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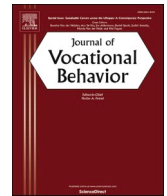
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Employees' affective commitment to multiple work-related targets: A longitudinal person-centered investigation

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ABSTRACT

This study uses a person-centered approach to investigate the structure, stability, antecedents, and outcomes of employees' affective commitment to multiple work-related targets. Following [Perreira et al.'s \(2018\)](#) hierarchical representation of commitment, profiles of affective commitment were estimated by considering both global levels of commitment to the work life and specific levels of commitment to organization, supervisor, coworkers, occupation, work, and career. To this end, a sample of 468 individuals working in firefighting stations located in France was surveyed twice over a four-month period. Our results revealed six commitment profiles: (1) *Globally Moderately Committed with a Hierarchical-Organizational Orientation*, (2) *Globally Weakly Committed with a Balanced Orientation*, (3) *Globally Strongly Committed with an Occupational Orientation*, (4) *Globally Moderately Committed with a Hierarchical-Supervisor Orientation*, (5) *Globally Strongly Committed with a Career Orientation*, and (6) *Globally Strongly Committed with a Social Orientation*. Over time, these profiles displayed a high level of within-sample and within-person stability. Global levels of authentic leadership were related to a higher likelihood of membership into profiles displaying higher global levels of commitment (especially those with a social or occupational orientation) than into the other profiles. Levels of perceived health, work efficiency, improvement-oriented behaviors, and job satisfaction also differed across profiles, with some of the worst outcomes found in the *Globally Moderately Committed with a Hierarchical-Organizational Orientation* profile.

1. Introduction

Defined as a “force that binds an individual to a course of action of relevance to one or more targets” ([Meyer & Herscovitch, 2001](#), p. 299), workplace commitment can be anchored in different mindsets (affective, normative, and continuance; e.g., [Meyer et al., 1993](#)). Of those mindsets, affective commitment (i.e., depicting an emotional attachment to the target of the commitment) is the most widely investigated, the one with the most widespread benefits for employees and their organizations ([Kabins et al., 2016](#); [Lee et al., 2000](#); [Meyer et al., 2002](#); [Xu et al., 2023](#)), and is thus the focus of the present investigation. Although extensive research has focused on

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employees' affective commitment to their organization (e.g., Meyer et al., 2002; Xu et al., 2023) and occupation (e.g., Lee et al., 2000; Spurk et al., 2019), limited research has considered how commitments to different targets (i.e., organization, occupation, supervisors, coworkers, work, and career) combine among distinct profiles of employees (e.g., Becker, 2016; Meyer & Morin, 2016; Morin et al., 2011). Indeed, in combination, these commitments come to form unique systems of interrelated variables, where commitment to any target is likely to impact the implications of the other commitments (e.g., Klein et al., 2022; Meyer & Morin, 2016). For instance, a strong affective commitment to coworkers may act as a critical social tie helping to retain employees with a low level of commitment to other targets, while being a secondary bond for employees who are globally committed to most of their work life. Likewise, a high affective commitment to coworkers can have distinct implications when combined with a weak versus strong commitment to the supervisor, suggesting an opposition between coworkers and hierarchy in the former profile but a strong bond to the work unit in the latter profile.

Although many studies have sought to identify how multiple commitments combine among distinct profiles of employees (e.g., Kabins et al., 2016; Meyer & Morin, 2016), few studies have jointly considered more than two work-related targets of commitment (Becker & Billings, 1993; Cooper et al., 2016; Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Swailes, 2004; Tóth-Király et al., 2023). Among those, only four (Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Tóth-Király et al., 2023) have jointly considered employees' global levels of commitment to their work life (i.e., their global levels of affective commitment across all work-related targets; Perreira et al., 2018), and only one has done so longitudinally (Tóth-Király et al., 2023). We come back to the importance of considering this global level of commitment in the subsequent section.

We expand upon this previous research by longitudinally investigating profiles of affective commitment to the organization, occupation, supervisor, workgroup, work, and career, while also considering employees' global affective commitment to their work life. The only previous longitudinal study of multi-target commitment profiles (Tóth-Király et al., 2023) relied on data collected during the COVID-19 pandemic. This pandemic represented a crisis, involved a complete restructuring of the way work was conducted in most workplaces, modified the way employees interacted with one another and their supervisors (remotely vs in person), and transformed our representations of organizations (no longer a "place" where one goes to work but a more abstract entity) (Elbaz et al., 2023; Kim & Ugwuanyi, 2024; Zabel et al., 2024). Crises tend to make working conditions more difficult (e.g., staff shortages, increased workload), interfere with positive social interactions, and require different managerial practices than more normative situations (e.g., Gagné et al., 2020; Kahn et al., 2013; Yukl, 2002). Those transformations are likely to modify how employees commit to a variety of work-related targets including their organization, workgroup, supervisors, and even potentially career and occupation (Markovits et al., 2014; Meyer et al., 2018). These observations all highlight the critical importance of verifying whether and how these previous results would generalize to post-pandemic workplaces.

Tóth-Király et al. (2023) also incorporated a non-work-related target in their profile definition process (i.e., commitment to the family), making it hard to assess the unique role played by work-related commitments. More specifically, as the indicators used to define the profiles do not only represent work-related commitments, the nature of the profiles may be influenced by this non-work-related target of commitment, thereby interfering with our ability to understand the unique role played by work-related commitments. Furthermore, the bulk of previous person-centered research has relied on limited theoretical guidance related to the expected nature of multi-target commitment profiles. To address this limitation, we rely on commitment theory and research to propose a series of theory-driven scenarios likely to help guide future research on multi-target commitment profiles, paralleling those proposed by Meyer and Morin (2016) to guide person-centered research on mindsets of organizational commitment. The current study is thus the first to rely on a fully theory-driven approach to identify employees' multi-target commitment profiles.

At a time when many organizations are rethinking how to preserve and enhance employees' health, involvement, and performance, our study is likely to yield important insights for the development of interventions focused on workplace affective commitment. Person-centered results also have the key advantage of being naturally aligned with practitioners' tendency to think about employees as members of different categories (person-centered) rather than in terms of complex variable associations (variable-centered; Morin et al., 2011; Morin et al., 2018). Furthermore, adopting a longitudinal perspective allows assessing the extent to which the identified profiles replicate over time (within-sample similarity; Morin et al., 2016a) as well as the stability of employees' profile membership over time (within-person stability; Kam et al., 2016). Evidence of within-sample and within-person stability are key requirements for the development of person-centered interventions, given that rigid or ephemeral profiles are unlikely to be truly helpful from an intervention perspective (Huyghebaert-Zouaghi et al., 2022; Sandrin et al., 2020).

Lastly, we seek to document the construct validity of the identified profiles by examining their associations with a theoretically relevant predictor (i.e., authentic leadership) that had yet to be formally investigated as an antecedent of multi-target commitment profiles, as well as with a variety of outcomes known to be associated with commitment (i.e., perceived health, work efficiency, improvement-oriented behaviors, and job satisfaction). From a practical perspective, the ability to document the outcome implications of various commitment profiles will help select which profiles should be targeted for intervention, while knowledge of their predictors can help select intervention strategies that support the emergence of more desirable profiles.

1.1. The positive manifold of employees' affective commitment to multiple targets

In their classical meta-analysis, Cooper-Hakim and Viswesvaran (2005) were the first to identify a *positive manifold* (a pattern of positive correlations of various magnitude) underlying employees' affective commitment directed at a variety of targets. They noted that this *positive manifold* was consistent with the presence of "a common underlying psychological construct of work commitment" (p. 251), leading them to recommend accounting for this global factor to achieve a more accurate picture of the unique predictive role of each specific target of commitment. Morin et al. (2011) sought to implement this suggestion by statistically controlling for employees'

global levels of affective commitment to seven targets to achieve a clearer view of the specific role played by each distinct target in defining employees' profiles of commitment.

Morin and Marsh (2015) proposed a more extensive statistical rationale positioning the importance of accounting for the variance explained by global constructs when seeking to identify profiles from indicators sharing a similar *positive manifold*. They demonstrated that failure to control for these global constructs resulted in the erroneous identification of profiles dominated by *level* differences (i.e., quantitative differences, or profiles characterized by high, moderate, or low levels across all indicators), which argues against the value of a person-centered representation, thereby hiding meaningful shape differences across profiles (i.e., qualitative differences, or profiles presenting their own unique configuration). However, Morin et al. (2016a), Morin et al. (2017) later realized that the factor mixture approach proposed by Morin et al. (2011) and Morin and Marsh (2015) was flawed in assuming that all profiles displayed the same level on the global indicator. This led then to propose, and demonstrate the utility of, relying on a bifactor operationalization of profile indicators prior to the latent profile analyses to obtain non-redundant indicators of the global and specific constructs.

When applied to commitment, a bifactor operationalization entails allowing all commitment items to simultaneously define a global factor underpinning responses to all items (i.e., capturing employees' commitment to all aspects of their work life), as well as one of various specific factors representing the variance uniquely associated with each target of commitment beyond the global factor (e.g., Morin et al., 2016a, 2017). These specific factors provide a direct and non-redundant estimate of affective commitment uniquely directed at each target beyond employees' global levels of commitment, indicating the extent to which these specific commitments deviate from their global commitment (e.g., Morin et al., 2016a, 2017). Perreira et al.'s (2018) theoretical hierarchical representation of affective commitment relied on a bifactor operationalization to separately identify employees' global levels of commitment to their overarching work life (defined by the combination of all work-related targets, and thus directly capturing the extent to which they are committed to all aspects of their work life), and the unique strength of their commitment to each specific target expressed in terms of deviation from this global level. Perreira et al. (2018) documented the superiority of this representation of employees' responses to the Workplace Affective Commitment Multidimensional Questionnaire, which is the instrument used in that study to assess commitment.

1.2. A person-centered perspective on workplace affective commitment

Recent theoretical developments (Klein et al., 2022; Meyer et al., 2021; Meyer & Morin, 2016) have highlighted the importance of considering quantitatively and qualitatively distinct configurations of workplace affective commitment endorsed by different profiles of employees. This person-centered perspective (Morin et al., 2018) argues that the complete role of employees' workplace affective commitment is unlikely to be adequately captured by the isolated consideration of the different targets underpinning this commitment (Klein et al., 2022; Meyer & Morin, 2016). Indeed, although some of these commitments may be congruent with one another and play mutually reinforcing roles for employees, they can also be incongruent with one another, and even be in conflict, thus potentially resulting in a variety of undesirable outcomes (e.g., Meyer et al., 2021).

Unfortunately, few studies have sought to grasp the complex nature of the multi-target affective commitment systems experienced by distinct profiles of employees by considering more than a pair of commitment targets (Becker & Billings, 1993; Cooper et al., 2016; Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Swailes, 2004; Tóth-Király et al., 2023). The earliest of these studies was conducted by Becker and Billings (1993), who identified four profiles of employees who were (a) committed to all targets, (b) globally committed (to the top management and organization), (c) locally committed (to their supervisor and coworkers), or (d) uncommitted to all targets. Swailes (2004) later replicated these results in a sample of public accountants but uncovered two additional profiles in a second sample of management accountants (committed only to the coworkers and only to the supervisor). More recently, Cooper et al. (2016) considered affective commitment to a slightly different set of targets, encompassing the organization, occupation, supervisor, and tasks. However, the three profiles identified in a first sample of permanent university employees displayed a similar configuration (commitment to organization and supervisor was lower than commitment to the occupation and tasks, and commitment to the supervisor was lower than commitment to the organization), showing only *level* differences (higher, moderate, and lower levels across all targets). These three profiles were replicated in a second sample of fixed-term university employees, where they also identified a slightly different profile even more strongly dominated by commitment to the occupation and tasks. Cooper et al.'s (2016) results are important as they highlight the limitation of estimating latent profiles while ignoring the *positive manifold* (Cooper-Hakim & Viswesvaran, 2005) underlying employees' affective commitment to multiple targets, theoretically conceptualized as reflecting their global levels of commitment to their work life (Perreira et al., 2018).

