

Dual Commitment to Organization and Supervisor:

A Person-centered Approach

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Abstract

A recent trend in commitment research has been to use person-centered analytic strategies to identify homogeneous subgroups with varying configurations of commitment mindsets (affective, normative, continuance) or targets (e.g., organization, supervisor, team). A person-centered approach takes a more holistic perspective than the traditional variable-centered approach and can reflect potentially complex interactions among commitment mindsets and/or targets. We extend application of the person-centered approach to investigate profiles of commitment to two interrelated targets, the organization and supervisor, in two studies (Ns = 481 and 264) involving Belgian university graduates. Using latent profile analyses, we found that a similar 5-profile model fit best in both studies. The mindset pattern for the two targets was similar for some profile groups, but differed for others. The groups differed on perceived organizational and supervisory support and voluntary turnover largely as expected from commitment and support theory. Implications for future research and management practice are discussed.

Keywords. Commitment, Organization, Supervisor, Mindset, POS, PSS, Support, Turnover, Person-Centered, Latent Profiles.

There has been a recent trend toward the use of a person-centered research strategy in workplace commitment research. The person-centered approach is based on the assumption that commitment mindsets (e.g., affective, normative and continuance commitment: Allen & Meyer, 1990; Meyer & Allen, 1991) and/or commitments to different constituencies (e.g., organization, occupation, supervisor, team: Becker, 1992; Meyer & Herscovitch, 2001; Reichers, 1985) can combine and be experienced in different ways. The objective therefore is to identify subgroups within a sample that share a common configuration, or profile, with regard to these mindsets and/or constituencies (targets). Once identified, the groups can be compared on other variables, including those presumed to be antecedents or consequences of commitment. Thus, the person-centered approach views individuals in a more holistic fashion, and affords the opportunity to address complex interactions among the commitment mindsets and/or targets that would be difficult to detect using more traditional variable-centered analytic strategies (Meyer, Stanley, & Vandenberg, 2013; Morin, Morizot, Boudrias, & Madore, 2011; Vandenberg & Stanley, 2009).

To date, the person-centred approach has been used most often to identify mindset profiles of organizational commitment (e.g., Gellatly, Meyer, & Luchak, 2006; Kam, Morin, Meyer, & Topolnytsky, in press; Meyer, Kam, Goldenberg, & Bremner, 2013; Meyer, Stanley, & Parfyonova, 2012; Sinclair, Tucker, Wright, & Cullen, 2005; Somers, 2009, 2010; Stanley, Vandenberghe, Vandenberg, & Bentein, 2013; Wasti, 2005). A few studies have been conducted to identify profiles of commitments to two or more targets (e.g., Becker & Billings, 1993; Carson, Carson, Roe, Birkenmeier, & Phillips, 1999; Morin, Morizot et al., 2011), but studies involving multiple mindsets pertaining to more than one target are rare (e.g., Tsoumbris & Xenikou, 2010; Morin, Meyer, McInerney, Marsh, & Ganotice, in press). Given that both the target and mindsets characterizing commitment have implications for behavior (Becker, Billings, Eveleth, & Gilbert, 1996), more research involving multiple targets and mindsets is needed.

To extend research in this area, we conducted two studies to investigate profiles reflecting the three commitment mindsets for two targets – the organization and supervisor. We selected these targets because both have been found to predict employee turnover (e.g., Vandenberghe & Bentein, 2009; Vandenberghe,

Bentein, & Stinglhamber, 2004), the focal outcome variable in our study. Moreover, the two targets are naturally interconnected (i.e., supervisors enact organizational policy and promote organizational goals: Levinson, 2005), but supervisors can also serve as independent targets in identity formation and commitment through their unique relationships with subordinates (Johnson, Chang & Yang, 2010). This raises the possibility that employees will differ in the extent to which they develop commitments to one or both targets, as well as in the mindsets characterizing those commitments – a situation well-suited to a person-centered investigation. In what follows, we explain how this approach has been applied in separate investigations of multiple mindsets and multiple targets of commitment. We then use these findings in conjunction with theory to develop our hypotheses regarding the combination of mindsets and targets.

Person-Centered Approach and its Application in Commitment Research

Multiple Mindsets of Commitment. In the original formulation of their three-component model (TCM), Allen and Meyer (1990) proposed that commitment to an organization could be characterized by three distinct mindsets: emotional attachment (affective commitment: AC), sense of obligation (normative commitment: NC), and perceived cost of leaving (continuance commitment: CC). In addition, they argued that employees could experience each of these mindsets to varying degrees. That is, each employee will have a *commitment profile* reflecting the relative strength of his/her AC, NC and CC to the organization. A decade later, Meyer and Herscovitch (2001) offered a set of propositions concerning the development and consequences of eight hypothetical profiles reflecting high or low scores on each of the three mindsets.

