directed to each work-related target beyond that global factor. Family commitment was operationalized as a distinct commitment target allowed to correlate with the work-related commitment factors (Perreira et al., 2018). A similar bifactor operationalization was used for the need satisfaction indicators, following emerging evidence in this area (Gillet et al., 2019, 2020; Sánchez-Oliva et al., 2017; Tóth-Király et al., 2019). Work meaningfulness was represented by single factor model. Details on these preliminary analyses are reported in Appendix 1 (Tables S3 to S5) of the online supplements. Correlations among all variables used in this study are reported in Table S6 of these same online supplements.

Estimating Participants' Commitment Profiles

Latent profile analytic (LPA) solutions including one to eight latent profiles were estimated, allowing the means and variance of the commitment indicators to be freely estimated across profiles (Morin & Litalien, 2019; Peugh & Fan, 2013). To avoid convergence on local maxima and to maximize the replicability of the best log likelihood value, models were estimated using 5000 random start values, 1000 iterations, and 200 final optimizations (Hipp & Bauer, 2006; McLachlan & Peel, 2000). These values were increased to 10000, 1000, and 100 for the longitudinal models. The objective of these analyses was to verify whether the same number of commitment profiles would be identified at each time point. Once the optimal solution was selected at each time point, time-specific LPA solutions were integrated into a longitudinal LPA solution, which was used to conduct tests of profile similarity over time. These tests were performed using the following sequence (Morin, & Litalien, 2017; Morin et al., 2016b): (1) configural similarity (same number of profiles at each time point); (2) structural similarity (same within-profile means across time points); (3) dispersion similarity (same within-profile variances across time points); and (4) distributional similarity (same relative profile size across time points). The most similar longitudinal LPA solution was converted to a latent transition analytic (LTA) solution (Collins & Lanza, 2010) to assess within-person similarity and transitions in profile membership using the manual three-step approach (Asparouhov & Muthén, 2014) described by Morin and Litalien (2017). This approach is required to preserve the nature of a longitudinal LPA solution of distributional similarity when converted to a LTA.

Predicting Profile Membership

Controls (measured at T1) and theorized predictors (measured at T1, T2, and T3) of profile membership were directly integrated to the final LTA model via a multinomial logistic regression link function. These analyses were conducted in two steps. First, we verified whether it would be relevant to include the demographics and job characteristic variables as controls in the analyses involving the main predictors. This verification was important given research evidence suggesting that these variables were likely to be related to commitment in a way that might influence our results regarding the role of the theoretical predictors (Cooper et al., 2016; Gao-Urhahn et al., 2016; Meyer et al., 2002; Tang & Vandenberghe, 2020b). This verification involved the estimation of four alternative models: (1) null effects; (2) freely estimated effects across time points and profiles; (3) freely estimated effects across time points; and (4) predictive similarity. More details are provided about this sequence in Appendix 2 of the online supplements. The same sequence of tests was then repeated for the theorized predictors where the time-specific predictors were allowed to predict profile membership at the matching time point while controlling for predictor levels at the previous time points.

Model Selection and Comparisons

When selecting the optimal number of profiles at each time point, we considered the meaning,

theoretical conformity, and statistical adequacy of the solutions, as well as the following statistical indicators (e.g., Morin, 2016): the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Consistent AIC (CAIC), Sample-Size-Adjusted BIC (SSABIC), adjusted Lo-Mendell-Rubin (aLMR) likelihood ratio test, and the Bootstrap Likelihood Ratio Test (BLRT). Lower values on AIC, BIC, CAIC, and SSABIC suggest a better fitting solution whereas a non-significant p value for aLMR and BLRT supports the superiority of a model including one less profile. The results from statistical simulation studies have demonstrated the utility of the CAIC, BIC, SSABIC and BLRT, while showing that the AIC and aLMR were not reliable indicators of the number of profiles (e.g., Diallo et al., 2016, 2017; Peugh & Fan, 2013). For this reason, we only report these indicators to ensure a complete disclosure of information but will not use them to guide model selection. Furthermore, because all these indicators are heavily influenced by sample size (Marsh et al., 2009), they often keep on suggesting the addition of profiles without converging on a specific solution. When this happens, the graphical examination of “elbow plots” tends to facilitate the profile selection process (i.e., a plateauing in the decrease in value of the CAIC, BIC, and SSABIC suggests that the optimal number of profiles has been reached; Morin & Litalien, 2019). Entropy (i.e., classification accuracy) is also reported with values ranging from 0 (low) to 1 (high). When testing profile similarity or contrasting alternative predictive models, at least two indicators out of the CAIC, BIC, and SSABIC should have a lower value relative to the previous model to support the more “similar” model.

Results

Latent Profile Analyses and Longitudinal Tests of Profile Similarity

The results from the solutions including different numbers of profiles at each time point are reported in Table 1. Given that all indicators kept on suggesting the addition of profiles without converging on any specific solution, we turned our attention to examining the elbow plots, reported in Figure S1 of the online supplements. These plots revealed a similar decreasing trend across all three time points, characterized by a first inflexion point associated with the two-profile solution (although the decrease in the value of the information criteria remained substantial after two profiles), as well as two other slight inflexion points at the 6- and 7-profile solutions (at T1), at the 3- and 5-profile solutions (at T2), or at the 4- and 7-profile solutions (at T3). As a result, solutions including 3 to 7 profiles were more thoroughly inspected. This inspection first revealed that all solutions were statistically proper, had high levels of classification accuracy (entropy values ranged from .819 to .956) and displayed a high level of similarity across time points (providing early evidence of configural similarity). Increasing the number of profiles from 3 to 6 resulted in the addition of theoretically meaningful, well-defined, and distinct profiles (i.e., in relation to the profiles illustrated in Figure 1, these new profiles corresponded roughly to Profiles 1-2-5 at T1, 1-4-5 at T2, and 1-3-6 at T3, resulting in a final set of convergent profiles over time). In contrast, adding a seventh profile to the solution did not bring additional information, but resulted in the division of one existing profile into smaller ones characterized by similar shapes (i.e., at T1, two of the profiles had virtually the same shape as Profile 3 represented in Figure 1; at T2 and T3, two of the profiles had virtually the same shape as Profile 6 represented in Figure 1, and the size of one of those fell under 2%). The 6-profile solution was retained at the three time points, supporting its configural similarity.

Results pertaining to the longitudinal tests of profile similarity are reported in the upper section of Table 2. Relative to the model of configural similarity, the model of structural similarity resulted in higher values on all the CAIC, BIC and SSABIC, suggesting that the structure of the profiles may not be fully identical over time. A visual inspection of the nature of the profiles identified at each time point revealed that five out of the six profiles appeared to be roughly identical, while the remaining profile was somewhat distinct at Time 3. Therefore, we re-estimated a model of partial structural similarity in which the structure of the first five profiles was constrained to equality over time, while that of the sixth profile was allowed to differ between T1-T2 versus T3. This model of partial structural similarity resulted in lower CAIC and BIC values than the model of configural similarity and was thus supported by the data. The subsequent model of dispersion similarity was not supported by the data either (i.e., this model had higher values on all information criteria relative to the model of partial structural similarity), suggesting that the within-profile variability of some profile indicators changed over time. After examining the parameter estimates from the previous solution of structural similarity to locate those that differed the most over time, we estimated a model of partial dispersion similarity in which the variance of the profile indicators was freely estimated in four profiles at T3. The resulting solution of

partial dispersion similarity was supported by the data, as evidenced by lower values on the CAIC and BIC relative to the model of partial structural similarity¹. Finally, the results also failed to support the distributional similarity of this solution, suggesting that the size of the profiles differed over time (as evidenced by an increase in the value of all information criteria relative to the previous model)². This model was thus retained for interpretation and further analyses. This solution is illustrated in Figure 1 (for parameter estimates, see Table S7 of the online supplements).

Profile 1, which we labelled *Globally uncommitted to work and family, with a supervisor orientation*, describes employees characterized by low global levels of commitment to their work life and to their family, moderately low specific levels of commitment to their occupation and work team, close to average specific levels of commitment to their organization, and moderately high specific levels of commitment to their supervisor³. The relative size of this profile was stable over time (T1: 4.95%, T2: 4.95%, T3: 4.51%). Profile 2, which we labelled *Globally uncommitted to work and family with a balanced configuration*, describes employees with low global levels of commitment to their work life, low specific levels of commitment to their family, and lower-than-average specific levels on all other targets. The relative size of this profile decreased between T1 (31.36%) and T2-T3 (T2: 22.18%, T3: 23.74%). Profile 3, which we labelled *Average commitment to work and family with a balanced configuration*, describes employees with slightly higher than average global levels of commitment to their work life and close to average specific levels of commitment to all other targets. The size of this profile increased over time (T1: 18.51%, T2: 41.66%, T3: 44.16%). Profile 4, which was labeled *Average commitment to work with an occupational orientation and a high commitment to the family*, describes employees characterized by slightly higher than average global levels of commitment to their work life and specific levels of commitment to their occupation and work team, and very high specific levels of commitment to their family. The relative size of this profile continuously decreased over time (T1: 34.35%, T2: 21.17%, T3: 16.74%). Profile 5, which we labeled *Moderately committed to work and the family, with an institutional orientation*, describes employees presenting moderately high global levels of commitment to their work life and specific levels of commitment to their organization, supervisor, and family, close to average specific levels of commitment to their work team, and slightly below average specific levels of commitment to their occupation. The relative size of this profile remained stable over time (T1: 6.65%, T2: 7.46%, T3: 5.99%). Finally, Profile 6, which we labelled *Highly committed to work and to the family with a workplace orientation*, describes employees displaying very high global levels of commitment to their work life, accompanied by moderately high specific levels of commitment to the organization, supervisor and family, slightly above average specific levels of commitment to their work team, and close to average specific levels of commitment to their occupation. This profile was slightly less extreme at T3 relative to T1 and T2. The relative size of this profile also remained stable over time (T1: 4.18%, T2: 2.60%, T3: 4.87%).

Latent Transition Analyses

Our final solution of partial dispersion similarity was converted to a LTA to assess within-person stability in profile membership. The transition probabilities from the LTA solution are reported in Table 3. These results first indicate that profile membership remained moderately to highly stable over time, with probability of corresponding to the same profile ranging from 46.4% to 74.6% from T1 and T2, and between 62.1% and 91.2% from T2 to T3. The only exception pertains to the stability of membership in Profile 6 between T1 and T2 (28.2%), although membership into this profile increased T2 and T3 (i.e., 67.1%). When we consider the main transitions for participants who did not stay in the same profile over time, it is interesting that most of the profile transitions occurring between T1 and T2 were toward

¹ The results (Table S7 of the online supplements) showed that within-profile variability decreased over time for some indicators in Profile 4, increased for some indicators in Profile 5 and increased slightly in Profile 5 and 6.

² As the relative size of the profiles sums to 100%, distributional similarity is an all-or-none matter. Although distributional similarity can be established for a subset of time points only, this was not the case in this study.

³ Profile indicators are factor scores from a bifactor model. Although these indicators can be interpreted as reflecting the same content (i.e., employees' commitment to specific targets), they are also more precise as they reflect what is truly unique to these targets, as they are scored in a way that explicitly reflects how they deviate from employees' scores on the global commitment factor. As such, a score of zero on these factors (i.e., corresponding to the sample average as these are estimated in standardized units) reflects a level of commitment to the specific target that is entirely aligned with employees' scores on the global factor, whereas positive (or negative) scores reflect a specific level of commitment that is higher (or lower) than their global scores.