The first study to account for this *positive manifold* was done by Morin et al. (2011), who identified profiles of affective commitment directed at seven targets (organization, supervisor, coworkers, occupation, career, work, and customers). The factor mixture approach used by these authors allowed them to identify two profiles differing mainly in level (committed and uncommitted across all targets) and three profiles presenting qualitative differences (supervisor-committed, career-committed, and workplace-committed). In the first application of the improved bifactor strategy theoretical advocated by Perreira et al. (2018) and statistically advocated by Morin et al. (2016a, 2017), Meyer et al. (2021) identified six profiles of commitment to the organization, supervisor, coworkers, and citizens among employees from a police organization. They identified three globally uncommitted profiles (very low levels of global commitment to the work life), one of which was dominated by moderately high levels of specific commitment to the supervisor and coworkers (*Globally Uncommitted: Workgroup Oriented*), one of which was dominated by moderately high levels of specific commitment to the workgroup, supervisors, and citizens (*Globally Uncommitted: People Oriented*), and one dominated by moderately high levels of specific commitment to the citizens (*Globally Uncommitted: Citizens Oriented*). They also identified two moderately committed profiles (average levels of global commitment to work life), one dominated by moderately high levels of specific commitment to the organization and citizens (*Moderately Committed: Organization and Citizens Oriented*) and one dominated by moderately high levels of

specific commitment to the organization (*Moderately Committed: Organization Oriented*). Their last profile displayed a high global commitment to the work life that was balanced across targets (*Globally Committed: Balanced*).

Houle, Shafei, et al. (2024) sought to replicate this study among a sample of newly hired employees while examining eight targets of affective commitment (i.e., organization, supervisor, coworkers, career planning, career advancement, customers, profession, and tasks). They considered all targets initially proposed by Morin et al. (2011) but expanded upon these earlier results by considering two facets of career commitment (progression and planning) and two components of occupational commitment (profession and tasks). Their results revealed five profiles, three of which shared similarities with profiles previously identified by Meyer et al. (2021), which they labelled as: (1) Globally uncommitted to the work life with a career planning and customer orientation; (2) Globally uncommitted to the work life with a professional orientation; and (3) Globally committed to the work life with a social orientation. Their remaining profiles shared similarities with the career-oriented profile identified by Morin et al. (2011): (4) Globally committed to the work life with a professional career orientation; and (5) Globally committed to the work life with an upward drive.

Tóth-Király et al. (2023) provided the sole longitudinal investigation of multi-target commitment profiles to date, investigating a diversified sample of employees surveyed three times (with monthly intervals) during the COVID-19 pandemic while considering their affective commitment to four work-related targets (i.e., organization, supervisor, occupation, and workgroup) and one non-work-related target (i.e., family). Their results supported the replicability and longitudinal stability of six commitment profiles, many of which shared similarities with the profiles identified in previous research: (1) Globally uncommitted to work and family, with a supervisor orientation; (2) Globally uncommitted to work and family with a balanced configuration; (3) Average commitment to work and family with a balanced configuration; (4) Average commitment to work with an occupational orientation and a high commitment to the family; (5) Moderately committed to work and the family, with an institutional orientation; and (6) Highly committed to work and family with a workplace orientation. Despite their interest, these results are, however, hard to compare with those identified in previous research for at least three reasons: (1) their incorporation of a non-work-related target which was found to drive the definition of all profiles; (2) their focus on the unique COVID-19 pandemic context; and (3) their reliance on measures of commitment without explicit mindsets (Klein et al., 2014) and using the same four items for all targets, rather than on measures validated to be consistent with the hierarchical model of commitment (Perreira et al., 2018). Importantly, that study also relied on very short time intervals (i.e., one month) over which commitment is unlikely to change under normative circumstances (this interval was selected as appropriate to the COVID-19 crisis context). As longitudinal results are intimately connected to a specific timeframe (Cole & Maxwell, 2003), it is important to confirm the nature and stability of commitment profiles over longer time intervals.

In the present study, we address these limitations and expand upon this previous study by considering measures of affective commitment directed at the six targets most commonly considered in previous research and highly relevant to the sample of fire-fighting employees considered in this study (i.e., organization, supervisor, coworkers, occupation, work, and career). We provide a more extensive consideration of the unique context created by this sample at the end of the introduction. We also assess the stability of commitment profiles over a period of fourth months (i.e., encompassing the length of the three measurement points considered by Tóth-Király et al., 2023). Finally, based on accumulated research evidence, we propose a series of a priori multi-target affective commitment scenarios likely to help future research adopt a more theory-grounded approach.

1.3. Theoretical person-centered scenarios

From an empirical perspective, it is noteworthy that despite their reliance on a variety of samples, methods, and profile indicators, the bulk of evidence converges on a relatively limited set of commitment profiles. Keeping in mind that the theoretically hierarchical nature of commitment should be captured by a bifactor operationalization resulting in a global factor representing employees' global levels of affective commitment to their work life, together with a series of specific factors reflecting the extent to which their affective commitment to each specific target deviates from this global level (Perreira et al., 2018), we can first expect the profiles to differ from one another in terms of their level of global commitment. In fact, when we consider the bulk of prior person-centered studies of multi-target commitment profiles relying (Houle, Shafei, et al., 2024; Meyer et al., 2021; Tóth-Király et al., 2023), or not (Becker & Billings, 1993; Cooper et al., 2016; Morin et al., 2011; Swailes, 2004) on a proper bifactor representation, as well as the more extensive set of studies considering only two targets of commitment (organization and supervisor: Meyer et al., 2015; organization and occupation: Loscher et al., 2020; Meyer et al., 2019; Morin et al., 2015; Tsoumbris & Xenikou, 2010; organization and career: Carson et al., 1999; organization and workgroup: Wombacher & Felfe, 2017; organization and clients: van Rosenberg et al., 2023), it is fairly frequent to observe profiles characterized by high, average, or low levels of affective commitment across targets. When relying on a bifactor operationalization, this "level" effect should be captured by the global factor. Based on this consideration, we first propose to label profiles based on this global level of commitment as: (a) *Globally Strongly Committed* (to reflect high global scores representing a high level of commitment to the different work-related targets encompassing their work activities), (b) *Globally Moderately Committed* (to reflect global scores close to the sample average), and (c) *Globally Weakly Committed* (to reflect low global scores¹). These labels could be complemented by adding the word "very" should one need to differentiate among degrees of "weak" or "strong" commitments. These labels should then be complemented by the unique pattern of scores on the specific factors observed in the profile.

When considering the pattern of scores obtained on the specific commitment targets, several studies identified *Balanced* profiles (i.e., Becker & Billings, 1993; Cooper et al., 2016; Meyer et al., 2021; Morin et al., 2011; Swailes, 2004; Tóth-Király et al., 2023), among

¹ We prefer this label to "globally uncommitted" as no study ever assesses all possible mindsets and targets of commitment, and psychometrically, there is no absolute zero in our commitment measures.

which target-specific levels of commitment evidenced no deviation from the global factor (specific scores were close to 0, reflecting the sample average in standardized units). These profiles refer to employees displaying commitments that are mainly congruent with one another, suggesting a lack of conflict among targets in these profiles (Askew et al., 2013; Johnson et al., 2009; Meyer et al., 2021; Tóth-Király et al., 2023). These employees thus seem to experience, at high, moderate, or low levels, a generally consistent commitment profile that generalizes across targets. The presence of a balanced profile is also consistent with past person-centered studies focusing on different work-related constructs (e.g., Gillet et al., 2019; Morin et al., 2017), which has also revealed that for a substantial number of employees, work-related experiences do not involve extremes or imbalance but suggest a more normative and comfortable routine that extends to various facets of the construct under study. Moreover, should we find most profiles to display a balanced orientation, this would call into question the value of distinguishing among different specific work-related targets of commitment when global levels of commitment to work life are considered (Tóth-Király et al., 2023). In these profiles, the level of global commitment remains the primary driver of the outcomes associated with the profile.

Other common configurations have been identified. These configurations are generally dominated either by commitments to: (a) social targets (e.g., coworkers, supervisors, customers), sometimes including the organization itself as a social arena (Becker & Billings, 1993; Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Swailes, 2004; Tóth-Király et al., 2023); (b) one's occupational tasks (e.g., occupation, profession, tasks; Cooper et al., 2016; Houle, Shafei, et al., 2024; Tóth-Király et al., 2023), including the accomplishment of the organization's mission of serving the citizens when commitment to the occupation is not directly measured, as in Meyer et al. (2021); (c) hierarchical/institutional targets (including the organization and/or the supervisor, sometimes jointly, sometimes separately; Becker & Billings, 1993; Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Swailes, 2004; Tóth-Király et al., 2023); and (d) one's career progression (which systematically emerges when commitment to the career is measured; Houle, Shafei, et al., 2024; Morin et al., 2011). We hereafter refer to these configurations as having a *Social Orientation*, an *Occupational Orientation*, a *Hierarchical Orientation*, and a *Career Orientation*, respectively. Importantly, these profiles may reflect situations where different commitments are competing with one another for members of the profiles (Askew et al., 2013; Johnson et al., 2009; Meyer et al., 2021). As target-specific scores reflect a deviation from global commitment, conflicting commitments are likely to be more frequent when employees' levels of global commitment are low or moderate, rather than high. In the presence of a high global commitment, a stronger target-specific commitment may reflect the presence of a stronger bond with one specific target relative to the others, but one that does not interfere with these other bonds. In contrast, when levels of global commitment are low or moderate, higher target-specific commitments are more likely to reflect some form of interference or competing demands.

Morin et al. (2011) tentatively suggested that some of these configurations may be connected to inter-individual differences in the strength of the different needs (affiliation, achievement, and power) proposed in McClelland's (1987; also see McInerney et al., 2018) seminal theory of motivation, based on the recognition of affective commitment as a motivational force (Meyer et al., 2004) with important implications for one's identity (Meyer et al., 2006). More precisely, Morin et al. (2011) argued that profiles with a *Social Orientation* may reflect stronger affiliation motives, whereas profiles with an *Occupational Orientation* may reflect stronger achievement motives. Arguably, profiles with a *Hierarchical Orientation* might reflect a stronger need for power, whereas profiles with a *Career Orientation* may reflect a combined drive for power and achievement.

Morin et al.'s (2011) proposition also make sense from the perspective of self-determination theory (SDT; Deci et al., 2017; Ryan & Deci, 2017), which proposes that optimal work functioning (as well as the development of affective commitment; Meyer, 2014) should be facilitated when the work environment enhances the satisfaction of one's basic psychological needs for autonomy, relatedness, and competence. SDT explicitly acknowledges (Deci et al., 2017; Ryan & Deci, 2017) that these needs are similar to those outlined in McClelland's (1987) theory: (a) The need for relatedness is close to the need for affiliation, which are both defined as a desire to establish meaningful social connections and experience a sense of belonging; (b) the need for competence, defined by SDT as the desire to experience a sense of mastery, is very close to the need for achievement, defined by McClelland (1987) as a desire to excel and succeed (i.e., to demonstrate one's mastery); and (c) the need for power, defined by McClelland (1987) as the desire to influence others and make one's own decisions, although distinct from the need for autonomy as defined by SDT as the desire to experience a sense of volition, substantially overlaps with it as power requires autonomy.

Importantly, these theories do not necessarily assume dispositional differences in the relative strength of these needs, which is consistent with the theoretical positioning of commitment primarily as a non-dispositional force (i.e., Meyer, 2016; Meyer et al., 2002, 2004, 2006). More precisely, McClelland (1987) suggests that we are primarily driven by attempts to fulfill specific needs (affiliation, achievement, and power), while SDT (Deci et al., 2017; Ryan & Deci, 2017) suggests that we all seek to equally fulfill all three needs. Indeed, SDT (Ryan & Deci, 2017) expects that the balanced fulfillment of all three needs should be optimal to maximally support well-being and optimal functioning, a proposition that has so far received some empirical support (Dysvik et al., 2013; Gillet et al., 2020; Sheldon & Niemiec, 2006).