Profile 3 (*Average commitment to work and family with a balanced configuration*). For instance, 56.6% of participants initially corresponding to Profile 6 at T1 transitioned to Profile 3 at T2. Similar figures were 34.2% for Profile 2, 37.9% for Profile 4, and 21.1% for Profile 4. However, transitions toward Profile 3 were not as frequent between T2 and T3. When they occurred, they were limited to employees from Profile 4 (*Average commitment to work with an occupational orientation and a high commitment to the family*) or 5 (*Moderately committed to work and the family, with an institutional orientation*) at T2, of whom 24.1% and 17.4% respectively transitioned to Profile 5 at T3. A second noteworthy transition involves Profile 4 (*Average commitment to work with an occupational orientation and a high commitment to the family*): originally corresponding to Profile 1, 5 and 6, 12%, 16.2% and 15.2% of participants, respectively, transitioned into Profile 4 at T2. From T2 to T3, 21.4% of participants belonging to Profile 6 and 15.9% of participants belonging to Profile 5 transitioned into Profile 4. A final noteworthy transition occurred for employees from Profile 1 (*Globally uncommitted to work and family, with a supervisor orientation*) who transitioned to Profile 2 (*Globally uncommitted to work and family with a balanced configuration*), 17% of the time between T1 and T2, and 22.9% of the time between T2 and T3.

Potential Controls

The results associated with the alternative models in which the potential controls were allowed to predict profile membership are reported in the middle section of Table 2. These results indicate that the null effect model resulted in the lowest values on all information criteria, consistent with a lack of relations between demographic variables and the likelihood of profile membership. This conclusion is consistent with the parameter estimates from the alternative solutions, which generally support a lack of systematic associations between these variables and participants' membership to commitment profiles. These variables were thus excluded from subsequent analyses.

Theoretical Predictors

The results from the main predictive models are reported in the bottom section of Table 2. These results support the superiority of the predictive similarity model, which resulted in the lowest values on all information criteria, consistent with the presence of significant associations between the predictors and participants' likelihood of profile membership that generalized over time. The results from this solution are reported in Table 4. The results first show that employees reporting higher global levels of need satisfaction at work were less likely to belong to Profile 1 (*Globally uncommitted to work and family, with a supervisor orientation*) relative to all other profiles, to Profile 2 (*Globally uncommitted to work and family with a balanced configuration*) relative to Profiles 3, 4, 5 and 6. In addition, these employees were also more likely to belong to Profile 6 (*Highly committed to work and to the family with a workplace orientation*) compared to 3 and 4, and to Profile 5 (*Moderately committed to work and the family, with an institutional orientation*) compared to Profile 3.

Second, employees reporting higher specific levels of competence satisfaction (reflecting an imbalance relative to their global levels) were more likely to belong to Profile 4 (*Average commitment to work with an occupational orientation and a high commitment to the family*) relative to Profiles 2 (*Globally uncommitted to work and family with a balanced configuration*), 3 (*Average commitment to work and family with a balanced configuration*) and 5 (*Moderately committed to work and the family, with an institutional orientation*). Third, employees reporting higher specific levels of relatedness satisfaction (i.e., an imbalance relative to their global levels) were less likely to correspond to Profile 2 (*Globally uncommitted to work and family with a balanced configuration*) relative to Profiles 3 to 6. Fourth, employees' specific levels of autonomy satisfaction did not predict profile membership.

Lastly, employees reporting higher levels of work meaningfulness were more likely to belong to Profile 6 (*Highly committed to work and to the family with a workplace orientation*) relative to all other profiles, less likely to belong to Profile 1 (*Globally uncommitted to work and family, with a supervisor orientation*) relative to Profiles 3, 4 and 5, and less likely to belong to Profile 2 (*Globally uncommitted to work and family with a balanced configuration*) relative to Profiles 3 (*Average commitment to work and family with a balanced configuration*) and 5 (*Moderately committed to work and the family, with an institutional orientation*).

Discussion

Despite the recognition that employees' commitment forms a complex system (Klein et al., 2022) encompassing a variety of targets (Klein et al., 2012; Morin et al., 2011a; Perreira et al., 2018), only a handful of studies have adopted a person-centered approach to examine how these multiple

commitments combine among employees characterized by commitment profiles. The present study sought to contribute to address this limitation in three different ways by: (a) relying on a comprehensive operationalization of work-related commitments anchored in Perreira et al.'s (2018; also see Meyer et al., 2021) hierarchical representation of commitments as encompassing both their global level of commitment to their work life, as well as their specific commitment to each unique target; (b) extending this consideration by focusing on the possible congruence or incongruence of commitments across the work and family domains (e.g., Loscher et al., 2023; Perreira et al., 2018); and (c) relying on a longitudinal approach allowing us to consider stability and change in these profiles in the context of the COVID-19 pandemic. Moreover, we also sought to address previous calls for research on the individual (e.g., Bergman & Jean, 2016; Wasti, 2003) and motivational (Hirschi & Spurk, 2021) antecedents of commitment, by considering the role played by psychological need satisfaction and work meaningfulness as potential predictors of employees' profile membership.

Characteristics of Commitment Profiles

Our results revealed that six profiles best summarized the various commitment configurations observed in our sample of employees, thus providing an answer to Research Question 1. Three of these profiles demonstrated similarities with profiles identified in previous studies (*Moderately committed to work and the family, with an institutional orientation*: Meyer et al., 2021; Morin et al., 2011a; Swailes, 2004; *Globally uncommitted to work and family with a balanced configuration*: Becker & Billings, 1993; Cooper et al., 2016; Morin et al., 2011a; Swailes, 2004; *Highly committed to work and to the family with a workplace orientation*: Becker & Billings, 1993; Morin et al., 2011a; Swailes, 2004). Even though a similar configuration has only been identified once before, it is noteworthy that a profile similar to our *Average commitment to work and family with a balanced configuration* profile was also observed in the sole previous studies relying on a proper disaggregation of employees' global and specific levels of commitment (Meyer et al., 2021). However, whereas Meyer et al. (2021) found more than one moderately committed profiles, each appearing to be somehow driven by at least one target of commitment, the single moderately committed profile identified in the present study displayed a balanced configuration of commitments. It would be interesting for future studies to verify the extent to which moderately committed employees retain specific ties to their workplace (as in Meyer et al., 2021), or whether a balanced configuration of commitments is more frequent among these employees (as in this study).

We also identified a *Globally uncommitted to work and family, with a supervisor orientation* profile, corresponding to employees' mainly driven by high specific levels of commitment to their supervisor. This profile shares some similarities with the globally uncommitted: people oriented (Meyer et al., 2021), globally uncommitted: citizens oriented (Meyer et al., 2021), or supervisor committed (Morin et al., 2011a; Swailes, 2004) profiles identified in previous research, but not entirely. For this reason, it would seem important for future research to investigate whether a similar profile would be replicated across new samples of employees. However, although the identification of a *Moderately committed to work and the family, with an institutional orientation* profile was consistent with the idea that some employees mainly see their supervisor as embodying the organization (Eisenberger et al., 2010), this new profile is also consistent with the idea that for many other employees, the supervisor is seen through the lens of a person-based (rather than a role-based) identity (Sluss & Ashforth, 2007). Finally, we identified an *Average commitment to work with an occupational orientation and a high commitment to the family* profile, in which employees were mainly driven by their high commitment to their family and, to a smaller extent, their occupation and work team. These findings match those reported by Loscher et al. (2023) who also identified profiles characterized by incongruent commitments across domains.

Relatedly, in response to Research Question 2, employees' commitment to their family played a critical role in the definition of five of the six profiles. This result is consistent with the importance of this life domain (e.g., Perreira et al., 2018) and consistent with previous observations that this target of commitment might have become more central for employees during the pandemic in and of itself (Shek, 2021) and as a potential buffer against some of the risks associated with the pandemic itself (e.g., mental health struggles or social disruptions; Prime et al., 2020). It would seem particularly interesting for future studies to replicate the present findings in a non-pandemic period to verify whether family life is indeed an always important commitment target, or if its centrality simply increased as a result of the pandemic. It would also be interesting to incorporate a multidimensional representation of nonwork

commitments (i.e., family, friends, leisure, etc.) to examine whether and how commitment profiles relate to one another across domains.

Coming back to the first theoretical issue highlighted by Meyer et al. (2021) related to whether the organization can be considered as a primary target of commitment playing a central role in profile definition, or simply one of many targets of commitment (Hunt & Morgan, 1994), our results support the latter possibility. Indeed, whereas the organization played a role in the definition of two profiles, this role was clearly not more pronounced than that of other targets (e.g., supervisor for three profiles). In this regard, our findings are in line with previous variable-centered (Perreira et al., 2018) and person-centered (Meyer et al., 2021) results in showcasing the preeminent role played by employees' global levels of commitment to their work life in general as a core driver of their commitment profiles.

Regarding the second theoretical issue highlighted by Meyer et al. (2021) focusing on the congruence or incongruence among the different commitment targets, our findings support both possibilities. More specifically, congruence was apparent between some targets in a subset of profiles (e.g., supervisor and organization in Profiles 5 and 6, but not in Profile 1). Likewise, two profiles displayed a balanced configuration, showcasing congruent commitments across targets. However, some of the profiles also suggest incongruence among specific targets of commitment. For example, Profiles 1, 5 and 6 showcased diverging levels of commitments toward the organization relative to the occupation. Likewise, Profile 1 displayed diverging levels of commitment toward the supervisor relative to the occupation. Beyond being consistent with the idea that some pairs of commitments can be incongruent for some employees, and congruent for others in a way that supports the value of person-centered analyses (Meyer et al., 2021), the specific conflicts identified are also consistent with those identified in previous research (supervisor/organization: Meyer et al., 2015; 2021; Morin et al., 2011a; occupation/organization: Cooper et al., 2016; Meyer et al., 2019).

Additionally, and in accordance with Loscher et al.'s (2023) results, our results also highlight the complex relationships between employees' commitment to their work life and family. In many profiles, we found evidence of convergence between these two domains of commitment. However, in one of our profiles, commitment to the family was substantially higher than commitment to all work-related targets, highlighting a high level of incongruence between these domains. These results are likely to be informative for further developments of commitment systems theory (Klein et al., 2022) by highlighting how unique commitment systems can be formed both by congruent and incongruent commitments across life domains.

Temporal Stability of Commitment Profiles

Partially supporting Hypothesis 1, our study identified the same number of profiles (configural similarity) which were not characterized by the exact same structure (structural similarity) across three measurement points taken at monthly intervals. More specifically, while the first five profiles retained the same structure over time, the shape of the sixth profile changed slightly by Time 3 (it became slightly less extreme). These results broadly support prior person-centered investigations showing that the number and, to a certain extent, the shape of the profiles remain quite stable over time (eight months: Kam et al., 2016; two years: Houle et al., 2020; four years: Xu & Payne, 2018).

However, in response to Research Question 3, we found changes in within-profile variability (partial dispersion similarity) over time in some of the profiles. More specifically, in the *Average commitment to work and family with a balanced configuration* profile, within-profile variability (reflecting the extent to which profile members are different vs. similar to one another) decreased from T2 to T3. This result suggests that participants belonging to this profile became more similar to one another over time (i.e., their commitment-related experiences tended to converge in the same direction). In contrast, in three other profiles (*Average commitment to work with an occupational orientation and a high commitment to the family*, *Moderately committed to work and the family, with an institutional orientation*, *Highly committed to work and to the family with a workplace orientation*), within-profile variability increased, although this increase was minimal for the last two profiles.

Still in response to Research Question 3, our results indicated that the relative size of the profiles changed over time. Examining the profile sizes more closely reveals that there was very little sample size fluctuation for the *Globally uncommitted to work and family, with a supervisor orientation*, the *Moderately committed to work and the family, with an institutional orientation*, and the *Highly committed to work and to the family with a workplace orientation* profiles. In contrast, the size of the *Average commitment to work and family with a balanced configuration* profile increased over time

(particularly between T1 and T2), while that of the *Globally uncommitted to work and family with a balanced configuration* and *Average commitment to work with an occupational orientation and a high commitment to the family* profile decreased over time (from T1 to T3). These trends suggest that it might be harder to maintain an uncommitted and balanced configuration than one marked by more specific commitments over time, particularly in the presence of external changes. In contrast, a balanced configuration seems easier to maintain when it is also average. Lastly, it might be difficult to maintain a configuration which is primarily driven by the commitment to the family life when it is not also accompanied by matching commitments to work-related targets. The average commitment profile with a balanced configuration seems to be particularly important as it was found to characterize almost half of the sample by T2 and T3. This observation suggests that for many employees, work life is neither characterized by strong, nor weak, commitments, allowing them to routinely proceed with their work life. A similar “normative” (i.e., large and average) profile of employees has often been identified in research on psychological health and well-being, or similar affective states, at work (e.g., Gillet et al., 2019; Huyghebaert-Zouaghi et al., 2022; Morin et al., 2016a, 2017; Sandrin et al., 2020). Overall, observing changes in the size of the profiles should not come as a surprise given how strongly the COVID-19 pandemic disrupted work processes, and suggests that the work-related disruptions might have influenced the malleability of employees’ commitments.

To better understand how these sample-level changes translate to individual changes, specific profile transitions occurring at the individual level need to be considered. In this regard, and partially supporting Hypothesis 2, our results revealed moderate-to-high levels of within-person stability in profile membership over time for five out of six profiles, suggesting that most employees retained their commitment profile over the study period. The exception was the *Highly committed to work and to the family with a workplace orientation* profile which only demonstrated low stability rates between T1 and T2. This low stability rate is reasonable as more than half of the employees from this profile at T1 transitioned into the average-balanced profile at T2. Overall, these observations are consistent with the idea that commitments tend to be reasonably stable (Mowday et al., 1982), reflecting a relatively enduring psychological construct (Gellatly et al., 2006). However, consistent with the malleability of the psychological contract (Klein et al., 2012), our results also indicated that more transitions occurred between T1 and T2 than between T2 and T3. Also matching our previous observations, most profile transitions seem to involve the *Average commitment to work and family with a balanced configuration* and *Average commitment to work with an occupational orientation and a high commitment to the family* profiles. Importantly, many of the observed transitions occurred toward a profile characterized by average levels of commitments. Contrary to the descriptive commitment changes during the earlier stages of the COVID-19 pandemic (Prochazka et al., 2020), employees might have sought to balance their commitments to multiple targets due to the specific circumstances created by the pandemic. These circumstances might have made it harder to maintain specific commitments to some social targets with whom employees progressively lost “live” contact. However, beyond this observation, profile membership remained reasonably stable and, even though a majority of transitions were toward less committed profiles, opposite transitions also occurred, indicating that change is possible.

Key Drivers of Commitment Profiles

Answering the call for additional research on the individual antecedents of commitment (e.g., Bergman & Jean, 2016; Wasti, 2003), our last objective was to document the role of two theoretically relevant sets of individual predictors of profile membership (i.e., basic psychological need satisfaction and work meaningfulness). Given that need satisfaction, just like commitment, is known to present dual global/specific components (e.g., Gillet et al., 2019), the present study also provides a novel contribution by documenting how both global and specific levels (interpreted as imbalances relative to the global levels) of need satisfaction contributed to profile membership.

Global Need Satisfaction. Partially supporting Hypothesis 3, our results showed that high global levels of need satisfaction predicted an increased likelihood of membership into profiles characterized by higher global levels of commitment. These results align with previous research highlighting the presence of positive associations between commitment and need satisfaction (e.g., Falvo et al., 2016; Tang & Vandenberghe, 2020a), as well as the important benefits associated with global levels of need satisfaction (Gillet et al., 2019, 2020; Sánchez-Oliva et al., 2017; Tóth-Király et al., 2019). Thus, as suggested by SDT (Ryan & Deci, 2017), employees experiencing a global satisfaction of their basic psychological needs appear more likely to function optimally at their workplace, allowing them to

develop positive ties with a variety of work-related entities (Eisenberger et al., 2001). These results thus suggest that fostering high levels of need satisfaction should be an imperative for organizations seeking to nurture more desirable commitment profiles.

Specific Need Satisfaction. Further supporting Hypothesis 3 and answering Research Question 4 our results showed that, beyond the benefits of employees' global levels of need satisfaction, the satisfaction of their specific needs for competence and relatedness also shared significant associations with profile membership. More specifically, experiencing high specific levels of competence need satisfaction (beyond global levels of need satisfaction) predicted a higher likelihood of membership into the *Average commitment to work with an occupational orientation and a high commitment to the family* profile relative to *Globally Uncommitted: Supervisor Oriented*, the *Globally Uncommitted: Balanced*, and the *Moderately Committed: Balanced* profiles. Observing effects uniquely associated with the need for competence is not surprising, as various studies have highlighted the importance of this specific need in the work context (Sánchez-Oliva et al., 2017; Tóth-Király et al., 2019).

To clearly understand this effect, it is important to keep in mind that specific levels of competence satisfaction reflect an imbalance in the extent to which a need is satisfied relative to all other needs (i.e., beyond employees' global levels of need satisfaction). For the need for competence, higher than average specific levels might thus reflect a feeling of overqualification, which could theoretically reduce employees' general commitment to their work life and lead them to consider seeing alternative employment opportunities better suited to their competencies (Van den Broeck et al., 2016). Another possibility might be that instead of being committed to their work, these employees might have become more committed toward other non-work-related spheres, such as their families. This interpretation matches recent studies arguing for the increased centrality of the family context during the pandemic (Prime et al., 2020; Shek, 2021). Similarly, these results might also reflect the too-much-of-a-good-thing phenomenon (e.g., Kibatta & Samuel, 2022; Newman et al., 2019; Pierce & Aguinis, 2013) according to which the benefits of many variables (i.e., feeling competent) reach an inflection point after which its outcome associations become unfavorable. Perhaps more importantly, specific levels of competence need satisfaction were not found to share any relation with employees' likelihood of membership into the most desirable *Highly committed to work and to the family with a workplace orientation* and the *Globally uncommitted to work and family, with a supervisor orientation* profiles. Regardless, future studies are needed to verify these possible explanations.

Previous studies have shown that feelings of loneliness at work were related to poor performance (Ozcelik & Barsade, 2011) and well-being (Mohapatra et al., 2023). These negative consequences might develop more quickly in a remote work environment (i.e., resulting from the COVID-19 pandemic) where employees have little-to-no opportunities for live social interactions with their colleagues, thus making the need for relatedness possibly more important in this context. In this case, the consequences of telework (i.e., lack of social connections), rather than telework itself, could possibly have an effect on employees' commitment profiles. Matching these previous findings, our results supported the importance of specific levels of relatedness need satisfaction, which were found to decrease employees' likelihood of membership into the *Globally uncommitted to work and family with a balanced configuration* profile. Interestingly, this was the only profile not characterized by any type of social commitment (i.e., supervisor, work team or family), suggesting that the presence of need-fulfilling social relationships at work might help employees develop and maintain a more optimal commitment configuration characterized by some social connections. Alternatively, this association between relatedness satisfaction and profile membership could also have been driven by family commitment, which is another important source of social connection.

Work Meaningfulness. Supporting Hypothesis 4 without addressing our Research Question 5, our results showed that perceiving their work to be meaningful increased employees' likelihood of membership into profiles characterized by moderate-to-high global levels of commitment. These results are consistent with previous research evidence supporting positive associations between various types of commitment and work meaningfulness (e.g., Steger et al., 2012; Usman et al., 2021), and clearly suggest that these associations seem to be mainly driven by employees' global levels of commitment to their work life. To explain these results, the Job Characteristics Model (Hackman & Oldham, 1976) suggests that when they perceive their work as meaningful, employees should develop a deeper understanding of their work, their organization, and their place within this organization. Via this more nuanced understanding, employees might be better positioned to develop a stronger emotional bond

(i.e., commitment) with their work life (Steger & Dik, 2010).

Unexpected Results. Although most of our results were aligned with Hypotheses 3 and 4, two unexpected results also emerged to inform Research Questions 4 and 5. More precisely, when comparing the two globally uncommitted profiles, we found that higher global levels of need satisfaction predicted a higher likelihood of membership into the *Globally uncommitted to work and family, with a supervisor orientation* profile as opposed to the *Globally uncommitted to work and family with a balanced configuration* profile. Since global levels of commitment were equally low for both profiles, these results can be attributed to the specific levels of commitment observed in these profiles. In this regard, although employee's specific levels of commitment to their supervisor were higher in the former profile, their specific levels of commitment to several other targets (i.e., the occupation and the work team) were also lower. This unexpected result may be explained by the possibility that employees experiencing higher global levels of need satisfaction might have developed stronger commitments to various constituencies in an undifferentiated manner (rather than with a specific focus on the supervisor), thus making them more likely to match the *Globally uncommitted to work and family with a balanced configuration* profile than the *Globally uncommitted to work and family, with a supervisor orientation* profile. Naturally, these interpretations should be treated with caution, and we encourage future studies to test the replicability of these findings and to examine the psychological mechanisms underpinning these unexpected associations more thoroughly.

Limitations

Whilst our study contributed to help us achieve a more in-depth understanding of the joint effects of global and specific components of work-related commitments and family commitment, as well as of their longitudinal stability and predictors, it has limitations that need to be mentioned. First, this study relied on self-reported data, which might be affected by a variety of biases (e.g., social desirability, self-consistency) which might have interfered to identify all possible profiles truly present in the workplace. Another limitation stems from our reliance on a sample of Canadian employees which limits the generalizability of our findings to other, particularly non-Western, populations. Additionally, the unique empirical setting created by the COVID-19 pandemic could have influenced the nature of the commitment profiles identified in this study, for instance by increasing the centrality of the family as a target of commitment (Shek, 2021), thus inflating the role of this domain in the definition of the profiles, but also by decreasing the saliency of targets present in the workplace (due to remote work). Because the inclusion of family commitment as a non-work-related commitment target is a novel contribution of this study, we felt that capitalizing on these unique circumstances would help us better capture the unique role of this work domain. However, replication efforts are warranted to document the impact of these unique circumstances on our results. Moreover, the number of selected predictors considered in this study remains limited, and thus fails to cover all possible work- and family- related determinants of commitment profiles. In this regard, it is noteworthy that changes occurring over time in job characteristics (e.g., controls) or to our predictors during the COVID-19 pandemic may have followed a timeframe (e.g., weekly) different from that used in this study (e.g., monthly), which might have reduced the ability to detect its effects. Lastly, our failure to consider any possible outcomes of these profiles also limits the ability to clearly capture the relative desirability, for organizations and their employees, of these profiles.

Future Directions

It would be important for future studies to consider taking action to address the limitations of the present investigation. First, even though our longitudinal design alleviates some concerns related to the use of self-reported data, and although multivariate analyses (i.e., analyses including multiple predictors; Siemsen et al., 2010), including person-centered analyses (Meyer & Morin, 2016), are known to be immune to common method bias, future studies should expand on the present work by using multi-informant (e.g., ratings from colleagues or supervisors) and objective (e.g., performance, absenteeism) data. Future studies should also consider examining how employees' multi-target commitment profiles predict both internally (e.g., self-reported indicators of well-being or functioning) and externally (e.g., job performance, absenteeism, or turnover) rated outcomes. Future replication efforts, relying on more diversified samples of employees from various countries, are also needed in order to better "contextualize" these commitment profiles (Wasti et al., 2016) and to investigate commonalities and differences in the nature of these profiles.

Given the unique context created by the COVID-19 pandemic, it would seem important for

replication efforts to be conducted to assess whether and how our results would generalize to more regular time periods, to different time lags, as well as to other types of organizational (e.g., organizational change, restructuring, layoffs), professional (e.g., promotion, change in occupation) and personal (e.g., birth of a first child, marriage, divorce) events. It would also be interesting for these future studies to consider the role played by a wider range of predictors (e.g., socialization experiences, leadership styles, job demands and resources, change in family circumstances), as well as outcomes (e.g., well-being, work-family interface, performance). In this regard, specific attention should be paid to family-related antecedents and outcomes to expand the present results to a wider range of variables central to the work-home functioning of employees with different profiles. Ideally, these variables could match one another across domains (e.g., work and family demands, work and family satisfaction). Future studies should also explore other non-work-related commitments (e.g., friends or community) to see how they interact with work-related commitments (Perreira et al., 2018).