These two theoretical perspectives allow us to enrich Morin et al.'s (2011) early proposal to suggest that differences in the extent to which one's work environment facilitates the satisfaction of each of these needs should be connected to profiles characterized by a stronger commitment to the specific targets most likely to fulfill these needs. Indeed, profiles with a *Social Orientation* should be more likely when experiencing a work environment supportive of the need for relatedness/affiliation (e.g., coworker support, supervisor support, leader-member exchange), as such environments are associated with feelings of appreciation, emotional availability, and caring (Gillet et al., 2019). Profiles with an *Occupational Orientation* should be more likely when experiencing a work environment supportive of the need for competence/achievement (e.g., organizational support, training, feedback), as such environments are associated with an increase in employees' performance (Nielsen et al., 2017). Profiles with a *Hierarchical Orientation* should be more likely when experiencing a work environment in which one's supervisor and work design support the need for autonomy (e.g., authentic leadership, transformational leadership, empowering management) as such environments are associated with the experience

of a sense of volition, trust, understanding, and encouragement (Huyghebaert-Zouaghi, Morin, et al., 2023). In contrast, profiles with a *Career Orientation* should be more likely when experiencing a work environment that facilitates the fulfillment of the needs for autonomy and competence. Indeed, prior studies have shown that employees who feel able to act efficiently of their own tend to experience higher levels of commitment to their career (Dahling & Lauricella, 2017; Desmarais & Grenier, 2023). Finally, balanced profiles may occur when the work environment facilitates the fulfillment of all three needs at a similar degree (i.e., High, Moderate, or Low, reflecting one's level of global commitment). In sum, we expect that:

Hypothesis 1. Four to six profiles of workplace affective commitment will be identified.

Hypothesis 2. Profiles characterized by High, Moderate, and Low levels of global workplace affective commitment will be identified (*Strongly Globally Committed, Moderately Globally Committed, and Weakly Globally Committed*).

Hypothesis 3. Beyond their level of global commitment, profiles displaying a Balanced Orientation, a Social Orientation, an Occupational Orientation, a Hierarchical Orientation, and a Career Orientation will be identified.

1.4. A longitudinal person-centered perspective

As noted by Meyer and Morin (2016), it is critical to ascertain the stability of person-centered solutions to support their use as guides for the development of interventions tailored at distinct profiles of employees. Indeed, just like too much stability suggests that interventions are particularly demanding, too much variability suggests that intervention effects cannot be maintained. The present study examines the extent to which the identified workplace affective commitment profiles remain stable over a period of four months. In line with prior research (Anderson et al., 2022; Caesens et al., 2020), we expected this specific time lag to be suitable because it goes beyond daily or weekly fluctuations (e.g., ten Hoeve et al., 2020) but it is still short enough to capture changes that might be missed over longer time spans (e.g., Hakanen et al., 2008).

Two distinct forms of longitudinal stability can be considered (Huyghebaert-Zouaghi et al., 2022; Sandrin et al., 2020). First, within-sample stability focuses on the nature of the profiles themselves, which can change over time. For example, the number (configural similarity) or structure (structural similarity) of the profiles could change, which would suggest that the profiles have a limited utility for intervention as they primarily reflect transient phenomena or that the sample under consideration has recently been exposed to some important internal or external changes (Morin et al., 2016b). In contrast, time may alternatively change the degree of similarity among profile members (dispersion similarity), or profile size (distributional similarity). These two types of differences highlight that the profiles may be reactive to internal or external changes, and potentially to interventions as well. Second, within-person stability focuses on changes in employees' profile membership over time (Huyghebaert-Zouaghi et al., 2022; Sandrin et al., 2020) and can be observed in the absence of within-sample changes. These indicators of stability are descriptive, rather than theoretical. Like tests of measurement invariance (Morin et al., 2016b), they concern the generalizability of profile solutions over time as well as the extent to which we can expect employees to retain the same profile over time.

Empirically, previous research has shown that employees' workplace affective commitment can change over time as a result of changing work circumstances (Gao-Urhahn et al., 2016). Despite this acknowledgement, variable-centered longitudinal studies of employees' workplace affective commitment have generally revealed high levels of stability in ratings over periods of four (Houle et al., 2022) to six (Wiese & Stertz, 2023) months. These observations are consistent with theoretical propositions (Klein et al., 2022) assuming that workplace affective commitment should remain relatively stable over time. Similarly, Kam et al. (2016) found the same number and shape of organizational (a single target) commitment profiles, as well as a very high level of within-person stability (<3% of employees changing profiles) over an eight-month period characterized by strategic organizational changes. Similarly, the six profiles identified by Tóth-Király et al. (2023) were replicated across the three measurement points at one-month intervals during the COVID-19 pandemic. Other recent research has confirmed the within-sample and within-person stability of organizational (Xu & Payne, 2018) and occupational (Houle et al., 2020) commitment profiles. Taken together, these empirical and theoretical considerations lead us to expect that:

Hypothesis 4. The profiles will display evidence of configural, structural, dispersion, and distributional within-sample similarity.

Hypothesis 5. The profiles will display high levels ($\geq 70\%$; Huyghebaert-Zouaghi et al., 2022) of within-person stability.

1.5. A construct validation perspective

Another critical step in the assessment of the construct validity of profiles is to document their theoretical and practical implications via an examination of their associations with theoretically relevant predictors and outcomes (Marsh et al., 2009; Meyer & Morin, 2016). Indeed, commitment profiles have little value for managerial practice without accompanying knowledge regarding possible predictors of these configurations. Likewise, information on the implications of these profiles in terms of outcomes is also critical to the assessment of their relative desirability.

1.5.1. Authentic leadership as a predictor of profile membership

Authentic leaders seek to facilitate a positive and trustful climate in their work units via relational transparency (presenting oneself authentically and honestly to others), self-awareness (being aware of one's impact on others), balanced information processing (relying on an objective examination of relevant information when making decisions), and an internalized moral perspective (acting in

a way that is consistent with one's moral values and standards) (Walumbwa et al., 2008). Authentic leadership has been repeatedly found to be associated with a variety of positive outcomes for employees and organizations (Banks et al., 2016; Hoch et al., 2018), such as workplace affective commitment to, identification to, and satisfaction with a variety of work-related targets, including the organization, occupation, supervisor, and workgroup (e.g., Avolio et al., 2004; Cerne et al., 2013; Duarte et al., 2021; Gardner et al., 2005; Lévesque-Côté et al., 2021; Neider & Schriesheim, 2011; Rahimnia & Sharifirad, 2014; Saleem et al., 2023). By taking employees' opinions into account, providing accurate and relevant feedback without any ill intent, and encouraging their subordinates to take initiatives, authentic leaders are likely to help nurture employees' sense of connection with their organizations, colleagues, supervisors, and even occupation (e.g., Leroy et al., 2015). Authentic leaders can also promote affective commitment in general and to social targets more specifically via the creation of trusting relationships and supportive work climates, as well as by spreading their own positive emotions (Avolio et al., 2004; Gardner et al., 2005; Kalay et al., 2020). Employees are expected to reciprocate for these positive work characteristics via stronger affective commitment to the targets most closely related to these benefits (Duarte et al., 2021). We thus propose that:

Hypothesis 6. Higher levels of authentic leadership will be associated with a higher likelihood of membership in profiles characterized by high levels of global commitment to the work life (*Strongly Globally Committed* > *Moderately Globally Committed* > *Weakly Globally Committed*).

Hypothesis 7. Higher levels of authentic leadership will be associated with a higher likelihood of membership in profiles characterized by a *Balanced Orientation*, *Social Orientation*, and *Hierarchical Orientation* (particularly those dominated by specific commitment to the supervisor) relative to profiles characterized by an *Occupational Orientation* and by a *Career Orientation*.

Some recently expressed reservations about the relevance and effectiveness of authentic leadership behaviors. For instance, Alvesson and Einola (2019) lamented the poor quality of the theoretical foundations of research on authentic leadership, expressed doubts that authentic leadership could ever be truly compatible with workplace requirements, and even suggested that authentic leadership can sometimes be harmful to both supervisors and subordinates. We believe that the current study can help inform some aspects of the theoretical debate that has emerged from these criticisms (Alvesson & Einola, 2022; Einola & Alvesson, 2021; Gardner & McCauley, 2022a) by helping document the effectiveness of authentic leadership behaviors for employees' commitment profiles. Specifically, should our results support the idea that authentic leadership can help foster affective commitment profiles characterized by high global levels of affective commitment (e.g., a *Strongly Globally Committed* profile), and that these profiles are in turn associated with positive outcomes (e.g., high job satisfaction), then this would help support the desirability of these behaviors for both employees and their organizations. More generally, our results will thus be able to provide some evidence supporting, or not, the idea that "authentic leadership is a real and important phenomenon that merits scholarly attention and practical application" (Gardner & McCauley, 2022b, p. 833).

1.5.2. Outcomes of profile membership

To document the outcome implications of our profiles, we considered a series of positive indicators of employees' functioning, including perceived health, job satisfaction, and performance (work efficiency and improvement-oriented behaviors). These outcomes were selected to achieve a comprehensive understanding of the psychological (i.e., job satisfaction) and well-being (i.e., health) implications of workplace affective commitment profiles for employees themselves, while also considering critical outcomes from the perspective of their employing organizations (work efficiency and improvement-oriented behaviors). Moreover, perceived health and job satisfaction are themselves recognized as positive drivers of various aspects of performance and functioning (e.g., Madigan & Kim, 2021; Montano et al., 2017; Xu et al., 2023). Importantly, all these variables represent well-known outcomes of workplace affective commitment directed at a variety of targets (e.g., Guo et al., 2022; Houle, Shafei, et al., 2024; Meyer et al., 2019; Meyer et al., 2021; Morin et al., 2011).

From a theoretical perspective, we can expect employees displaying a high level of global commitment to the work life to display more desirable outcomes than those displaying moderate or low levels of global commitment, as well as those with moderate levels of global commitment to be better off than their weakly committed colleagues (e.g., Houle, Shafei, et al., 2024; Meyer et al., 2019; Meyer et al., 2021; Morin et al., 2011). Indeed, high levels of global commitment reflect a generally consistent pattern of commitment across targets and does not involve conflicting or incompatible commitments (e.g., Askew et al., 2013; Johnson et al., 2009; Klein et al., 2022; Meyer et al., 2021). From the theoretical recognition of commitment as a positive driver of functioning (e.g., Meyer, 2016; Meyer et al., 2002; Spurk et al., 2019), we can thus expect these employees to display the most desirable outcomes (i.e., higher levels of health, performance, and job satisfaction) independently from their levels of target-specific commitments. In contrast, moderate levels of global commitment to the work life are more likely to comprise incompatible or even conflicting commitments (i.e., some high, some low), which may interfere with optimal functioning (e.g., Askew et al., 2013; Johnson et al., 2009; Klein et al., 2022; Meyer et al., 2021). Thus, although these employees should display more desirable outcomes than their weakly committed colleagues, their outcome levels should differ in a more important manner as a function of their levels of target-specific commitments. Finally, although employees displaying weak levels of global commitment to the work life can also display converging commitments, leading them to display the least desirable outcome levels, high levels of target-specific commitment should somehow protect them against most undesirable outcome levels by helping them to maintain at least some limited affective bonds in their workplace commitments (e.g., Askew et al., 2013; Johnson et al., 2009; Klein et al., 2022; Meyer et al., 2021).

Turning our attention to target-specific commitments, we argue that they should be less relevant to the outcome levels observed in the globally committed profiles than to those observed in the moderately globally committed profiles, with the weakly committed

profiles falling in between. In accordance with this assertion, previous studies have shown that moderately globally committed profiles dominated by a specific target (e.g., career in Morin et al., 2011) or displaying a combination of high versus low specific commitments (e.g., low organizational commitment coupled with high social commitments in Meyer et al., 2021) tended to be associated with less desirable outcome levels than those reporting more balanced commitment levels. Although similar considerations also apply to profiles with weak levels of global commitment to the work life, their levels of target-specific commitment should be more likely to reflect a deviation that compensates for their low global commitment to work life, and thus be associated with more desirable outcome levels than those with a more balanced configuration. Based on these considerations, we propose that:

Hypothesis 8. Profiles characterized by higher levels of global commitment to the work life will be associated with higher levels of perceived health, work efficiency, improvement-oriented behaviors, and job satisfaction (*Strongly Globally Committed* > *Moderately Globally Committed* > *Weakly Globally Committed*).