Lastly, in terms of analytical developments, it might be interesting for future studies to rely on random intercept latent transition analytic models (Muthén & Asparouhov, 2022) to directly estimate the part of one's commitment profile that changes over time, or on more advanced dynamic methodologies connected to general systems theory in order to directly assess the relevance of commitment systems theory (Klein et al., 2022) for our understanding of commitment.

Practical Implications

Our findings have implications for organizations and managers. First, the examination of the stability of profiles highlights that although the profiles are relatively stable, they also possess a degree of malleability, suggesting that room exists for building efficient interventions targeting change in commitment. Second, our results suggest the potential value of distinct selective (targeted at specific profiles of employees) and universal (targeted at all employees) intervention strategies. More generally, the person-centered approach relies on the idea that intervention efforts seeking to encourage the development of more desirable commitment profiles is preferable than piecemeal strategies focused on nurturing isolated targets of commitment while neglecting the others. Person-centered interventions should thus focus on changing employees' overarching commitment system rather than attempting to modify its individual components (i.e., the different commitment targets taken in isolation) (Klein et al., 2022). For example, selective intervention strategies might target employees displaying a general lack of commitment across most targets (i.e., *Globally uncommitted to work and family, with a supervisor orientation; Globally uncommitted to work and family with a balanced configuration*) to help them develop more desirable commitment profiles by seeking to nurture a global attachment to their work life in general. This could be done through techniques that foster positive emotions such as mindfulness or positive psychology interventions. Indeed, the affective underpinning of commitment likely generalizes across targets (Morin et al., 2011a). Similarly, universal intervention strategies might seek to foster the emergence of higher global levels of commitment to the work life across multiple targets among all employees (trying to help employees develop an affective bond to their work life in general). This could be done by promoting work values (e.g., personal growth and development) encouraging employees to commit to all work life targets.

Third, our results also suggest that universal strategies seeking to create and maintain a work environment that is globally supportive of employees' basic needs for autonomy (via autonomy support), competence (via structure and optimal challenges) and relatedness (via involvement) might be a promising way to maintain the most desirable commitment profiles (Ryan & Deci, 2017). Fortunately, SDT is anchored in a long tradition of intervention research which has helped document which types of interventions are likely to be most effective at supporting need satisfaction (for reviews, see Cerasoli et al., 2016; Ryan et al., 2023; Slemp et al., 2018, 2021; Su & Reeve, 2011), leading to relatively clear practical recommendations for organizations (Gagné et al., 2022). Lastly, similar universal intervention efforts could be used to increase perceptions of work meaningfulness among employees as another way to encourage the development of profiles characterized by higher global levels of commitment to the work life. To achieve this goal, organizations may wish to implement goal framing (Hardre & Reeve, 2003) and meaningfulness (Fletcher & Schofield, 2021) interventions that have already been shown to be effective.

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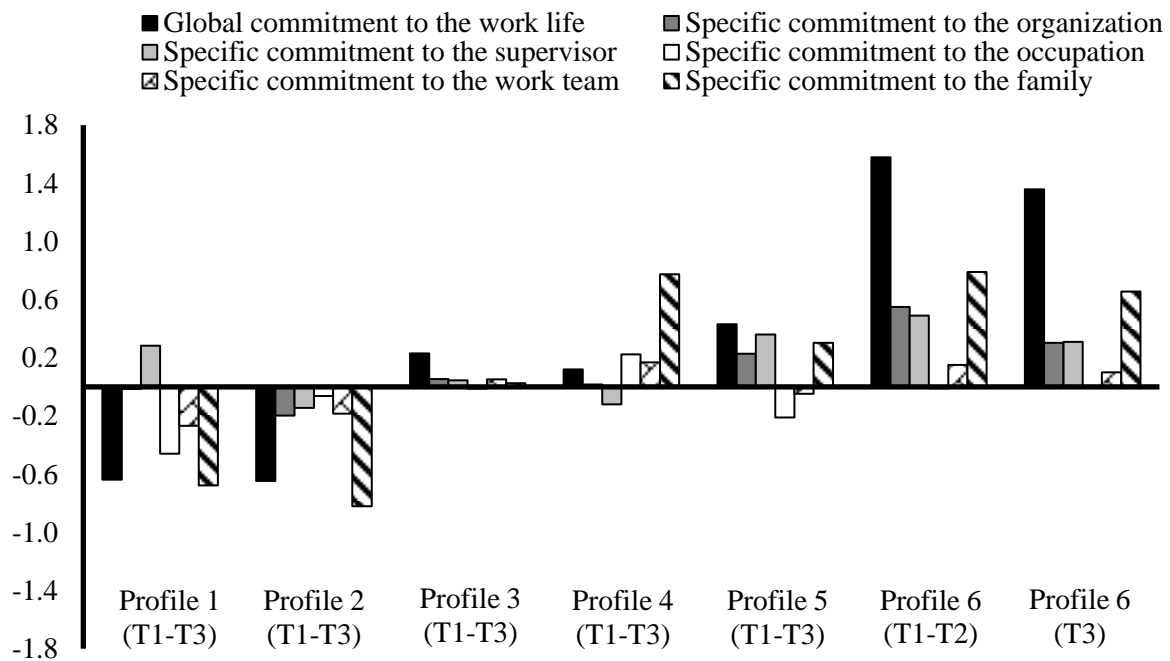
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Figure 1
Final Six-Profile Solution



Note. Profile indicators were standardized factor scores ($M = 0$; $SD = 1$) from preliminary measurement models. Profile 1: Globally uncommitted to work and family, with a supervisor orientation; Profile 2: Globally uncommitted to work and family with a balanced configuration; Profile 3: Average commitment to work and family with a balanced configuration; Profile 4: Average commitment to work with an occupational orientation and a high commitment to the family; Profile 5: Moderately committed to work and the family, with an institutional orientation; Profile 6: Highly committed to work and to the family with a workplace orientation.

Table 1*Fit Statistics for the Time-Specific Latent Profile Analyses*

Model	LL	fp	Scaling	AIC	CAIC	BIC	SSABIC	Entropy	aLMR	BLRT
<i>Latent Profile Analysis (Time 1)</i>										
1 Profile	-11540.742	12	1.507	23105.483	23180.910	23168.910	23130.789	Na	Na	Na
2 Profiles	-9859.807	25	1.552	19769.615	19926.752	19901.752	19822.335	.924	< .001	< .001
3 Profiles	-9148.589	38	1.419	18373.177	18612.026	18574.026	18453.312	.956	< .001	< .001
4 Profiles	-8595.024	51	1.205	17292.047	17612.608	17561.608	17399.597	.883	< .001	< .001
5 Profiles	-8122.231	64	1.214	16372.462	16774.735	16710.735	16507.427	.901	< .001	< .001
6 Profiles	-7792.488	77	1.262	15738.975	16222.959	16145.959	15901.355	.910	< .001	< .001
7 Profiles	-7598.888	90	1.220	15377.776	15943.472	15853.472	15567.570	.898	< .001	< .001
8 Profiles	-7505.883	103	1.279	15217.765	15865.173	15762.173	15434.974	.866	< .001	< .001
<i>Latent Profile Analysis (Time 2)</i>										
1 Profile	-10354.177	12	1.854	20732.353	20807.779	20795.779	20757.659	Na	Na	Na
2 Profiles	-9109.357	25	1.408	18268.713	18425.851	18400.851	18321.434	.759	< .001	< .001
3 Profiles	-8370.815	38	1.315	16817.629	17056.478	17018.478	16897.764	.837	< .001	< .001
4 Profiles	-7951.509	51	1.449	16005.018	16325.579	16274.579	16112.568	.865	.016	< .001
5 Profiles	-7572.140	64	1.254	15272.281	15674.553	15610.553	15407.245	.850	< .001	< .001
6 Profiles	-7370.330	77	1.249	14894.660	15378.644	15301.644	15057.039	.843	< .001	< .001
7 Profiles	-7163.435	90	1.283	14506.870	15072.565	14982.565	14696.664	.854	.056	< .001
8 Profiles	-6993.298	103	1.359	14192.596	14840.003	14737.003	14409.805	.859	.013	< .001
<i>Latent Profile Analysis (Time 3)</i>										
1 Profile	-9852.455	12	1.708	19728.910	19804.336	19792.336	19754.216	Na	Na	Na
2 Profiles	-8719.811	25	1.452	17489.621	17646.759	17621.759	17542.342	.754	< .001	< .001
3 Profiles	-8206.772	38	1.344	16489.543	16728.393	16690.393	16569.679	.819	< .001	< .001
4 Profiles	-7814.049	51	1.309	15730.098	16050.658	15999.658	15837.648	.826	< .001	< .001
5 Profiles	-7546.639	64	1.227	15221.278	15623.550	15559.550	15356.242	.843	< .001	< .001
6 Profiles	-7287.963	77	1.290	14729.927	15213.911	15136.911	14892.306	.866	.001	< .001
7 Profiles	-7096.681	90	1.175	14373.363	14939.058	14849.058	14563.157	.842	< .001	< .001
8 Profiles	-6996.606	103	1.171	14199.211	14846.618	14743.618	14416.420	.850	< .001	< .001

Note. LL: loglikelihood; fp: number of free parameters; AIC: Akaike Information Criterion; CAIC: constant AIC; BIC: Bayesian Information Criterion; SSABIC: Sample-Size Adjusted BIC; aLMR: p-value associated with the adjusted Lo-Mendell-Rubin likelihood ratio test; BLRT: Bootstrap Likelihood Ratio Test; NA: Not Applicable.

Table 2*Fit Statistics for the Tests of Profile Similarity and the Latent Transition Analyses*

Model	LL	fp	Scaling	AIC	CAIC	BIC	SSABIC	Entropy
<i>Tests of Profile Similarity</i>								
Configural similarity	-22721.757	231	1.345	45905.514	47357.466	47126.466	46392.652	.862
Structural similarity	-23027.928	159	1.444	46373.856	47373.252	47214.252	46709.159	.860
Partial structural similarity	-22933.628	165	1.501	46197.257	47234.365	47069.365	46545.212	.867
Dispersion similarity	-23405.423	93	1.617	46996.847	47581.399	47488.399	47192.967	.876
Partial dispersion similarity	-23094.290	117	1.534	46422.580	47157.984	47040.984	46669.312	.883
Distributional similarity	-23147.445	107	1.608	46508.890	47181.439	47074.439	46734.534	.882
<i>Latent Transition Analysis with Demographics</i>								
Effects free across time points and profiles	-15069.530	542	0.610	31223.060	34629.804	34087.804	32366.042	.909
Effects free across time points	-15254.091	182	0.939	30872.183	32016.145	31834.145	31255.989	.891
Predictive similarity	-15292.006	122	0.907	30828.013	31594.844	31472.844	31085.289	.886
Null effects model	-15344.686	92	0.836	30873.373	31451.640	31359.640	31067.385	.885
<i>Latent Transition Analysis with Predictors</i>								
Effects free across time points and profiles	-18560.901	575	1.040	38271.803	41885.969	41310.969	39484.376	.903
Effects free across time points	-18766.070	275	1.537	38082.070	39810.653	39535.653	38662.065	.886
Predictive similarity	-18792.426	225	1.654	38034.853	39449.092	39224.092	38509.338	.884
Null effects model	-19070.053	200	1.712	38540.105	39797.206	39597.206	38961.870	.886

Note. LL: loglikelihood; fp: number of free parameters; AIC: Akaike Information Criterion; CAIC: constant AIC; BIC: Bayesian Information Criterion; SSABIC: Sample-Size Adjusted BIC; NA: Not Applicable.