Hypothesis 9. Target-specific commitments will be more relevant to outcome associations in profiles characterized by moderate levels of global commitment to the work life, than in those characterized by weak global levels of commitment, and will be least relevant to the outcomes experienced in profiles characterized by strong levels of global commitment to the work life (*Moderately Globally Committed* > *Weakly Globally Committed* > *Strongly Globally Committed*).

Hypothesis 10. Among profiles characterized by moderate or low levels of global commitment to the work life, target-specific commitments suggestive of incompatibility (i.e., a combination of high and low specific levels, or only low specific levels) will be associated with lower levels of perceived health, work efficiency, improvement-oriented behaviors, and job satisfaction than balanced profiles, while the highest outcome levels will be observed in profiles reporting a subset of target-specific commitments exceeding their global levels.

1.6. Contextual Considerations: Firefighting Stations

The current study was conducted among firefighting stations employees, including professional firefighters, volunteer firefighters, and administrative personnel. This work context differs from that considered in previous multi-target studies of affective commitment profiles, although previous studies also considered widely distinct types of samples: a military supply organization in Becker and Billings (1993); University employees in Cooper et al. (2016); newcomers from a variety of sectors in Houle, Shafei, et al. (2024); a police organization in Meyer et al. (2021); service organizations in Morin et al. (2011); accountants in Swailes (2004); and employees from a variety of sectors in Tóth-Király et al. (2023). Although we have no a priori reason to expect results to be drastically impacted by the nature of our sample, which is consistent with the similarity in the results obtained in these previous studies, this diversity is critical in person-centered research, which is by nature cumulative (Meyer & Morin, 2016; Morin et al., 2016b; Solinger et al., 2013). Indeed, person-centered evidence is built from an accumulation of studies, which are required to differentiate between the common set of profiles that will emerge across most contexts, those more specific profiles that are more likely to be found in specific contexts, and the less relevant sets of profiles that seem to reflect random sampling variations.

Yet, the firefighting station context may influence how our constructs are experienced and related to one another. For instance, although there might be similarities between employees from firefighting stations versus police organizations (i.e., protecting the public and risking their lives), each do it in their own way and within distinct organizational structures (e.g., hierarchical in police organizations versus team-based authoritarian in firefighting stations). These differences might influence the way commitments to the supervisor and colleagues are experienced, as well as the role of authentic leadership. Commitment targets selected for this study (i.e., organization, supervisor, coworkers, occupation, work, and career) were thus selected for their relevance to firefighting employees.

Indeed, firefighting employees are likely to develop a strong emotional link to their organization, likely to be seen as the entity responsible for their job stability and in charge of providing sufficient resources to allow them to ensure their ability to protect citizens (Allen et al., 2016). Job stability also makes it more likely that employees will experience a longer-term association with their organization. Firefighting stations are also unique in having a team-based organization coupled with a very strong line of command, which is critical to the ability to work efficiently in crisis situations. This means that both the supervisor and colleagues are likely to play a critical role for firefighting employees (Huynh et al., 2013; Smith et al., 2016). The public benefits of their work (protecting citizens) may also lead them to experience higher levels of job meaningfulness (Zeffane & Melhem, 2017), which may be crucial to their willingness to dedicate their lives to a dangerous occupation (Wagner & O'Neill, 2012). Working in firefighting stations, especially as firefighters, is a unique way of life, organized around long hours, changing shifts, and availabilities for emergencies, which means that work itself is likely to occupy an important position in the lives of these employees (Sandrin et al., 2019). Finally, numerous measures (e.g., training, career assessment and planning) exist to assist employees from firefighting stations guidance and new employment perspectives throughout the span of their career, which may lead some of them to move on to a new occupation within the same organization.

Our focus on authentic leadership is also consistent with the values typically espoused within firefighting stations, in which supervisors need to take time to understand situations, people, and dynamics before acting. Supervisors must also be able to remove emotions from their decisions, while remaining fair to their subordinates (Walumbwa et al., 2008). Knowing your team and yourself, trusting them, being trusted by them, being able to be honest with them, and having a good interaction with them are all central to ensure efficiency in crisis situations (e.g., Teo et al., 2017). Similar considerations were used to guide outcome selection. For instance, firefighting employees need to be in good health as their work is likely to expose them to emotional (e.g., victims, death), mental (e.g., lack of recovery time, interventions requiring a great deal of vigilance), and physical (e.g., interventions that are sometimes very

dangerous and tiring) demands (Senger et al., 2023). Likewise, job satisfaction, efficiency, and continuous improvement are all recognized as important determinants of work performance among firefighting employees (DeJoy et al., 2017; Rubaca & Khan, 2021).

2. Method

2.1. Participants and procedure

Participants were invited to complete an online questionnaire twice over a period of four months. Before participating, they were told that they could withdraw from the study at any time, and that participation was confidential and voluntary. To ensure confidentiality, participants were asked to create a unique identifier to allow us to connect their responses over time. The sample included 468 individuals working in firefighting stations (19.4 % females) located in France who completed our questionnaires at Time 1 (T1). Of those, 139 (25.9 % females; 29.7 % of the T1 sample) completed the same questionnaires at Time 2 (T2). In total, 196 (41.9 %) were professional firefighters, 181 were volunteer firefighters (38.7 %), and 91 were administrative workers (19.4 %). Participants had a mean age of 45.81 years ($SD = 8.42$), a mean tenure in their organization of 17.52 years ($SD = 9.56$), and a mean tenure in their position of 6.29 years ($SD = 5.30$). Most (81.8 %) held a full-time position, and 396 participants (84.6 %) had a supervisory role. This supervisory role is primarily operational and implies that participants occupying these roles have other employees placed under their responsibility in the performance of their duties. This is related to the strong line of command present in this work environment in which all tasks are the responsibility of an individual accompanied by a greater or lesser number of employees, depending on the complexity of the mission (Jahn & Black, 2017). Nevertheless, all participants, including those with a supervisory role, had an immediate supervisor to whom they were asked to refer in questions about affective commitment to the supervisor.

Finally, 171 participants had a university diploma (36.5 %), 188 had a certificate of vocational training (40.2 %), 102 had a high school diploma (21.8 %), and 7 (1.5 %) had no diploma. Attrition analyses revealed no differences between participants who completed one versus two time points on our key variables. However, females were slightly more represented than males, participants with a university diploma were more represented than those with a lower level of education, and administrative workers were more represented than firefighters among those who participated at both time points. The impact of these variables on our results was thus investigated through a verification of their relevance as controls.

2.2. Measures

2.2.1. Workplace affective commitment

Affective commitment to the organization (3 items; e.g., *I am proud to say that I work for my organization*; $\alpha_{T1} = 0.69$; $\alpha_{T2} = 0.80$), supervisor (3 items; e.g., *I like the values conveyed by my immediate supervisor*; $\alpha_{T1} = 0.88$; $\alpha_{T2} = 0.89$), coworkers (3 items; e.g., *My coworkers make me feel like going to work*; $\alpha_{T1} = 0.83$; $\alpha_{T2} = 0.82$), occupation (5 items; e.g., *I would be happy to practice this profession until retirement*; $\alpha_{T1} = 0.84$; $\alpha_{T2} = 0.85$), work (3 items; e.g., *Work is a priority in my life*; $\alpha_{T1} = 0.72$; $\alpha_{T2} = 0.78$), and career (3 items; e.g., *It is important for me to move up the ranks or obtain promotions*; $\alpha_{T1} = 0.74$; $\alpha_{T2} = 0.73$) were measured using the short form (originally developed and validated in French and English by [Perreira et al., 2018](#)) of the Workplace Affective Commitment Multidimensional Questionnaire ([Morin et al., 2009](#)). All items were rated on a five-point scale (*Strongly Disagree* to *Strongly Agree*) and can be used together to assess participants' global levels of affective commitment to their work life ($\alpha_{T1} = 0.90$; $\alpha_{T2} = 0.90$) ([Perreira et al., 2018](#)).

2.2.2. Authentic leadership

Participants completed the Authentic Leadership Questionnaire ([Walumbwa et al., 2008](#); French version by [Fortin-Bergeron et al., 2017](#)), which covered the four dimensions of self-awareness (4 items; e.g., *My supervisor seeks feedback to improve interactions with others*; $\alpha_{T1} = 0.92$; $\alpha_{T2} = 0.92$), relational transparency (4 items; e.g., *My supervisor says exactly what he or she means*; $\alpha_{T1} = 0.91$; $\alpha_{T2} = 0.92$), balanced processing (4 items; e.g., *My supervisor listens carefully to different points of view before coming to conclusions*; $\alpha_{T1} = 0.88$; $\alpha_{T2} = 0.90$), and internalized moral perspective (4 items; e.g., *My supervisor demonstrates beliefs that are consistent with actions*; $\alpha_{T1} = 0.90$; $\alpha_{T2} = 0.90$). Items were rated on a seven-point scale (*Strongly Disagree* to *Strongly Agree*) and can be used together to assess participants' perceptions of their supervisor global levels of authentic leadership ($\alpha_{T1} = 0.96$; $\alpha_{T2} = 0.97$) ([Fortin-Bergeron et al., 2017](#)).

2.2.3. Perceived health

Perceived health was assessed with four items ($\alpha_{T1} = 0.82$; $\alpha_{T2} = 0.84$) from the Medical Outcome Study ([Stewart & Ware, 1992](#); French version by [Gillet et al., 2017](#)): (a) *In general, would you say your health is excellent, very good, good, fair, or poor?* (from 1 – poor to 5 – excellent); (b) *To what extent do you have any particular health problems?* (from 1 – no extent to 5 – a very great extent); (c) *Thinking about the past two months, how much of the time has your health kept you from doing the kind of things other people your age do?* (from 1 – none of the time to 5 – all of the time); and (d) *To what extent do you feel healthy enough to carry out things that you would like to do?* (from 1 – no extent to 5 – a very great extent).

2.2.4. Behavioral empowerment

Work efficiency (four items; e.g., *I persevere to achieve the best standards of quality in my work*; $\alpha_{T1} = 0.90$; $\alpha_{T2} = 0.88$) and improvement-oriented behaviors (three items; e.g., *I try to find ways to better reach my objectives*; $\alpha_{T1} = 0.92$; $\alpha_{T2} = 0.85$) were assessed using a scale developed in French by [Boudrias and Savoie \(2006\)](#). All items were rated on a seven-point scale (*Never* to *Always*).

2.2.5. Job satisfaction

We relied on a single-item measure initially adapted to French by Huyghebaert et al. (2018) to assess job satisfaction (*How satisfied are you with your job?*) from previously validated single-item measures of job satisfaction (Fisher et al., 2016; Wanous et al., 1997). This item was rated on a four-point scale (*Dissatisfied to Satisfied*).

2.3. Analyses

2.3.1. Preliminary analyses

Preliminary factor analyses were first conducted to examine the psychometric properties of all multi-item measures. The specification of these analyses and their results are reported in the online supplements in Tables S1 to S5 (covering factor structure, composite reliability, and measurement invariance over time).² All of our main analyses were based on factor scores extracted from these preliminary models, estimated in standardized units ($SD = 1$; $M = 0$; e.g., Morin et al., 2016b), and specified as longitudinally invariant to ensure consistency (Millsap, 2011). Factor scores are partially corrected for random measurement error (Skrondal & Laake, 2001) and maintain the properties of the measurement model (e.g., invariance) better than scale scores (Morin et al., 2016a). Variable correlations are reported in Table S5 of the online supplements.

2.3.2. Latent profile analyses (LPA)

Our main analyses relied on the maximum likelihood robust (MLR) estimator implemented in Mplus 8.9 (Muthén & Muthén, 2023) and on full information maximum likelihood (FIML) procedures to handle missing responses and time points (Enders, 2010). FIML allows estimating all models using responses from all participants who completed at least one time point ($n = 468$), rather than relying on the problematic listwise elimination of participants who did not complete both time points ($n = 329$). FIML has been found to be robust to very high levels of missing responses (reaching 70 %) under missing at random assumptions (Lee et al., 2019; Newman, 2003), which are typically met in longitudinal analyses where missingness can be conditioned on all variables included in the models, including the variables themselves at the previous time point (Enders, 2010).

Time-specific LPA including one to eight profiles were first estimated, allowing the means and variances of the commitment factors to differ across profiles (Morin & Litalien, 2019). These models relied on 5000 random starts, 1000 iterations, and 200 optimizations (Hipp & Bauer, 2006). More complex longitudinal models relied on 10,000 random starts, 1000 iterations, and 500 optimizations.

Identifying the optimal number of profiles to retain is a complex decision that relies on multiple sources of information, including (Marsh et al., 2009; Morin & Litalien, 2019): (a) whether each added profile brings a meaningful contribution to the solution; (b) whether each added profile is theoretically consistent; and (c) whether solutions with added profiles are statistically proper (e.g., convergence, lack of negative variance estimates). This decision can also be guided by a variety of statistical indicators (McLachlan & Peel, 2000). More precisely, a lower value on the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Consistent AIC (CAIC), and sample-size Adjusted BIC (ABIC) indicate better fitting models, whereas statistically significant Bootstrap Likelihood Ratio Test (BLRT) and adjusted Lo et al.'s (2001) Likelihood Ratio Test (aLMR) support a model relative to one including fewer profiles. Statistical research has shown that the BIC, CAIC, ABIC, and BLRT, but not the AIC and aLMR, are efficient at guiding the identification of the optimal number of latent profiles (Diallo et al., 2016, 2017). For this reason, we only report the AIC and aLMR to ensure complete disclosure, but do not use them to guide model comparison and selection. These tests also present a strong sample size dependency (Marsh et al., 2009) and thus often fail to converge on a specific solution. When this happens, a plateauing in the decrease in the value of each of these indicators can be used to pinpoint potential solutions. In practice (Meyer & Morin, 2016; Morin & Litalien, 2019), statistical indicators are first considered to help pinpoint a range of acceptable solutions, which are then examined to eliminate statistically improper solutions, before being contrasted in terms of meaningfulness and theoretical conformity. Lastly, we also report an indicator of classification accuracy, the entropy, which should not be used to select the optimal number of profiles, but provides useful descriptive information (Lubke & Muthén, 2007).

2.3.3. Longitudinal tests of profile similarity

When the same number of profiles is identified at both time points, the two time-specific solutions can be integrated into a single longitudinal LPA, which can be used to conduct longitudinal tests of within-sample profile similarity (Morin et al., 2016b; Morin & Litalien, 2017). These tests are realized in sequence, starting by assessing whether the same number of profiles are identified over time (i.e., the comparison of the two time-specific LPAs). Both time-specific solutions are then integrated into a single model of *configural* similarity to which equality constraints are imposed in sequence on the indicator means (*structural* similarity), indicator variances (*dispersion* similarity), and profile size (*distributional* similarity). Model comparisons rely on the BIC, CAIC, and ABIC, and profile similarity is supported when two of these indicators decrease in a model relative to the previous one in the sequence (Morin et al., 2016b).

² Based on prior research, affective commitment (Meyer et al., 2021; Perreira et al., 2018) and authentic leadership (Gillet et al., 2022; Huyghebaert-Zouaghi et al., 2022) were both estimated using bifactor exploratory structural equation models (Morin et al., 2016a), allowing us to estimate global levels of commitment and authentic leadership while accounting for subscales specificity. For authentic leadership, as our objective was limited to the role of these global levels (rather than the unique role of subscales), only scores on this global factor were used in our analyses. All global and specific scores were used for commitment (Meyer et al., 2021).

2.3.4. Latent transition analyses (LTA)

A LTA specification (allowing T1 profiles to predict T2 profiles) will then be incorporated to the most similar longitudinal LPA solution to investigate within-person stability and profile transitions (Collins & Lanza, 2010). This solution and all upcoming analyses will be estimated using the recommended manual three-step approach (Asparouhov & Muthén, 2014; Morin & Litalien, 2017).

2.3.5. Predictors and outcomes of profile membership

We initially investigated the need to incorporate demographic covariates (sex, age, education, professional group [dummy coded as 1- any firefighters versus administrative workers and 2- professional firefighters versus other employees], work time, tenure in the organization, tenure in the current position, and supervisory role) as control variables in the upcoming analyses. These variables were first incorporated to the solution through a multinomial logistic regression link function, and four alternative models were contrasted. A first null effects model assumed no associations between these demographic characteristics and the profiles. A second model freely estimated the effects of these variables at both time points, and predictions involving the T2 profiles were allowed to differ across T1 profiles (i.e., reflecting the effect of these variables on specific transitions). A third model only allowed these predictions to differ as a function of time. A last model (predictive similarity) constrained these associations to equality over time. Associations between the profiles and global levels of authentic leadership were then examined in the same sequence.

Time-specific outcomes were finally incorporated to the solution, and their levels were allowed to differ across profiles and time points. In these analyses, T2 outcomes are controlled for their variance shared with T1 outcomes (i.e., stability). A second model of explanatory similarity was then estimated by fixing these associations to equality across time points. The statistical significance of between-profile differences in outcome levels was assessed in a single step using the multivariate delta method (Raykov & Marcoulides, 2004) implemented in Mplus via the Model Constraint function.

3. Results

3.1. Latent profile analyses

The model fit indicators associated with the time-specific latent profile analyses are reported in Table 1. Whereas the ABIC and BLRT failed to converge on a specific solution at both time points, the CAIC tentatively supported a solution including four profiles at both time points, while the BIC tentatively supported a five-profile solution at both time points. Based on this information, we examined solutions including four and five profiles, as well as adjacent solutions including three and six profiles. Consistent with the fact that the ABIC and BLRT kept on suggesting adding profiles, our results showed that adding a fourth, fifth, and sixth profile had a meaningful contribution to the solution. For instance, if we consider the solution illustrated in Fig. 1, Profiles 1, 2, and 6 were already present in the three-profile solution, Profile 3 was added in the four-profile solution, Profile 4 was added in the five-profile solution, and Profile 6 (already identified in Morin et al., 2011) was added in the six-profile solution. In contrast, adding a seventh profile only led to the arbitrary division of one profile into smaller ones with a similar configuration. On this basis, the six-profile solution was selected at both time points, thus supporting Hypothesis 1.

The model fit indicators associated with the longitudinal tests of profile similarity are reported in Table 2. Relative to the first model of configural similarity, the model of structural similarity resulted in lower BIC, CAIC, and ABIC values, and was thus retained. The next

Table 1
Results from the latent profile analysis models at Times 1 and 2.

Model	LL	#fp	Scaling	AIC	CAIC	BIC	ABIC	Entropy	aLMR	BLRT
Time 1										
1 Profile	-4250.714	14	1.203	8529.428	8601.506	8587.506	8543.073	Na	Na	Na
2 Profiles	-4046.581	29	1.208	8151.162	8300.468	8271.468	8179.428	0.664	< 0.001	< 0.001
3 Profiles	-3951.831	44	1.204	7991.661	8218.194	8174.194	8034.547	0.749	0.032	< 0.001
4 Profiles	-3893.693	59	1.193	7905.385	8209.145	8150.145	7962.891	0.814	0.276	< 0.001
5 Profiles	-3840.986	74	1.142	7829.972	8210.959	8136.959	7902.098	0.786	0.317	< 0.001
6 Profiles	-3796.608	89	1.059	7771.215	8229.429	8140.429	7857.961	0.823	0.218	< 0.001
7 Profiles	-3757.646	104	1.125	7723.292	8258.732	8154.732	7824.658	0.813	0.359	< 0.001
8 Profiles	-3731.296	119	1.125	7700.591	8313.259	8194.259	7816.578	0.804	0.351	< 0.001
Time 2										
1 Profile	-3847.256	14	1.251	7722.512	7794.590	7780.590	7736.157	Na	Na	Na
2 Profiles	-3612.914	29	1.129	7283.828	7433.134	7404.134	7312.094	0.697	< 0.001	< 0.001
3 Profiles	-3542.525	44	1.163	7173.049	7399.582	7355.582	7215.935	0.775	0.023	< 0.001
4 Profiles	-3485.215	59	1.167	7088.431	7392.191	7333.191	7145.937	0.786	0.052	< 0.001
5 Profiles	-3438.954	74	1.232	7025.908	7406.895	7332.895	7098.035	0.764	0.634	< 0.001
6 Profiles	-3399.871	89	1.276	6977.741	7435.955	7346.955	7064.488	0.783	0.434	< 0.001
7 Profiles	-3364.670	104	1.124	6937.340	7472.181	7368.181	7038.707	0.805	0.764	0.014
8 Profiles	-3339.444	119	1.106	6916.889	7529.557	7410.557	7032.876	0.807	0.573	< 0.001

Note. LL: Model loglikelihood; #fp: Number of free parameters; scaling: Scaling correction factor associated with robust maximum likelihood estimates; AIC: Akaike information criteria; CAIC: Constant AIC; BIC: Bayesian information criteria; ABIC: Sample size adjusted BIC; aLMR: Adjusted Lo-Mendel-Rubin likelihood ratio test; and BLRT: Bootstrap likelihood ratio test.

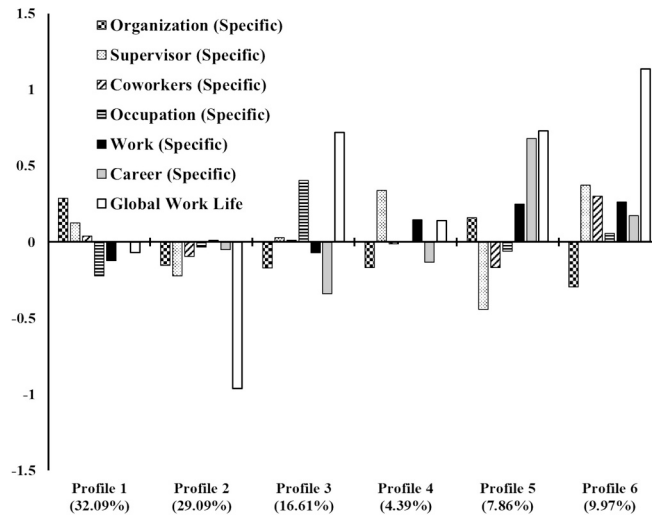


Fig. 1. Final six-profile solution.

Note. Profile indicators are factor scores estimated in standardized units ($M = 0$; $SD = 1$); Profile 1: Moderately Globally Committed with a Hierarchical-Organizational Orientation; Profile 2: Weakly Globally Committed with a Balanced Orientation; Profile 3: Strongly Globally Committed with an Occupational Orientation; Profile 4: Moderately Globally Committed with a Hierarchical-Supervisor Orientation; Profile 5: Strongly Globally Committed with a Career Orientation; and Profile 6: Strongly Globally Committed with a Social Orientation.

models of dispersion and distributional similarity were similarly supported by the data. The model of distributional similarity was thus retained for interpretation, thus supporting Hypothesis 4. The results from this model are graphically displayed in Fig. 1 and reported in Tables S6 and S7 of the online supplements. This model was associated with a high level of classification accuracy (see Table S7: 83.4 % to 97.5 % at T1; 80.5 % to 91.4 % at T2), consistent with the high entropy of 0.796 associated with this solution.

Profile 1 displayed close to average levels of global commitment to the work life, accompanied by close to average specific levels of commitment to most other targets, but dominated by slightly above average specific levels of commitment to the organization. This Moderately Globally

Table 2
Results from the time-specific and longitudinal models.