Table 3*Transition Probabilities for the Final Latent Transition Analysis Model*

Time 1 profiles	Relative size	Transition Probabilities to Time 2 Profiles					
		Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6
Profile 1	4.95%	.614	.170	.088	.120	.008	.000
Profile 2	31.36%	.026	.565	.342	.059	.008	.000
Profile 3	18.51%	.029	.093	.746	.055	.073	.004
Profile 4	34.35%	.016	.048	.379	.464	.053	.039
Profile 5	6.65%	.010	.038	.217	.162	.574	.000
Profile 6	4.18%	.000	.000	.566	.152	.000	.282
Time 2 profiles	Relative size	Transition Probabilities to Time 3 Profiles					
		Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6
Profile 1	4.95%	.665	.229	.067	.040	.000	.000
Profile 2	22.18%	.037	.912	.005	.041	.005	.000
Profile 3	41.66%	.006	.014	.887	.019	.010	.064
Profile 4	21.17%	.007	.073	.241	.621	.037	.020
Profile 5	7.46%	.000	.031	.174	.159	.636	.000
Profile 6	2.60%	.000	.000	.089	.214	.027	.671
Relative size		4.51%	23.74%	44.16%	16.74%	5.99%	4.87%

Note. Profile 1: Globally uncommitted to work and family, with a supervisor orientation; Profile 2: Globally uncommitted to work and family with a balanced configuration; Profile 3: Average commitment to work and family with a balanced configuration; Profile 4: Average commitment to work with an occupational orientation and a high commitment to the family; Profile 5: Moderately committed to work and the family, with an institutional orientation; Profile 6: Highly committed to work and to the family with a workplace orientation.

Table 4*Results from the Multinomial Logistic Regressions Evaluating the Relations between Predictors and Profile Membership*

	Profile 1 vs. Profile 2		Profile 1 vs. Profile 3		Profile 1 vs. Profile 4		Profile 1 vs. Profile 5		Profile 1 vs. Profile 6	
	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR
Global need satisfaction	-.229 (.097)*	.795	-.839 (.113)**	.432	-.910 (.120)**	.403	-1.122 (.158)**	.326	-1.853 (.390)**	.157
Specific autonomy satisfaction	.151 (.156)	1.163	.252 (.159)	1.287	.121 (.167)	1.129	.191 (.204)	1.210	-.447 (.381)	.640
Specific competence satisfaction	.040 (.145)	1.041	.177 (.154)	1.194	-.291 (.167)	.748	.266 (.192)	1.305	.025 (.331)	1.025
Specific relatedness satisfaction	.259 (.142)	1.296	-.075 (.147)	.928	-.058 (.149)	.944	-.130 (.166)	.878	-.456 (.248)	.634
Meaningfulness	-.236 (.128)	.790	-.503 (.134)**	.605	-.382 (.137)**	.682	-.506 (.168)**	.603	-1.399 (.369)**	.247
	Profile 2 vs. Profile 3		Profile 2 vs. Profile 4		Profile 2 vs. Profile 5		Profile 2 vs. Profile 6		Profile 3 vs. Profile 4	
	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR
Global need satisfaction	-.609 (.086)**	.544	-.680 (.095)**	.507	-.893 (.141)**	.409	-1.623 (.383)**	.197	-.071 (.087)	.931
Specific autonomy satisfaction	.100 (.100)	1.105	-.031 (.116)	.969	.040 (.166)	1.041	-.598 (.363)	.550	-.131 (.106)	.877
Specific competence satisfaction	.137 (.111)	1.147	-.331 (.123)**	.718	.226 (.157)	1.254	-.015 (.313)	.985	-.468 (.116)**	.626
Specific relatedness satisfaction	-.334 (.082)**	.716	-.317 (.087)**	.728	-.389 (.113)**	.678	-.715 (.216)**	.489	.017 (.080)	1.017
Meaningfulness	-.267 (.086)**	.766	-.146 (.088)	.864	-.270 (.133)*	.763	-1.163 (.353)**	.313	.121 (.076)	1.129
	Profile 3 vs. Profile 5		Profile 3 vs. Profile 6		Profile 4 vs. Profile 5		Profile 4 vs. Profile 6		Profile 5 vs. Profile 6	
	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR	Coeff. (SE)	OR
Global need satisfaction	-.283 (.137)*	.754	-1.014 (.370)**	.363	-.212 (.141)	.809	-.943 (.373)*	.389	-.731 (.385)	.481
Specific autonomy satisfaction	-.060 (.161)	.942	-.699 (.356)	.497	.071 (.161)	1.074	-.568 (.357)	.567	-.638 (.376)	.528
Specific competence satisfaction	.089 (.150)	1.093	-.152 (.305)	.859	.557 (.156)**	1.745	.316 (.307)	1.372	-.241 (.322)	.786
Specific relatedness satisfaction	-.055 (.107)	.946	-.381 (.209)	.683	-.072 (.110)	.931	-.398 (.212)	.672	-.326 (.223)	.722
Meaningfulness	-.003 (.126)	.997	-.896 (.346)*	.408	-.123 (.127)	.884	-1.017 (.347)**	.362	-.893 (.359)*	.409

Note. * $p < .05$, ** $p < .01$; Predictors are standardized factor scores ($M = 0$, $SD = 1$); Profile 1: Globally uncommitted to work and family, with a supervisor orientation; Profile 2: Globally uncommitted to work and family with a balanced configuration; Profile 3: Average commitment to work and family with a balanced configuration; Profile 4: Average commitment to work with an occupational orientation and a high commitment to the family; Profile 5: Moderately committed to work and the family, with an institutional orientation; Profile 6: Highly committed to work and to the family with a workplace orientation; SE: standard error of the coefficient; OR: odds ratio. The coefficients and OR reflects the effects of the predictors on the likelihood of membership into the first listed profile relative to the second listed profile.

Online Supplements for:

**Nature, Stability and Determinants of Multi-Target Commitment Profiles: A Longitudinal
Person-Centered Approach**

Appendix 1

Preliminary Measurement Models

Analyses

Model Specification

A series of preliminary measurement models were estimated to verify the psychometric properties of our measures, as well as to obtain factor scores for our main analyses. When compared to manifest scale scores (i.e., the sum or the average of the items forming a scale), factor scores preserve the nature of the underlying measurement model (e.g., bifactor, invariance; Morin et al., 2016c, 2016d, 2017) and afford a partial control for unreliability (Skrondal & Laake, 2001).

Commitment was operationalized via a bifactor confirmatory factor analyses (CFA), matching Perreira et al.' (2018) hierarchical model of commitment (also see Meyer et al., 2021). All commitment items were used to estimate a global (G-) factor reflecting employees' global levels of commitment to their work life. Beyond this G-factor, items were also used to estimate non-redundant (i.e., orthogonal, uncorrelated) specific (S-) factors reflecting their commitment uniquely directed to each target (i.e., organization, supervisor, occupation, and team) once the G-factor is taken into account (Morin et al., 2020; Perreira et al., 2018). As Perreira et al. (2018) suggested that out-of-work commitments should be theoretically distinct from work-related commitments, family commitment was modeled as a distinct factor that did not load on the G-factor but was allowed to correlate with all other commitment targets. Given that commitment to all targets were assessed using the same four items, *a priori* correlated uniquenesses (CUs) were integrated to the model to account for the parallel wording of these items (Morin et al., 2020).

For the predictors, we relied on a combination of bifactor-CFA and classical CFA representations of employees' need satisfaction and work meaningfulness, respectively. Indeed, emerging research evidence (Gillet et al., 2019, 2020a, 2020b; Sánchez-Oliva et al., 2017; Tóth-Király et al., 2018, 2019) has provided strong support for the superiority of a bifactor representation of need satisfaction involving the disaggregation of employees' global levels of need satisfaction across all three needs from the specific satisfaction of their needs for autonomy, competence and relatedness left unexplained by these global levels. These specific factors are generally interpreted as reflecting an imbalanced level in the satisfaction of each need relative to these global levels (Gillet et al., 2019, 2020a, 2020b). Thus, similar to the commitment measurement model, need satisfaction items were simultaneously used to define a need satisfaction G-factor and their corresponding S-factors. Meaningfulness, in contrast, was represented using a single factor CFA solution in which items loaded solely on one *a priori* factor.

To ascertain that the definition of the constructs remained unchanged over time, tests of longitudinal measurement invariance were performed separately for commitment and the predictor models. These tests were performed in the following sequence (Millsap, 2011): (1) configural invariance (same factor structure), (2) weak invariance (same factor loadings), (3) strong invariance (same factor loadings and intercepts), (4) strict invariance (same factor loadings, intercepts and uniquenesses); (5) invariance of correlated uniquenesses (same factor loadings, intercepts, uniquenesses and correlated uniquenesses; this step was only relevant to tests of invariance of the commitment model); (6) invariance of the latent variance-covariance matrix (same factor loadings, intercepts, uniquenesses, factor variances and factor covariances); and (7) latent means invariance (same factor loadings, intercepts, uniquenesses, factor variances, factor covariances and factor means). *A priori* correlated uniquenesses were added between matching indicators over time to avoid inflated estimates of stability (Marsh, 2007).

Model Evaluation

Measurement models were evaluated using typical goodness-of-fit indices (Hu & Bentler, 1999; Marsh et al., 2005): The chi-square test of exact fit (χ^2), the comparative fit index (CFI), the Tucker-Lewis Index (TLI), and the root mean square error of approximation (RMSEA). CFI and TLI values are considered to be adequate or excellent when they are above .90 and .95, respectively. RMSEA values are considered to be adequate or excellent below .08 and .06, respectively. As the chi-square test is known to be oversensitive to minor model misspecifications and sample size (Marsh et al., 2005), it is simply reported for the sake of transparency, but not used in model evaluation. Nested models' comparisons in tests of measurement invariance were based on examination of changes (Δ) in fit indices where a decrease of $\geq .010$ on the CFI and TLI and an increase of $\geq .015$ on the RMSEA reveal a lack of invariance (Chen, 2007; Cheung & Rensvold, 2002). For all models, we report the composite reliability of the factors (ω ; McDonald, 1970; Morin et al., 2020).

Results

The results associated with the commitment measurement models are reported in Table S3 of these supplements. All of the time-specific measurement models displayed an excellent fit to the data, and the results also supported the complete measurement invariance of this solution over time ($\Delta\text{CFI}/\text{TLI} \leq .010$, $\Delta\text{RMSEA} \leq .015$). The final parameter estimates from the most invariant solution (i.e., latent mean invariance) are reported in Table S4 of these supplements. These results first revealed a reliable ($\omega = .983$) G-factor reflecting employees' global levels of commitment to their work-life that was well-defined by all of the work-related targets of commitment ($\lambda = .651$ to $.800$; $M = .733$). In addition, all work-related commitment S-factors retained moderate-to-high levels of specificity once the G-factor was taken into account: Organization ($\lambda = .533$ to $.634$, $M = .594$, $\omega = .896$), supervisor ($\lambda = .541$ to $.588$, $M = .565$, $\omega = .914$), occupation ($\lambda = .407$ to $.547$, $M = .484$, $\omega = .875$), and team ($\lambda = .543$ to $.588$, $M = .563$, $\omega = .869$). Without surprise, the family factor retained the highest specificity ($\lambda = .910$ to $.960$, $M = .938$, $\omega = .965$) and demonstrated low and mostly non-significant associations with the other commitment targets ($r = .039$ to $.289$, $M = .154$), consistent with the distinctive (i.e., not work-related) nature of this commitment target (Perreira et al., 2018). Factor scores were saved from this latent mean invariant model and used as input for the main analyses.

The results associated with the predictors measurement models are also reported in Table S3 of these supplements. All of the time-specific measurement models displayed an acceptable fit to the data, and the results also supported the complete measurement invariance of this solution over time ($\Delta\text{CFI}/\text{TLI} \leq .010$, $\Delta\text{RMSEA} \leq .015$). The final parameter estimates from the most invariant solution (i.e., latent mean invariance) are reported in Table S5 of these supplements. These results first reveal a strongly defined global need satisfaction G-factor ($\lambda = .487$ to $.805$, $M = .715$, $\omega = .955$), accompanied by similarly well-defined autonomy satisfaction S-factor ($\lambda = .447$ to $.526$, $M = .473$, $\omega = .818$), competence satisfaction S-factor ($\lambda = .419$ to $.533$, $M = .460$, $\omega = .823$), relatedness satisfaction S-factor ($\lambda = .380$ to $.731$, $M = .591$, $\omega = .848$), and work meaningfulness standalone factor ($\lambda = .867$ to $.942$, $M = .904$, $\omega = .957$). Factor scores were saved from this model for the main analyses. Correlations among these factor scores are reported in Table S6 of these supplements.

Appendix 2

Sequence of Tests Involving the Profile Predictors

To verify the associations between the profiles and the predictors, a sequence of four models were estimated and compared. In the first model, the associations between the demographics and employees' likelihood of membership into the various profiles was allowed to differ across time points, and the predictions of their likelihood of membership into the T2 and T3 profiles was allowed to vary as a function of their membership into the T1 and T2 profiles, respectively. This second component (variations of the effects across the profiles from the previous time points) is designed to predict specific profile-to-profile transitions. In the second model, the associations between the demographics and the profiles were freely estimated across time points, but not allowed to vary as a function of the profiles estimated at the previous time point. In the third model, we tested the predictive similarity of these associations by constraining the effects of the demographics on profile membership to be equal across time points. The last model was a null effects model in which the effects of the demographics on profile membership were constrained to be zero.

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Table S1*Previous Person-Centered Studies on Commitment Profiles Involving More than Two Targets*

Study	Participants	Targets	Profile characteristics/names
Becker & Billings (1993)	<i>N</i> = 440	Normative to top management Organization-related internalization Organization-related identification Compliance Supervisor-related internalization Supervisor-related identification Workgroup-related internalization Workgroup-related identification	(1) Locally committed (2) Globally committed (3) Committed (4) Uncommitted
Cooper et al. (2016) Sample 1	<i>N</i> = 235	Profession Organization Supervisor Job	(1) High macro (2) Moderate macro (3) Moderate cosmopolitan
Cooper et al. (2016) Sample 2	<i>N</i> = 233	Profession Organization Supervisor Job	(1) High cosmopolitan (2) High macro (3) Moderate cosmopolitan (4) Uncommitted
Loscher et al. (2023)	<i>N</i> = 303	Organization: Military Profession: Military Organization: Civil Profession: Civil	(1) Uncommitted to either military or civil life (2) Fully committed to military (3) AC-dominant to both military and civil life (4) Fully committed to both military and civil life (5) Fully committed to civil life
Meyer et al. (2021)	<i>N</i> = 2090	Global worklife commitment Organization Supervisor Coworker Customer	(1) Globally uncommitted: workgroup oriented (2) Moderately committed: organization and citizens oriented (3) Moderately committed: organization oriented (4) Globally uncommitted: people oriented (5) Globally committed: balanced (6) Globally uncommitted: citizens oriented
Morin et al. (2011a)	<i>N</i> = 404	Organization Workgroup Supervisor Customer Job Work Career	(1) Supervisor-committed (2) Career-committed (3) Workplace-committed (4) Committed (5) Uncommitted
Swales (2004) – Sample 1	<i>N</i> = 497	Organization Supervisor Top management Workgroup	(1) Committed (2) Organizationally committed (3) Locally committed (4) Uncommitted
Swales (2004) – Sample 2	<i>N</i> = 527	Organization Supervisor Top management Workgroup	(1) Committed (2) Managerially uncommitted (3) Supervisor committed (4) Uncommitted

Note. *N*: sample size, AC: affective commitment, CC: continuance commitment; NC: normative commitment.

Table S2*Analyses of Variance Tests at Baseline Based on the Number of Missing Time Points*

Variable	F-value	p-value	Statistically significant differences
Global commitment	9.246	< .001	0 = 1 < 2
Organizational commitment	.911	.403	no statistically significant differences
Supervisor commitment	2.302	.100	no statistically significant differences
Occupational commitment	1.369	.255	no statistically significant differences
Team commitment	1.494	.225	no statistically significant differences
Family commitment	1.249	.287	no statistically significant differences
Global need satisfaction	2.823	.060	no statistically significant differences
Specific autonomy satisfaction	1.238	.290	no statistically significant differences
Specific competence satisfaction	.121	.886	no statistically significant differences
Specific relatedness satisfaction	4.125	.016	0 = 1; 0 < 2; 1 = 2
Meaningfulness	.692	.501	no statistically significant differences
Age	11.599	< .001	2 < 0 = 1
Sex	.389	.672	no statistically significant differences
Level of education	3.462	.032	0 = 1; 2 < 0; 1 = 2
Tenure	4.159	.016	0 = 1; 2 < 0; 1 = 2
Relationship status	.041	.959	no statistically significant differences
Amount of telework	1.474	.229	no statistically significant differences

Note. Numbers in the right column represent the number of missing waves (i.e., 0 = no missing waves, 1 = one missing wave, 2 = two missing waves). Main variables of interest were factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1. Demographic variables were coded as follows: age (in years, standardized), sex (0 = male, 1 = female), level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized), tenure (in years, standardized), relationship status (0 = married or in a relationship, 1 = not married or not in a relationship), amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Table S3

Goodness-of-Fit Statistics for the Estimated Preliminary Models

	χ^2	df	CFI	TLI	RMSEA (90% CI)	$\Delta\chi^2$	Δ df	Δ CFI	Δ TLI	Δ RMSEA
<i>Time-Specific Measurement Models</i>										
Commitment: Bifactor CFA (Time 1)	251.530*	109	.992	.986	.030 (.025, .035)	Na	Na	Na	Na	Na
Commitment: Bifactor CFA (Time 2)	204.064*	109	.992	.987	.029 (.023, .035)	Na	Na	Na	Na	Na
Commitment: Bifactor CFA (Time 3)	192.806*	109	.989	.981	.033 (.025, .040)	Na	Na	Na	Na	Na
Predictors (Time 1)	981.138*	103	.933	.911	.076 (.072, .081)	Na	Na	Na	Na	Na
Predictors (Time 2)	724.136*	103	.940	.920	.077 (.072, .082)	Na	Na	Na	Na	Na
Predictors (Time 3)	605.977*	103	.937	.917	.083 (.076, .089)	Na	Na	Na	Na	Na
<i>Tests of Longitudinal Measurement Invariance (Commitment)</i>										
Configural invariance	2815.552*	1431	.975	.969	.026 (.024, .027)					
Weak invariance	2890.680*	1491	.974	.970	.025 (.024, .027)	74.654	60	-.001	+.001	-.001
Strong invariance	2933.668*	1519	.974	.970	.025 (.024, .027)	37.318	28	.000	.000	.000
Strict invariance	2916.793*	1559	.975	.972	.024 (.023, .026)	48.615	40	+.001	+.002	-.001
Correlated uniqueness invariance	2995.305*	1639	.975	.973	.024 (.022, .025)	106.000*	80	.000	+.001	.000
Latent variance-covariance invariance	3068.783*	1661	.974	.973	.024 (.023, .025)	75.249*	22	-.001	.000	.000
Latent mean invariance	3140.000*	1673	.973	.972	.025 (.023, .026)	85.234*	12	-.001	-.001	+.001
<i>Tests of Longitudinal Measurement Invariance (Predictors)</i>										
Configural invariance	3210.959*	1086	.950	.942	.037 (.035, .038)					
Weak invariance	3247.444*	1134	.951	.945	.036 (.034, .037)	60.361	48	.001	.003	-.001
Strong invariance	3301.795*	1158	.950	.945	.036 (.034, .037)	49.070*	24	-.001	.000	.000
Strict invariance	3349.106*	1192	.950	.946	.035 (.034, .037)	72.236*	34	.000	.001	-.001
Latent variance-covariance invariance	3364.715*	1210	.950	.947	.035 (.034, .036)	19.442	18	.000	.001	.000
Latent mean invariance	3390.977*	1220	.949	.947	.035 (.034, .036)	25.691*	10	-.001	.000	.000

Note. * $p < .01$; Na: not applicable; CFA: Confirmatory factor analysis; ESEM: Exploratory structural equation modeling; χ^2 : Robust chi-square test of exact fit; df: Degrees of freedom; CFI: Comparative fit index; TLI: Tucker-Lewis index; RMSEA: Root mean square error of approximation; 90% CI: 90% confidence interval of the RMSEA; $\Delta\chi^2$: Robust (Satorra-Bentler) chi-square difference test (calculated from loglikelihood for greater precision); Δ : change in model fit in relation to the comparison model.

Table S4*Final Standardized Parameter Estimates from Bifactor CFA Measurement Model of Commitment (Latent Mean Invariance)*

	G-factor (λ)	Organizational (λ)	Supervisor (λ)	Occupation (λ)	Team (λ)	Family (λ)	δ
Organizational commitment							
Item 1	.714**	.588**					.143
Item 2	.663**	.533**					.275
Item 3	.699**	.621**					.125
Item 4	.697**	.634**					.112
Supervisor commitment							
Item 5	.763**		.541**				.124
Item 6	.704**		.555**				.175
Item 7	.746**		.588**				.078
Item 8	.743**		.575**				.106
Work commitment							
Item 9	.800**			.463**			.127
Item 10	.651**			.407**			.197
Item 11	.770**			.547**			.098
Item 12	.790**			.520**			.115
Team commitment							
Item 13	.761**				.547**		.146
Item 14	.715**				.543**		.409
Item 15	.758**				.589**		.106
Item 16	.749**				.572**		.106
Family commitment							
Item 17						.937**	.122
Item 18						.910**	.193
Item 19						.960**	.078
Item 20						.946**	.112
ω	.983	.896	.914	.875	.869	.965	

Note. ** $p < .01$; CFA: confirmatory factor analysis; G-factor: global levels of commitment; λ : Factor loading; δ : Item uniqueness; ω : model-based omega composite reliability based on McDonald (1970).

Table S5*Final Standardized Parameter Estimates from the Predictor Measurement Model of Commitment (Latent Mean Invariance)*

	G-factor (λ)	Autonomy satisfaction (λ)	Competence satisfaction (λ)	Relatedness satisfaction (λ)	Meaningfulness (λ)	δ
Autonomy satisfaction						
Item 1	.740**	.447**				.252
Item 2	.724**	.526**				.199
Item 3	.785**	.455**				.176
Item 4	.784**	.465**				.169
Competence satisfaction						
Item 5	.802**		.419**			.181
Item 6	.805**		.419**			.176
Item 7	.754**		.533**			.147
Item 8	.748**		.467**			.223
Relatedness satisfaction						
Item 9	.737**			.380**		.313
Item 10	.645**			.573**		.256
Item 11	.487**			.731**		.229
Item 12	.574**			.681**		.206
Meaningfulness						
Item 13					.898**	.194
Item 14					.925**	.144
Item 15					.890**	.208
Item 16					.867**	.249
Item 17					.942**	.113
ω	.955	.818	.823	.848	.957	

Note. ** $p < .01$; G-factor: global levels of need satisfaction at work; λ : Factor loading; δ : Item uniqueness; ω : model-based omega composite reliability based on McDonald (1970).