Model	LL	#fp	Scaling	AIC	CAIC	BIC	ABIC	Entropy
Final Latent Profile Analyses								
Time 1	-3796.608	89	1.059	7771.215	8229.429	8140.429	7857.961	0.823
Time 2	-3399.871	89	1.276	6977.741	7435.955	7346.955	7064.488	0.783
Longitudinal Latent Profile Analyses								
Configural Similarity	-7199.941	178	1.206	14,755.883	15,672.310	15,494.310	14,929.375	0.789
Structural Similarity	-7246.995	136	1.329	14,765.991	15,466.182	15,330.182	14,898.547	0.772
Dispersion Similarity	-7291.447	94	1.806	14,770.894	15,254.850	15,160.850	14,862.514	0.756
Distributional Similarity	-7284.973	89	2.008	14,747.945	15,206.159	15,117.159	14,834.691	0.796
Predictive Similarity: Demographics								
Null Effects Model	-3541.913	89	0.906	7261.825	7720.039	7631.039	7348.571	0.920
Profile-Specific Free Relations with Predictors	-3414.463	449	0.313	7726.926	10,038.588	9589.588	8164.557	0.941
Free Relations with Predictors	-3461.661	179	0.819	7281.322	8202.898	8023.898	7455.790	0.940
Equal Relations with Predictors	-3508.101	134	0.923	7284.202	7974.096	7840.096	7414.809	0.929
Predictive Similarity: Authentic Leadership								
Null Effects Model	-1920.486	40	0.718	3920.971	4126.910	4086.910	3959.958	0.920
Profile-Specific Free Relations with Predictors	-1849.614	80	1.829	3859.228	4271.106	4191.106	3937.203	0.918
Free Relations with Predictors	-1857.649	50	0.736	3815.299	4072.722	4022.722	3864.032	0.923
Equal Relations with Predictors	-1861.323	45	0.785	3812.465	4044.326	3999.326	3856.506	0.920
Explanatory Similarity								
Free Relations with Outcomes	-4955.558	91	0.926	10,093.116	10,561.626	10,470.626	10,181.812	0.920
Equal Relations with Outcomes	-4967.715	67	1.162	10,069.430	10,414.377	10,347.377	10,134.733	0.918

Note. LL: Model loglikelihood; #fp: Number of free parameters; Scaling: Scaling correction factor associated with robust maximum likelihood estimates; AIC: Akaike information criteria; CAIC: Constant AIC; BIC: Bayesian information criteria; ABIC: Sample size adjusted BIC.

Committed with a Hierarchical-Organizational Orientation profile was the largest, corresponding to 32.09 % of the participants. Profile 2 represented participants reporting very low global levels of commitment to their work life, coupled with close to average levels across all specific targets of commitments. This *Weakly Globally Committed with a Balanced Orientation* profile was the second largest, corresponding to 29.09 % of the participants. Profile 3 represented participants reporting high global levels of commitment to their work life, moderately high specific levels of commitment to their occupation, moderately low specific levels of commitment to their career, and close to average specific levels of commitment to the other targets. This *Strongly Globally Committed with an Occupational Orientation* profile was the third largest, corresponding to 16.61 % of the participants. Profile 4 represented participants reporting average global levels of commitment to their work life, moderately high specific levels of commitment to their supervisor, and close to average levels on the other specific dimensions. This *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile was the smallest, corresponding to 4.39 % of the participants. Profile 5 represented participants reporting high global levels of commitment to their work life, high specific levels of commitment to their career, moderately low specific levels of commitment to their supervisor, and close to average levels on the other specific dimensions. This *Strongly Globally Committed with a Career Orientation* profile corresponded to 7.86 % of the participants. Finally, Profile 6 represented participants reporting very high global levels of commitment to their work life, moderately high specific levels of commitment to their supervisor, coworkers, and work in general, moderately low specific levels of commitment to their organization, and close to average specific levels of commitment to their occupation and career. This *Strongly Globally Committed with a Social Orientation* profile corresponded to 9.97 % of the participants. These profiles thus support Hypotheses 2 and 3, although two profiles with a hierarchical orientation were identified, one dominated by the organization and one by the supervisor.

3.2. Latent transition analyses

The transition probabilities from the LTA are reported in Table 3. Supporting Hypothesis 5, membership into the different profiles was highly stable (stability rates ranging from 90.3 % to 100 % across profiles). For members of the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile (Profile 1) at T1, the few transitions involved the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* (0.9 %) and *Strongly Globally Committed with a Social Orientation* (0.5 %) profiles at T2. For members of the *Weakly Globally Committed with a Balanced Orientation* profile (2) at T1, the few transitions involved the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* (1.8 %) and *Strongly Globally Committed with an Occupational Orientation* (1.3 %) profiles at T2. No transitions occurred for those initially corresponding to the *Strongly Globally Committed with an Occupational Orientation* profile (3). For members of the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile at T1 (4), all transitions involved the *Strongly Globally Committed with an Occupational Orientation* profile (3.6 %) at T2. For members of the *Strongly Globally Committed with a Career Orientation* profile (5) at T1, the transitions involved the *Weakly Globally Committed with a Balanced Orientation* (2.9 %), *Strongly Globally Committed with a Social Orientation* (1.4 %), and *Moderately Globally Committed with a Hierarchical-Organizational Orientation* (1.2 %) profiles at T2. Finally, for members of the *Strongly Globally Committed with a Social Orientation* profile (6) at T1, the transitions involved the *Strongly Globally Committed with an Occupational Orientation* (7.8 %) and *Strongly Globally Committed with a Career Orientation* (1.9 %) profiles at T2.

3.3. Predictors of profile membership

In relation to demographic characteristics, the results reported in Table 2 revealed that all information criteria were at their lowest for the null effects model, indicating a lack of associations between the demographic controls and profiles at both time points, a conclusion that was also consistent with the parameter estimates from these models. For these reasons, demographic controls were not retained for the next stages of analyses. However, the results reported in Table 2 are consistent with the generalizability of associations between global levels of authentic leadership and profile membership over time (i.e., supporting the *predictive* similarity of the solution).

The results from this model are reported in Table 4 and revealed that global levels of authentic leadership predicted a higher likelihood of membership into the *Strongly Globally Committed with a Social Orientation* (6) profile relative to the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* (1), *Weakly Globally Committed with a Balanced Orientation* (2), *Strongly Globally*

Table 3
Transition probabilities.

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6
Profile 1	0.986	0.000	0.000	0.009	0.000	0.005
Profile 2	0.018	0.969	0.013	0.000	0.000	0.000
Profile 3	0.000	0.000	1.000	0.000	0.000	0.000
Profile 4	0.000	0.000	0.036	0.964	0.000	0.000
Profile 5	0.012	0.029	0.000	0.000	0.945	0.014
Profile 6	0.000	0.000	0.078	0.000	0.019	0.903

Note. Profile 1: Moderately Globally Committed with a Hierarchical-Organizational Orientation; Profile 2: Weakly Globally Committed with a Balanced Orientation; Profile 3: Strongly Globally Committed with an Occupational Orientation; Profile 4: Moderately Globally Committed with a Hierarchical-Supervisor Orientation; Profile 5: Strongly Globally Committed with a Career Orientation; and Profile 6: Strongly Globally Committed with a Social Orientation.

Table 4
Results from the predictive analyses.

Predictor	Profile 1 vs 6		Profile 2 vs 6		Profile 3 vs 6		Profile 4 vs 6		Profile 5 vs 6	
	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
Global authentic leadership Predictor	-1.453 (0.414)**	0.234	-2.297 (0.443)**	0.101	-1.052 (0.446)*	0.349	-0.911 (0.494)	0.402	-1.742 (0.476)**	0.175
	Profile 1 vs 5		Profile 2 vs 5		Profile 3 vs 5		Profile 4 vs 5		Profile 1 vs 4	
Global authentic leadership Predictor	0.289 (0.222)	1.335	-0.555 (0.220)*	0.574	0.690 (0.268)*	1.993	0.831 (0.364)*	2.296	-0.543 (0.315)	0.581
	Profile 2 vs 4		Profile 3 vs 4		Profile 1 vs 3		Profile 2 vs 3		Profile 1 vs 2	
Global authentic leadership Predictor	-1.386 (0.327)**	0.250	-0.141 (0.347)	0.868	-0.401 (0.203)*	0.670	-1.245 (0.211)**	0.288	0.844 (0.144)**	2.325

Note. SE: Standard error of the coefficient; OR: Odds ratio; G: the coefficients and OR reflect the effects of the predictor on the likelihood of membership into the first listed profile relative to the second listed profile; global levels of authentic leadership are estimated from factor scores with a standard deviation of 1 and a mean of 0; Profile 1: *Moderately Globally Committed with a Hierarchical-Organizational Orientation*; Profile 2: *Weakly Globally Committed with a Balanced Orientation*; Profile 3: *Strongly Globally Committed with an Occupational Orientation*; Profile 4: *Moderately Globally Committed with a Hierarchical-Supervisor Orientation*; Profile 5: *Strongly Globally Committed with a Career Orientation*; and Profile 6: *Strongly Globally Committed with a Social Orientation*.

* $p < .05$.

** $p < .01$

Table 5

Associations between profile membership and the outcomes taken from the model of explanatory similarity (equal across time points).

	Profile 1 M [CI]	Profile 2 M [CI]	Profile 3 M [CI]	Profile 4 M [CI]	Profile 5 M [CI]	Profile 6 M [CI]	Summary of Statistically Significant Differences
Perceived health	-0.383 [-0.647, -0.119]	-0.061 [-0.264, 0.143]	0.323 [0.111, 0.535]	0.297 [0.076, 0.518]	-0.039 [-0.533, 0.454]	0.341 [0.176, 0.507]	1 = 2 < 3 = 4 = 6; 1 = 5; 2 = 5; 3 = 4 = 5 = 6.
Work efficiency	-0.910 [-1.183, -0.637]	0.173 [0.003, 0.343]	0.567 [0.402, 0.732]	0.116 [-0.187, 0.418]	0.116 [-0.259, 0.492]	0.250 [0.050, 0.450]	1 < 2 = 4 = 6 < 3; 1 < 2 = 4 = 5 = 6; 3 = 5.
Improvement-oriented behaviors	-0.844 [-1.067, -0.621]	0.084 [-0.120, 0.287]	0.593 [0.391, 0.795]	0.254 [-0.059, 0.567]	0.067 [-0.305, 0.440]	0.266 [0.081, 0.451]	1 < 2 = 5 = 6 < 3; 1 < 2 = 4 = 5 = 6; 3 = 4.
Job satisfaction	2.754 [2.596, 2.911]	2.717 [2.584, 2.851]	3.126 [3.030, 3.222]	3.060 [2.913, 3.208]	3.148 [2.958, 3.337]	3.274 [3.117, 3.431]	1 = 2 < 3 = 4 = 5 = 6.

Note. M: Mean; CI: 95 % confidence interval; indicators of perceived health, work efficiency, and improvement-oriented behaviors are factor scores with a mean of 0 and a standard deviation of 1; Profile 1: Moderately Globally Committed with a Hierarchical-Organizational Orientation; Profile 2: Weakly Globally Committed with a Balanced Orientation; Profile 3: Strongly Globally Committed with an Occupational Orientation; Profile 4: Moderately Globally Committed with a Hierarchical-Supervisor Orientation; Profile 5: Strongly Globally Committed with a Career Orientation; and Profile 6: Strongly Globally Committed with a Social Orientation.

Committed with an Occupational Orientation (3), and Strongly Globally Committed with a Career Orientation (5) profiles. Global levels of authentic leadership also predicted a lower likelihood of membership into the Weakly Globally Committed with a Balanced Orientation (2) profile relative to the Moderately Globally Committed with a Hierarchical-Organizational Orientation (1), Strongly Globally Committed with an Occupational Orientation (3), Moderately Globally Committed with a Hierarchical-Supervisor Orientation (4), and Strongly Globally Committed with a Career Orientation (5) profiles. Finally, global levels of authentic leadership predicted membership into the Strongly Globally Committed with an Occupational Orientation (3) profile relative to the Moderately Globally Committed with a Hierarchical-Organizational Orientation (1) and Strongly Globally Committed with a Career Orientation (5) profiles, and into the Moderately Globally Committed with a Hierarchical-Supervisor Orientation (4) profile relative to the Strongly Globally Committed with a Career Orientation (5) profile. These results are generally consistent with Hypothesis 6, but only partially support Hypothesis 7.

3.4. Outcomes of profile membership

As shown in Table 2, the lowest values on all information criteria were associated with the model of explanatory similarity (i.e., revealing outcome associations that generalized over time), which was retained for interpretation. The mean level (and confidence intervals) of each outcome observed in each profile are reported in Table 5. The results revealed differences across profiles for all outcomes. The lowest levels of perceived health were associated with the Moderately Globally Committed with a Hierarchical-Organizational Orientation (1) and Weakly Globally Committed with a Balanced Orientation (2) profiles and were equally higher in all other profiles (although levels observed in the Strongly Globally Committed with a Career Orientation [5] profile did not differ significantly from those observed in Profiles 1 and 2). The highest levels of work efficiency and improvement-related work behaviors were associated with the Strongly Globally Committed with an Occupational Orientation (3) profile, while the lowest levels were found in the Moderately Globally Committed with a Hierarchical-Organizational Orientation (1) profile. All remaining profiles equally fell in between these two extremes. Finally, the Strongly Globally Committed with an Occupational Orientation (3), Moderately Globally Committed with a Hierarchical-Supervisor Orientation (4), Strongly Globally Committed with a Career Orientation (5), and Strongly Globally Committed with a Social Orientation (6) profiles equally displayed higher levels of job satisfaction than the Moderately Globally Committed with a Hierarchical-Organizational Orientation (1) and Weakly Globally Committed with a Balanced Orientation (2) profiles, which did not differ from one another. These results are consistent with Hypotheses 8 and 9, but only partially consistent with Hypothesis 10.

4. Discussion

To document the nature of the multiple commitment systems experienced by distinct profiles of employees (e.g., Klein et al., 2022; Meyer & Morin, 2016) and provide a significant contribution to the existing literature: (1) based on a comprehensive review of previous person-centered research on employees' profiles of affective commitment to multiple work-related targets, we proposed a comprehensive typology of possible commitment scenarios to help guide future research in this area; (2) to validate this typology, we relied on a comprehensive hierarchical conceptualization of workplace commitment (Perreira et al., 2018) differentiating between employees' global work life commitment (capturing the positive manifold underlying multiple commitments identified by Cooper-Hakim & Viswesvaran, 2005) from their target-specific commitment to their organization, supervisor, coworkers, occupation, work, and career; (3) we considered how perceived exposure to authentic leadership would differentially predict profile membership, as well as associations between profile membership and indicators of functioning (i.e., perceived health, work efficiency, improvement-oriented behaviors, and job satisfaction); and (iii) we relied on a longitudinal approach to consider stability and change in these profiles, as well as their associations with their predictors and outcomes, over a time interval of four months.

Although four previous studies have already identified profiles of affective commitment to more than two targets while controlling for their positive manifold (Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Tóth-Király et al., 2023), only one has done so longitudinally. Unfortunately, this previous study was limited by: (i) a focus on stability over a very short (one-month) time interval; (ii) data collected during the COVID-19 pandemic; (iii) the inclusion of a non-work target (family) that was found to play a critical role in profile definition, making it impossible to capture profiles specific to workplace commitment; and (iv) their reliance on measures of commitment without explicit mindsets (Klein et al., 2014). The present study builds upon this previous effort by considering a longer (four months) time interval (corresponding to the full length of the follow up of Tóth-Király et al., 2023), using data collected outside the COVID-19 pandemic, and specifically focusing on commitment to work-related targets assessed using a validated measure of affective commitment matching the theoretical hierarchical representation of commitment (Perreira et al., 2018). Importantly, this study is the first to formally propose a series of theoretically derived scenarios designed to guide research seeking to identify multiple commitment profiles.

4.1. Multi-target affective commitment configurations

From the theoretical perspective of the hierarchical representation of workplace affective commitment (Perreira et al., 2018), many have previously highlighted the need to properly account for employees' global levels of commitment to their work life to obtain an accurate picture of the unique role played by their commitment directed at more specific targets (Houle, Shafei, et al., 2024; Meyer et al., 2021; Tóth-Király et al., 2023). Our results support this assertion, showing that profiles can differ from one another in a meaningful way in terms of both global and target-specific commitments, thus providing evidence of congruence and incongruence that differed across profiles (Meyer et al., 2021). Importantly, specific levels of commitment to the six work-related targets considered in this study showed deviations from global levels of commitment to the work life in at least one of the profiles, suggesting that all these

dimensions have value as conceptually distinct facets of workplace affective commitment (Morin et al., 2009, 2011; Perreira et al., 2018).

Showing a strong alignment with the theoretical scenarios elaborated in the introduction, our results revealed that six affective commitment profiles summarized the various configurations of workplace commitment observed in the present sample of employees working in firefighting stations. More precisely, three profiles displayed a strong global level of commitment to their work life, two displayed a moderate level of global commitment to their work life, and one displayed a weak global level of commitment to their work life, respectively corresponding to our *Strongly Globally Committed*, *Moderately Globally Committed*, and *Weakly Globally Committed* scenarios. Beyond these global levels, we also identified, as expected, one profile displaying a balanced orientation (i.e., *Weakly Globally Committed with a Balanced Orientation*), one profile with a social orientation (i.e., *Strongly Globally Committed with a Social Orientation*), one profile with an occupational orientation (i.e., *Strongly Globally Committed with an Occupational Orientation*), two profiles with a hierarchical orientation (i.e., *Moderately Globally Committed with a Hierarchical-Organizational Orientation* and *Moderately Globally Committed with a Hierarchical-Supervisor Orientation*), and one profile with a career orientation (*Strongly Globally Committed with a Career Orientation*).

These profiles provide validity evidence supporting the value of our hypothetical scenarios as providing a useful theoretical framework to guide upcoming research into the nature of the most commonly occurring workplace commitment systems (e.g., Klein et al., 2022). Importantly, the generalizability of these scenarios to more diversified samples of workers is also supported by their correspondence with profiles identified in previous research, even though these previous studies were not formally guided by this new heuristic person-centered conceptualization of commitment (e.g., Houle, Shafei, et al., 2024; Meyer et al., 2021; Morin et al., 2011; Tóth-Király et al., 2023). This generalization of results is even more important that it involves multiple profile indicators, occupations, and work contexts. By providing evidence of generalizability across indicators, occupations, samples and time points, our results thus contribute to the commitment research literature by supporting the desirability of generic interventions potentially useful for many types of employees without having to worry that the nature of the profiles will vary across occupations.

Our findings also build on previous evidence of within-person and within-sample stability reported by Tóth-Király et al. (2023) over short time intervals of one month during the COVID-19 pandemic by demonstrating similarly high levels of stability over a longer time interval of four months. More precisely, the number, nature, variability, and size of these profiles were perfectly replicated over time, while profile membership was highly stable across time points (ranging from 90.3 % to 100 % across profiles). Although this high stability may be related to the nature of the work context considered in this research (i.e., a very stable public-service employment) and the high tenure of our participants, these results support the value of profile-based interventions, showing that person-centered results do not refer to ephemeral phenomena but that profile membership is unlikely to change on its own in the absence of intervention. More generally, this strong evidence of generalizability across samples and over time indicates that our scenarios seem to capture some core mechanisms involved in employees' workplace commitment systems (e.g., Klein et al., 2022).

It is interesting to note that the only profile displaying a balanced orientation was the one displaying a weak global level of commitment to the work life, as we also expected (based on previous research evidence: Meyer et al., 2021; Morin et al., 2011) to identify a similarly balanced profile displaying a high level of global commitment. This result suggests that a globally low level of commitment to the work life may tend to generalize across targets, a conclusion that has also been supported in previous studies (Morin et al., 2011; Tóth-Király et al., 2023). Although differences in results across studies may be related to the fact that Meyer et al. (2021) only considered a reduced set of four social targets of commitment relative to the current study which considered a broader range of more diversified targets, as well as to the limitations of the approach used by Morin et al. (2011) to disaggregate global from specific levels of commitment (Morin et al., 2016a, 2017; Perreira et al., 2018), they may also simply reflect normative sample variability (Meyer & Morin, 2016), thus reinforcing the importance of replication in person-centered research.

Variations across specific targets were slightly more pronounced among employees displaying a moderate global level of commitment to the work life, allowing us to differentiate between one *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile (displaying slightly above average specific levels of commitment to the organization) from a *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile (displaying moderately high specific levels of commitment to their supervisor). These two profiles first support our expectations, anchored in previous research findings, that employees with a primarily hierarchical orientation would sometimes display a profile dominated by a stronger commitment to the supervisor and sometimes one dominated by a stronger commitment to the organization (Becker & Billings, 1993; Meyer et al., 2021; Swailes, 2004; Tóth-Király et al., 2023), further confirming the distinct nature of these two targets of commitment in the mind of employees. Importantly, our results also confirm previous evidence suggesting that such a hierarchical orientation is not sufficient to support a globally high level of commitment to the work life (Meyer et al., 2021; Tóth-Király et al., 2023).

Contrasting with one previous study focusing on four social targets of commitment (Meyer et al., 2021) while supporting the results from other studies including more diversified targets (Houle, Shafei, et al., 2024; Tóth-Király et al., 2023), our results revealed that profiles characterized by high global levels of commitment to the work life tended to display a high level of variation across specific targets. Thus, some of those profiles of employees displayed moderately high specific levels of commitment to their occupation and moderately low specific levels of commitment to their career (*Strongly Globally Committed with an Occupational Orientation*), while others displayed high specific levels of commitment to their career and moderately low specific levels of commitment to their supervisor (*Strongly Globally Committed with a Career Orientation*). Finally, a third profile of employees displayed moderately high specific levels of commitment to their supervisor, coworkers, and work in general, and moderately low specific levels of commitment to their organization (*Strongly Globally Committed with a Social Orientation*). These results suggest some employees may place a premium on career development and advancement (Houle, Shafei, et al., 2024; Morin et al., 2011), while this is clearly not a key driver of commitment for others who rather seem to favor their occupation or social interactions at work (Houle, Shafei, et al., 2024; Meyer

et al., 2021; Morin et al., 2011; Tóth-Király et al., 2023). Interestingly, in this study, high specific levels of commitment to the career, coworkers, or the occupation only emerged at high global levels of commitment to the work life, suggesting that these targets may only become priorities for employees who are already strongly committed to their work life in general. In contrast, such a strong global commitment does not seem to be required for employees to become primarily driven by more hierarchical bonds. In any case, future research is needed to ascertain the generalizability of our results to more diversified occupational groups (e.g., service, sale, technicians), cultures (e.g., South America, Eastern Europe, Asia), or research designs.

4.2. Authentic leadership as a predictor of affective commitment profiles

Employees reporting exposure to higher global levels of authentic leadership were less likely to display a profile characterized by lower global levels of commitment to their work life (*Weakly Globally Committed with a Balanced Orientation*) and more likely to display a profile characterized by higher global levels of commitment to their work life (*Strongly Globally Committed with a Social Orientation*). These observations support previous evidence showcasing the adaptive role of employees' perceptions of exposure to authentic leadership (Kalay et al., 2020; Saleem et al., 2023), in addition to helping support the value of considering authentic leadership as a phenomena worthy of scientific attention (Gardner & McCauley, 2022b).

However, it was interesting to note that these perceptions were not differentially associated with membership into the *Strongly Globally Committed with a Social Orientation* profile relative to the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile, despite the fact that these two profiles displayed different global levels of commitment to their work life. These results are particularly interesting given the fact that these two profiles displayed similarly high specific levels of commitment to the supervisor. In fact, perceived global levels of authentic leadership were also associated with a higher likelihood of membership in the latter of those profiles relative to a subset of other profiles. These results thus suggest that, beyond their associations with employees' global levels of commitment to their work life, their perceived exposure to an authentic leader also seems to contribute to their specific levels of commitment to their supervisor (e.g., Imam et al., 2020; Morin et al., 2011). Consistent with this latter interpretation, employees' perceptions of exposure to higher global levels of authentic leadership were also associated with a lower likelihood of membership into the *Strongly Globally Committed with a Career Orientation* profile (the profile displaying the lowest specific levels of commitment to supervisor) relative to the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profiles, but not relative to the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile. However, the lack of differential associations between authentic leadership perceptions and their likelihood of membership into the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile relative to the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile suggests that these benefits in terms of specific levels of affective commitment to the supervisor do not generalize to employees displaying a hierarchical orientation. This lack of differential associations might be related to the documented benefits of authentic leadership for organizational commitment (Abbas et al., 2022; Hwang et al., 2022), as authentic leaders tend to make conscious efforts to build employees' trust in the organization (Walumbwa et al., 2008). Beyond these efforts, leaders also tend to be seen as a core representative of their organization by employees (Vandenberghe et al., 2017).