Table S6
Correlations among the Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. COM: Global (T1)	—																	
2. COM: Organization (T1)	0	—																
3. COM: Supervisor (T1)	0	0	—															
4. COM: Occupation (T1)	0	0	0	—														
5. COM: Team (T1)	0	0	0	0	—													
6. COM: Family (T1)	.335**	.108**	.067*	.180**	.200**	—												
7. COM: Global (T2)	.889**	.089**	.134**	.118**	.105**	.351**	—											
8. COM: Organization (T2)	.148**	.434**	-.122**	-.112**	-.160**	.030	0	—										
9. COM: Supervisor (T2)	.119**	-.105**	.612**	-.244**	-.112**	-.072**	0	0	—									
10. COM: Occupation (T2)	.094**	-.103**	-.248**	.398**	-.193**	.000	0	0	0	—								
11. COM: Team (T2)	.114**	-.211**	-.103**	-.161**	.513**	.054*	0	0	0	0	—							
12. COM: Family (T2)	.288**	.043	.017	.150**	.201**	.809**						—						
13. COM: Global (T3)	.852**	.097**	.138**	.120**	.127**	.351**	.328**	.094**	-.009	.167**	.216**	.420**	—					
14. COM: Organization (T3)	.168**	.429**	-.068**	-.110**	-.190**	.166**	.877**	.155**	.117**	.146**	.188**	-.069**	0	—				
15. COM: Supervisor (T3)	.108**	-.115**	.561**	-.249**	-.107**	-.037	.183**	.441**	-.086**	-.166**	-.176**	-.191**	0	0	—			
16. COM: Occupation (T3)	.126**	-.129**	-.237**	.418**	-.144**	.121**	.119**	-.126**	.618**	-.304**	-.155**	-.059*	0	0	0	—		
17. COM: Team (T3)	.136**	-.181**	-.110**	-.197**	.600**	.126**	.175**	-.100**	-.308**	.430**	-.164**	.023	0	0	0	0	—	
18. COM: Family (T3)	.293**	.054*	.014	.106**	.158**	.839**	.158**	-.185**	-.152**	-.227**	.618**	.865**	.357**	.152**	-.029	.127**	.161**	—

Note. * $p < .05$, ** $p < .01$; T: time. Main variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1. Demographic variables were coded as follows: age (in years, standardized), sex (0 = male, 1 = female), level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized), job tenure (in years, standardized), relationship status (0 = married or in a relationship, 1 = not married or not in a relationship), amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Table S6 (continued 1)
Correlations among the Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
19. Need Satisfaction: Global (T1)	.535**	.018	.028	.221**	.135**	.305**	.483**	.038	-.010	.114**	.096**	.275**	.466**
20. Need Satisfaction: Autonomy (T1)	.239**	.015	.071**	.129**	-.121**	.041	.238**	.058*	.069**	.065*	-.097**	.022	.223**
21. Need Satisfaction: Competence (T1)	.022	.062*	-.106**	.190**	-.062*	.137**	.005	-.008	-.110**	.149**	-.070**	.100**	.004
22. Need Satisfaction: Relatedness (T1)	.346**	-.101**	.031	-.092**	.371**	.101**	.309**	-.056*	.007	-.077**	.285**	.117**	.324**
23. Need Satisfaction: Global (T2)	.517**	-.025	.020	.192**	.080**	.284**	.586**	.044	-.012	.210**	.179**	.309**	.537**
24. Need Satisfaction: Autonomy (T2)	.246**	.017	.058*	.120**	-.123**	.054*	.277**	.067*	.054*	.113**	-.115**	.035	.253**
25. Need Satisfaction: Competence (T2)	.003	.030	-.113**	.134**	-.039	.103**	.036	.027	-.107**	.247**	-.048	.148**	.025
26. Need Satisfaction: Relatedness (T2)	.301**	-.119**	.018	-.092**	.309**	.088**	.351**	-.080**	.031	-.085**	.381**	.123**	.340**
27. Need Satisfaction: Global (T3)	.533**	-.024	.002	.218**	.106**	.293**	.544**	.026	-.003	.163**	.126**	.283**	.584**
28. Need Satisfaction: Autonomy (T3)	.236**	.018	.045	.169**	-.130**	.073**	.234**	.064*	.060*	.050	-.143**	.020	.253**
29. Need Satisfaction: Competence (T3)	.031	.030	-.107**	.160**	-.042	.125**	.037	.013	-.121**	.228**	-.056*	.142**	.042
30. Need Satisfaction: Relatedness (T3)	.319**	-.103**	.043	-.105**	.325**	.099**	.323**	-.086**	.039	-.095**	.337**	.124**	.353**
31. Meaningfulness (T1)	.546**	.018	-.025	.277**	.055*	.226**	.502**	.039	-.050	.199**	.013	.193**	.481**
32. Meaningfulness (T2)	.502**	.008	-.071**	.218**	.034	.188**	.562**	.077**	-.043	.259**	.060*	.212**	.520**
33. Meaningfulness (T3)	.537**	.011	-.052*	.227**	.046	.221**	.550**	.062*	-.050	.207**	.037	.196**	.565**
34. Age	.112**	.067*	-.036	.091**	-.023	.100**	.104**	.084**	-.058*	.097**	-.025	.102**	.090**
35. Sex	-.004	-.098**	.023	.093**	.005	.115**	.024	-.076**	.011	.060*	-.010	.092**	.023
36. Level of education	.046	.140**	-.036	-.060*	-.010	.013	.033	.079**	-.027	-.004	-.046	-.019	.006
37. Job tenure	.055*	.043	-.090**	.097**	.015	.106**	.054*	.056*	-.110**	.072**	.015	.099**	.047
38. Relationship status	-.063*	-.013	.006	.008	-.081**	-.207**	-.061*	.036	.028	.014	-.077**	-.199**	-.096**
39. Amount of telework	.050	.156**	.023	-.093**	-.003	.063*	.047	.146**	.045	-.052*	-.059*	.056*	.047

Note. * $p < .05$, ** $p < .01$; T: time. Main variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1. Demographic variables were coded as follows: age (in years, standardized), sex (0 = male, 1 = female), level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized), job tenure (in years, standardized), relationship status (0 = married or in a relationship, 1 = not married or not in a relationship), amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Table S6 (continued 2)
Correlations among the Study Variables

	14	15	16	17	18	19	20	21	22	23	24	25	26
19. Need Satisfaction: Global (T1)	.042	-.019	.133**	.105**	.266**	—							
20. Need Satisfaction: Autonomy (T1)	.082**	.059*	.076**	-.097**	.023	0	—						
21. Need Satisfaction: Competence (T1)	.030	-.109**	.187**	-.059*	.125**	0	0	—					
22. Need Satisfaction: Relatedness (T1)	-.053*	.016	-.079**	.303**	.098**	0	0	0	—				
23. Need Satisfaction: Global (T2)	.029	-.040	.162**	.128**	.269**	.761**	.220**	.158**	.115**	—			
24. Need Satisfaction: Autonomy (T2)	.079**	.015	.138**	-.119**	.020	.224**	.716**	-.304**	-.013	0	—		
25. Need Satisfaction: Competence (T2)	-.019	-.133**	.152**	-.064*	.132**	.131**	-.332**	.715**	-.160**	0	0	—	
26. Need Satisfaction: Relatedness (T2)	-.057*	.033	-.066*	.332**	.100**	.092**	.022	-.205**	.813**	0	0	0	—
27. Need Satisfaction: Global (T3)	.043	-.008	.241**	.167**	.303**	.743**	.227**	.180**	.116**	.778**	.250**	.161**	.132**
28. Need Satisfaction: Autonomy (T3)	.103**	.080**	.141**	-.126**	.032	.210**	.765**	-.314**	-.049	.245**	.757**	-.370**	-.021
29. Need Satisfaction: Competence (T3)	-.020	-.112**	.196**	-.068**	.147**	.163**	-.332**	.825**	-.179**	.192**	-.370**	.916**	-.216**
30. Need Satisfaction: Relatedness (T3)	-.044	.032	-.075**	.366**	.126**	.088**	.009	-.204**	.858**	.117**	-.006	-.183**	.844**
31. Meaningfulness (T1)	.068**	-.069**	.200**	.046	.186**	.504**	.353**	.153**	.356**	.495**	.294**	.128**	.265**
32. Meaningfulness (T2)	.068**	-.101**	.227**	.052*	.182**	.405**	.268**	.075**	.360**	.493**	.352**	.163**	.373**
33. Meaningfulness (T3)	.087**	-.034	.276**	.082**	.218**	.439**	.334**	.119**	.362**	.510**	.304**	.127**	.336**
34. Age	.088**	-.101**	.080**	-.039	.097**	.150**	.001	.128**	-.024	.145**	.013	.120**	-.032
35. Sex	-.048	-.010	.102**	-.005	.090**	.048	.006	-.023	.024	.031	.012	-.013	.030
36. Level of education	.097**	-.013	.016	-.025	.009	.014	.071**	.007	-.089**	-.001	.097**	-.038	-.078**
37. Job tenure	.050	-.119**	.075**	.006	.093**	.112**	.033	.125**	.064*	.102**	.035	.117**	.062*
38. Relationship status	.025	.015	-.012	-.092**	-.215**	-.049	-.040	.027	-.054*	-.059*	-.033	.005	-.050
39. Amount of telework	.121**	.034	-.073**	-.033	.056*	.026	.106**	-.053*	-.130**	-.009	.080**	-.086**	-.108**

Note. * $p < .05$, ** $p < .01$; T: time. Main variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1. Demographic variables were coded as follows: age (in years, standardized), sex (0 = male, 1 = female), level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized), job tenure (in years, standardized), relationship status (0 = married or in a relationship, 1 = not married or not in a relationship), amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Table S6 (continued 3)
Correlations among the Study Variables

	27	28	29	30	31	32	33	34	35	36	37	38
27. Need Satisfaction: Global (T3)	—											
28. Need Satisfaction: Autonomy (T3)	0	—										
29. Need Satisfaction: Competence (T3)	0	0	—									
30. Need Satisfaction: Relatedness (T3)	0	0	0	—								
31. Meaningfulness (T1)	.513**	.337**	.165**	.326**	—							
32. Meaningfulness (T2)	.460**	.284**	.107**	.373**	.822**	—						
33. Meaningfulness (T3)	.554**	.384**	.165**	.376**	.853**	.865**	—					
34. Age	.134**	.019	.134**	-.047	.109**	.088**	.078**	—				
35. Sex	.048	.014	-.020	.031	.035	.053*	.050	-.093**	—			
36. Level of education	.014	.084**	-.023	-.082**	.067*	.057*	.051	-.030	-.034	—		
37. Job tenure	.106**	.023	.127**	.049	.162**	.158**	.134**	.392**	-.041	-.055*	—	
38. Relationship status	-.072**	-.044	.009	-.049	-.022	-.037	-.039	.020	.125**	.006	-.036	—
39. Amount of telework	.012	.092**	-.078**	-.106**	-.035	-.056*	-.034	-.047	.025	.280**	-.057*	-.072**

Note. * $p < .05$, ** $p < .01$; T: time. Main variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1. Demographic variables were coded as follows: age (in years, standardized), sex (0 = male, 1 = female), level of education (1 = non-university, 2 = bachelor's, 3 = university certificate, 4 = master's, 5 = doctorate or other doctoral, standardized), job tenure (in years, standardized), relationship status (0 = married or in a relationship, 1 = not married or not in a relationship), amount of telework (1 = less than one day, 2 = one day, 3 = two days, 4 = three days, 5 = four days, 6 = five days, 7 = more than five days, standardized).