Finally, employees' perceptions of exposure to higher global levels of authentic leadership were also associated with a higher likelihood of membership into the *Strongly Globally Committed with an Occupational Orientation* profile relative to the *Strongly Globally Committed with a Career Orientation*, *Moderately Globally Committed with a Hierarchical-Organizational Orientation*, and *Weakly Globally Committed with a Balanced Orientation* profiles. These results thus suggest additional possible benefits of authentic leadership in relation to employees' specific levels of commitment to their occupation, which is consistent with current empirical and theoretical knowledge related to the development of occupational commitment (Meyer, 2016).

4.3. Outcome implications of affective commitment profiles

All profiles displayed well-differentiated associations with the outcomes. Yet, the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile unexpectedly displayed the most problematic outcomes (i.e., the lowest levels of perceived health, work efficiency, improvement-related work behaviors, and job satisfaction), although levels of perceived health and job satisfaction were similarly low in the *Weakly Globally Committed with a Balanced Orientation* profile. This last observation confirms that weakly committed employees lack the energetic, cognitive, and emotional resources required to function efficiently at work, thus leading them to experience detrimental outcomes (e.g., Askew et al., 2013; Johnson et al., 2009; Klein et al., 2022; Meyer et al., 2021). However, these results also suggest that having a profile that appears primarily driven by a slightly above average level of commitment to a relatively distal or intangible target, such as the organization, is particularly harmful for employees. Supporting this conclusion, the *Moderately Globally Committed with a Hierarchical-Supervisor Orientation* profile was associated with higher levels of perceived health, work efficiency, improvement-related work behaviors, and job satisfaction than the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile, although these two profiles differ from one another primarily in terms of their specific levels of commitment to the organization versus the supervisor. This may also reveal the fact that within the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile, the salience of the bond to the organization creates a tension between targets that are more proximal (i.e., supervisor and coworkers) or meaningful (i.e., occupation, work, and career), even if the level of commitment to these targets is moderate. In other words, within that profile, the energy devoted to commit to the organization may occur at the expense of the benefits of these alternative foci, thereby inducing internal tension that detracts from performance and well-being outcomes.

When we consider the two profiles associated with the worst outcomes, our results thus suggest that employees without a primary

affective tie to their work life (i.e., *Weakly Globally Committed with a Balanced Orientation*) or whose primary affective tie to their work life (i.e., *Moderately Globally Committed with a Hierarchical-Organizational Orientation*) involves neither a proximal social target (such as coworkers or the supervisor) nor a primarily personal achievement-related target (such as the career or the occupation), are more likely to see their individual functioning undermined. Although they remain speculative, these observations are consistent with a core assumption of SDT (Ryan & Deci, 2017), suggesting that the satisfaction of employees' basic needs for relatedness (thus involving social ties such as coworkers or the supervisor), competence (which is intimately related to one's ability to adequately perform one's occupational role), or autonomy (a possible gain associated with career advancement) are crucial for optimal functioning. The organization, when considered on its own beyond its key role as a core component of employees' global work life, does not seem to contribute as closely as the other specific targets of commitment to the satisfaction of these needs. The relevance of this component of SDT (Ryan & Deci, 2017) as a potential mechanism to explain the effects of affective commitment on its outcomes has already been documented in previous studies (e.g., Houle et al., 2022; Houle, Morin, & Fernet, 2024; Tóth-Király et al., 2023), lending credence to this explanation.

More consistent with our expectations, we also found that profiles displaying a strong global level of commitment to the work life, and particularly the *Strongly Globally Committed with an Occupational Orientation* profile, were associated with the most positive outcomes (i.e., perceived health, work efficiency, improvement-related work behaviors, and job satisfaction). In fact, the most positive outcome levels were associated with the *Strongly Globally Committed with an Occupational Orientation* profile, which is notably characterized by high specific levels of commitment to the occupation and moderately low specific levels of commitment to the career. This observation does support our previous interpretation concerning the key role played by the occupation in relation to the satisfaction of employees' need for competence, a need known to be particularly relevant to consider among working employees (Gillet et al., 2020; Huyghebaert-Zouaghi, Gillet, et al., 2023). This finding is also reminiscent of the close connection between the occupation and the sense of calling, which is known to have downstream effects on a variety of positive outcomes (Kim et al., 2018). Conversely, findings also suggest that a strong commitment to the work life that is primarily driven by purely social ties (*Strongly Globally Committed with a Social Orientation*) or the desire for self-advancement (*Strongly Globally Committed with a Career Orientation*) will not generate as much benefits in terms of functioning as one that is primarily driven by what one truly does at work on a daily basis (*Strongly Globally Committed with an Occupational Orientation*). Interestingly, similar results were reported by Morin et al. (2011) who found that their career-committed and workplace-commitment profiles tended to underperform on various indicators of functioning. These observations reinforce the importance of feeling a sense of affective connection with what one does, relative to with whom, at least as long as employees feel a strong bond with their global work life. Clearly, future studies are needed to validate these explanations, and to unpack the psychological mechanisms underpinning the links between commitment profiles and employees' work functioning.

4.4. Limitations and future directions

Some limitations should be considered when interpreting our results. First, we relied on self-reported data, which can increase the risk of self-report and social desirability biases. Future studies would do well to incorporate objective measures (e.g., organizational data on work performance, absenteeism, and turnover) and multi-source data (e.g., supervisors, colleagues, spouse ratings). Second, we measured the stability of our affective commitment profiles over a period of four months during which no specific transition, intervention, or systematic change occurred for most participants. Stability would likely be smaller – making it easier to detect transitions and their predictors – if longer time intervals (e.g., one year), or intervals encompassing interventions, changes, or transitions, were considered. In addition, there might be interindividual differences in the speed at which changes in affective commitment occur (Meyer et al., 2021). Third, we only considered the predictive role of authentic leadership in relation to profile membership. Future research should also examine how individual differences (e.g., workaholism, psychological capital, motivational orientations) as well as challenge (e.g., role complexity and responsibility) and hindrance (e.g., ambiguity, overload, role conflict) demands relate to affective commitment profiles. Likewise, additional negative (e.g., turnover, absenteeism, depression) and positive (e.g., creativity, performance) outcomes could be considered to better document the implications of affective commitment profiles. Perhaps more importantly, we relied on McClelland's (1987; also see Morin et al., 2011) theory and SDT (Ryan & Deci, 2017) to formulate generalized expectations regarding the likely configuration of commitment profiles by proposing a connection between specific targets of affective commitment and the basic psychological needs most likely to support the emergence of a strong affective commitment to that target. Although these propositions were used in a purely descriptive manner in this study (which was never designed to validate them), they seem consistent with our results. However, these propositions remain tentative, and would need to be formally validated. Finally, it might be interesting, for future studies, to consider the possible role of those commitment profiles as moderator of various predictor-outcome associations (e.g., to see if specific commitment profiles can help potentiate, or buffer, the effects of specific leadership styles) or even to assess whether commitment targets interact with one another within some profiles in outcome prediction.

4.5. Implications for practice

Our results suggest that organizations and managers may want to pay attention to authentic leadership behaviors and take action to facilitate their implementation in the workplace, as these behaviors support the emergence of profiles characterized by higher global levels of commitment to the work life, as well as of profiles characterized by higher specific levels of commitment to the supervisor and to the occupation. For instance, Nübold et al. (2020) demonstrated the effectiveness of a low-dose mindfulness intervention over a period of 30 days at increasing followers' and leaders' ratings of authentic leadership. These benefits also translated to perceptions of

interpersonal justice. Organizations could also promote authentic leadership through cultural change and by hiring leaders who demonstrate behaviors consistent with the moral and ethical dimensions of this type of leadership (Hoch et al., 2018). Even when under pressure, leaders need to ensure that their emotions, feelings, and ideas are in line with moral standards and values. They further need to be prepared to receive critical feedback on their own behaviors and to consider all relevant information before making decisions (Duarte et al., 2021). Despite our focus on authentic leadership as a predictor of workplace affective commitment, it remains important to keep in mind that other leadership behaviors (e.g., leader-member exchange; Dulebohn et al., 2012) or job demands and resources (e.g., role ambiguity, organizational support; Meyer et al., 2002) could represent other likely theoretical drivers of workplace affective commitment, and deserve a focal role in intervention in their own right.

From a targeted intervention perspective, our results suggest that it might be valuable to target employees with an unbalanced commitment configuration to help them develop their weaker commitments to reach the level of their other commitments, thereby nurturing a stronger global sense of commitment to their work life. However, targeted interventions are often less practical than generic interventions. In this regard, from an organization-wide intervention perspective, our results suggest that organizations and managers should focus on developing employees' workplace affective commitment toward as many work-related targets as possible, even if this may compromise the development of higher levels of commitment to a subset of preferred targets (e.g., supervisor; Houle, Shafei, et al., 2024). It is a way of increasing employees' global levels of commitment to their work life, which in turn are associated with the most positive outcomes (Meyer et al., 2021; Perreira et al., 2018; Tóth-Király et al., 2023). In other words, interventions should seek to improve employees' affective commitment to all work-related targets, rather than focusing on any specific target, as this will help maximize their global levels of commitment to their overarching work life. Indeed, interventions with a sole focus on one, or two, commitment targets are likely to generate imbalance in employees' global commitment systems, and potentially even conflicts among specific commitments (e.g., supervisor versus colleagues versus occupation), which are more likely to be harmful for employees' functioning. This is illustrated in the case of the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile, which shows the highest specific levels of commitment to the organization but the lowest levels of commitment to occupation and work (with an average global level of commitment to the work life). This imbalance creates disturbances and conflicts that are likely to explain the adverse consequences associated with this profile.

Seeking to increase commitment to a specific target rather than to achieve high global levels of commitment to the work life may thus carry significant costs for employees and organizations. Indeed, as organizations face more turbulent times than ever, they may gain flexibility by fostering commitment to a wide range of targets (i.e., the work life) among their employees as this would help them to be more adaptable to change. Moreover, our results showed that the benefits of a stronger commitment to a specific target only emerged when employees already displayed a high global level of commitment to their work life. This is illustrated by the slightly above-average specific levels of commitment to work in the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* and *Strongly Globally Committed with a Career Orientation* profiles that are associated with much better outcomes in the *Strongly Globally Committed with a Career Orientation* profile compared to the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile because the *Strongly Globally Committed with a Career Orientation* profile is characterized by significantly higher global levels of commitment to work life than the *Moderately Globally Committed with a Hierarchical-Organizational Orientation* profile.

Consequently, managers and organizations should be very careful about taking actions seeking to increase specific commitments rather than employees' overarching bond to their complete work life. It thus seems preferable to propose interventions aimed at fostering the development of the most favorable commitment profiles (characterized by a stronger global commitment to the work life) rather than focusing on piecemeal strategies directed at specific targets while ignoring the others. In particular, although the bulk of research on commitment still focuses on the organization as an arguably central target of commitment (e.g., Meyer, 2016; Meyer et al., 2021; Meyer & Morin, 2016), a sole focus on improving organizational commitment appeared insufficient to generate benefits, and even appeared harmful to employees who also need to experience an affective bond to the people in their workplace and/or to their day-to-day occupation to experience benefits. As a result, practitioners should focus on global commitment systems rather than trying to change their components (Klein et al., 2022) and may want to do so while considering how they can foster employees' basic psychological needs for competence, autonomy, and relatedness. Fortunately, validated interventions to foster need satisfaction already exist (Gagné et al., 2022; Slemp et al., 2021). Likewise, interventions aimed at increasing positive emotions, more generally, could also prove useful (e.g., positive psychology interventions, mindfulness; Tóth-Király et al., 2023).

CRediT authorship contribution statement

Alexandre J.S. Morin: Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Christian Vandenberghe:** Writing – review & editing, Writing – original draft, Validation, Conceptualization. **Joon Lee:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Nicolas Gillet:** Writing – review & editing, Writing – original draft, Validation, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jvb.2024.104080>.

Data availability

The data that has been used is confidential.

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