Table S7

Exact Within-Profile Means, Variances and 95% Confidence Intervals [95% CI] from the Six-Profile Solution

	Profile 1 T1-T3 Mean	Profile 2 T1-T3 Mean	Profile 3 T1-T3 Mean	Profile 4 T1-T3 Mean	Profile 5 T1-T3 Mean	Profile 6 T1-T2 Mean	Profile 6 T3 Mean
Global commitment	-.637 [-.653, -.621]	-.647 [-.778, -.516]	.231 [.159, .302]	.121 [.024, .218]	.431 [.417, .445]	1.580 [1.571, 1.590]	1.358 [1.308, 1.408]
Organizational commitment	-.014 [-.033, .005]	-.196 [-.288, -.105]	.054 [.020, .089]	.017 [-.063, .097]	.229 [.210, .249]	.550 [.540, .559]	.303 [.266, .340]
Supervisor commitment	.284 [.263, .305]	-.144 [-.230, -.058]	.046 [.006, .086]	-.120 [-.207, -.033]	.360 [.336, .385]	.490 [.478, .502]	.310 [.285, .335]
Occupational commitment	-.460 [-.489, -.430]	-.063 [-.140, .015]	-.011 [-.040, .018]	.225 [.147, .303]	-.210 [-.231, -.189]	-.009 [-.020, .002]	-.007 [-.020, .006]
Team commitment	-.267 [-.290, -.244]	-.184 [-.270, -.098]	.052 [.012, .092]	.170 [.080, .260]	-.046 [-.061, -.031]	.151 [.140, .162]	.101 [.091, .112]
Family commitment	-.677 [-.841, -.513]	-.820 [-.948, -.693]	.026 [-.054, .106]	.776 [.773, .778]	.304 [.187, .420]	.791 [.789, .792]	.656 [.629, .683]
	T1 Variance	T1 Variance	T1 Variance	T1 Variance	T1 Variance	T1 Variance	T1 Variance
Global commitment	.008 [.005, .010]	.917 [.807, 1.027]	.414 [.359, .469]	.754 [.622, .887]	.003 [.002, .005]	.001 [.001, .002]	
Organizational commitment	.010 [.003, .017]	1.072 [.896, 1.248]	.211 [.173, .248]	1.149 [.983, 1.314]	.010 [.007, .013]	.002 [.001, .003]	
Supervisor commitment	.014 [.008, .020]	.936 [.785, 1.087]	.266 [.228, .304]	1.093 [.941, 1.245]	.015 [.010, .020]	.003 [.002, .005]	
Occupational commitment	.034 [.025, .044]	.999 [.815, 1.182]	.121 [.070, .171]	.903 [.714, 1.092]	.008 [.004, .012]	.003 [.002, .003]	
Team commitment	.018 [.012, .024]	1.072 [.862, 1.282]	.140 [.086, .193]	1.085 [.845, 1.325]	.005 [.003, .008]	.002 [.001, .004]	
Family commitment	.707 [.570, .844]	1.237 [1.026, 1.449]	.357 [.302, .413]	.001 [.000, .001]	.327 [.205, .449]	.000 [.000, .000]	
	T2 Variance	T2 Variance	T2 Variance	T2 Variance	T2 Variance	T2 Variance	T2 Variance
Global commitment	.008 [.005, .010]	.917 [.807, 1.027]	.414 [.359, .469]	.754 [.622, .887]	.003 [.002, .005]	.001 [.001, .002]	
Organizational commitment	.010 [.003, .017]	1.072 [.896, 1.248]	.211 [.173, .248]	1.149 [.983, 1.314]	.010 [.007, .013]	.002 [.001, .003]	
Supervisor commitment	.014 [.008, .020]	.936 [.785, 1.087]	.266 [.228, .304]	1.093 [.941, 1.245]	.015 [.010, .020]	.003 [.002, .005]	
Occupational commitment	.034 [.025, .044]	.999 [.815, 1.182]	.121 [.070, .171]	.903 [.714, 1.092]	.008 [.004, .012]	.003 [.002, .003]	
Team commitment	.018 [.012, .024]	1.072 [.862, 1.282]	.140 [.086, .193]	1.085 [.845, 1.325]	.005 [.003, .008]	.002 [.001, .004]	
Family commitment	.707 [.570, .844]	1.237 [1.026, 1.449]	.357 [.302, .413]	.001 [.000, .001]	.327 [.205, .449]	.000 [.000, .000]	
	T3 Variance	T3 Variance	T3 Variance	T3 Variance	T3 Variance	T3 Variance	T3 Variance
Global commitment	.008 [.005, .010]	.917 [.807, 1.027]	.307 [.255, .359]	.868 [.687, 1.049]	.008 [.005, .010]		.040 [.032, .049]
Organizational commitment	.010 [.003, .017]	1.072 [.896, 1.248]	.176 [.126, .225]	.733 [.567, .899]	.017 [.008, .026]		.022 [.014, .031]
Supervisor commitment	.014 [.008, .020]	.936 [.785, 1.087]	.203 [.166, .240]	1.152 [.888, 1.415]	.032 [.018, .046]		.010 [.007, .013]
Occupational commitment	.034 [.025, .044]	.999 [.815, 1.182]	.129 [.098, .160]	.928 [.706, 1.151]	.015 [.011, .019]		.002 [.002, .003]
Team commitment	.018 [.012, .024]	1.072 [.862, 1.282]	.182 [.143, .222]	1.177 [.862, 1.493]	.005 [.002, .007]		.002 [.000, .004]
Family commitment	.707 [.570, .844]	1.237 [1.026, 1.449]	.312 [.262, .362]	.001 [.001, .001]	.256 [.164, .348]		.011 [.007, .015]

Note. Factors were estimated from factor scores with a mean of 0 and a standard deviation of 1; T: time; Profile 1: Globally uncommitted to work and family, with a supervisor orientation; Profile 2: Globally uncommitted to work and family with a balanced configuration; Profile 3: Average commitment to work and family with a balanced configuration; Profile 4: Average commitment to work with an occupational orientation and a high commitment to the family; Profile 5: Moderately committed to work and the family, with an institutional orientation; Profile 6: Highly committed to work and to the family with a workplace orientation.

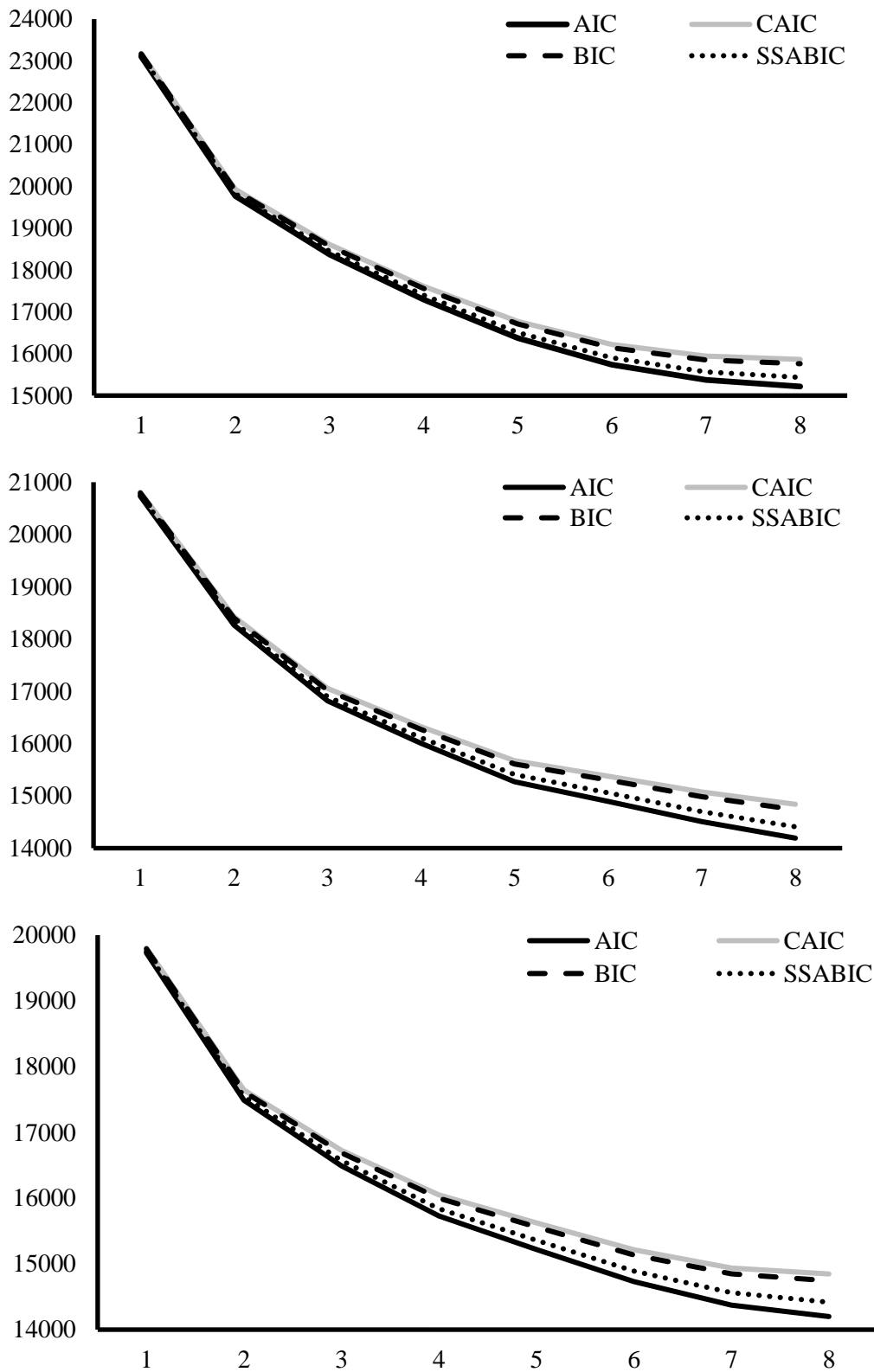
Table S8*Raw Descriptive Statistics of the Measures Used in the Present Study*

Variable	Range	Mean	SD
Global commitment to work (Time 1)	1-5	3.58	0.80
Organizational commitment (Time 1)	1-5	3.44	0.99
Supervisor commitment (Time 1)	1-5	3.34	1.05
Occupational commitment (Time 1)	1-5	3.81	0.88
Work team commitment (Time 1)	1-5	3.72	0.96
Family commitment (Time 1)	1-5	4.32	0.86
Global commitment to work (Time 2)	1-5	3.52	0.86
Organizational commitment (Time 2)	1-5	3.47	0.98
Supervisor commitment (Time 2)	1-5	3.31	1.08
Occupational commitment (Time 2)	1-5	3.70	0.94
Work team commitment (Time 2)	1-5	3.61	1.00
Family commitment (Time 2)	1-5	4.32	0.87
Global commitment to work (Time 3)	1-5	3.39	0.84
Organizational commitment (Time 3)	1-5	3.35	0.96
Supervisor commitment (Time 3)	1-5	3.11	1.04
Occupational commitment (Time 3)	1-5	3.58	0.94
Work team commitment (Time 3)	1-5	3.50	0.99
Family commitment (Time 3)	1-5	4.31	0.85
Global need satisfaction (Time 1)	1-7	5.41	1.11
Autonomy satisfaction (Time 1)	1-7	5.37	1.31
Competence satisfaction (Time 1)	1-7	5.70	1.17
Relatedness satisfaction (Time 1)	1-7	5.14	1.37
Meaningfulness (Time 1)	1-7	5.03	1.54
Global need satisfaction (Time 2)	1-7	5.33	1.09
Autonomy satisfaction (Time 2)	1-7	5.34	1.28
Competence satisfaction (Time 2)	1-7	5.63	1.15
Relatedness satisfaction (Time 2)	1-7	5.03	1.37
Meaningfulness (Time 2)	1-7	5.00	1.58
Global need satisfaction (Time 3)	1-7	5.28	1.12
Autonomy satisfaction (Time 3)	1-7	5.33	1.30
Competence satisfaction (Time 3)	1-7	5.59	1.20
Relatedness satisfaction (Time 3)	1-7	4.93	1.40
Meaningfulness (Time 3)	1-7	4.87	1.58

Note. Readers should note that the raw scores presented in this table do not match the scores used in our analyses given that we have relied on factor scores estimated in standardized units from bifactor measurement models. Thus, the means and variance of the scores used in the study are respectively 0 and 1.

Figure S1

Elbow Plots of the Information Criteria for Time 1 (Top), Time 2 (Middle) and Time 3 (Bottom) Latent Profile Analyses



Note. AIC: Akaike Information Criterion; BIC: Bayesian Information Criterion; CAIC: Consistent AIC; SSABIC: Sample-Size-Adjusted BIC.