An early strategy used to test Meyer and Herscovitch's (2001) propositions involved assigning employees to profile groups based on whether their scores on AC, NC, and CC fell above or below the sample mean/median (e.g., Gellatly et al., 2006; Markovits, Davis, & van Dick, 2007). These studies provided mixed support for Meyer and Herscovitch's propositions but, more importantly, revealed that relations between a particular commitment mindset and other variables varied as a function of the strength of the other two. Most notably, Gellatly et al. found that NC was associated with lower levels of turnover intentions and higher levels of discretionary efforts when combined with strong AC than with strong CC

and weak AC. They proposed that NC might be experienced as a *moral imperative* (i.e., desire to do the right thing) when combined with strong AC, but as an *indebted obligation* (i.e., the need to meet social obligations) when combined with strong CC and weak AC. Thus, AC, NC and CC can combine to form profiles reflecting more complex mindset patterns.

The midpoint split approach has limitations, including the fact that the groups it identifies may not correspond to those existing naturally (Meyer, Stanley et al., 2013; Morin, Morizot et al., 2011). Consequently other researchers have used cluster analyses (e.g., Sinclair et al., 2005; Somers, 2009, 2010; Wasti, 2005) or latent profile analyses (LPA: e.g., Kam et al., in press; Meyer, Kam et al., 2013; Meyer et al., 2012; Stanley et al., 2013) to identify naturally occurring subgroups. Although there is variability across studies, some profiles emerge consistently, including *uncommitted* or *weakly committed* (low scores on all three mindsets), *CC-dominant*, *AC/NC-dominant*, and *fully committed* (i.e., high scores on all three mindsets). Other common profiles are *AC-dominant*, *CC/NC-dominant*, and *AC/CC-dominant*. In some cases, the profiles are highly differentiated (i.e., a mix of strong and weak mindsets), but in others the strength of the individual mindsets, and the differences among them, are less extreme.

The consistent emergence of multiple profiles suggests that the working population is indeed heterogeneous with regard to mindsets configurations. Moreover, the relative consistency in the nature of the profiles across studies attests to their meaningfulness and justifies efforts to investigate their development and consequences. Recent studies have also provided evidence for profile consistency across subsamples from the same population (Meyer, Kam, et al., 2013) as well as stability of profile structure within a sample over time, even under conditions of large-scale organizational change (Kam et al., in press). Some profiles (*fully committed*; *AC/NC-dominant*; *AC-dominant*) tend to be associated with more positive organizational (retention, performance, citizenship behaviors) and personal (need satisfaction; well-being) outcomes than others (*uncommitted*; *CC-dominant*) (Meyer et al., 2012; Somers, 2009, 2010; Wasti, 2005). Not surprisingly, employees with optimal profiles from an outcomes perspective also report having better work conditions than those with less desirable profiles (Gellatly, Hunter, Currie, & Irving, 2009; Kam et al., in press; Meyer, Kam et al., 2013).

There has been some inconsistency in previous research in the way CC has been operationalized. Some studies (e.g., Kam et al., in press; Meyer, Kam et al., 2013; Meyer et al., 2012) measured CC as a unidimensional construct as it was initially conceptualized (Allen & Meyer, 1990; Meyer, Allen, & Smith, 1993). Others, based on the findings of McGee and Ford (1987), treated it as bi-dimensional (Stanley et al., 2013), with one dimension reflecting perceived lack of alternatives (CC:LA) and the other reflecting the sacrifices (costs) associated with leaving (CC:HS). Stanley et al. (2013) found that CC:LA and CC:HS interacted somewhat differently with AC and NC in the formation of profiles. In the present study, we measured both CC:HS and CC:LA as they pertain to the organization. Because there was no empirical basis for making the same distinction for CC to the supervisor, we treated it as a single dimension.

Multiple Targets of Commitment. To date, there is no unified theory pertaining to combinations of commitments to different targets. Some scholars have proposed that commitment to the organization can conflict with commitment to a profession (Gouldner, 1957) or union (Gordon & Ladd, 1990), whereas others suggested that similarity is also possible (e.g., Lee, Carswell & Allen, 2000; Meyer & Allen, 1997; Wallace, 1993). In their meta-analytic review, Cooper-Hakim and Viswevaran (2005) found that affective commitments to most work targets correlate positively, albeit modestly, leaving open the possibility that some subgroups may have mutually strong or weak commitment to different constituencies, whereas other have strong commitment to some targets and weak commitment to others. This is a situation that is well suited to a person-centered investigation. As was the case for commitment mindsets, researchers have used midpoint splits (Carson et al., 1999; Somers & Birnbaum, 2000), cluster analyses (Becker & Billings, 1993; Swailes, 2004), and LPA (Morin, Morizot et al., 2011) to identify profile groups involving two or more targets of commitment. Although various combinations of commitment targets have been examined, we focus here on studies including commitment to the organization and supervisor.

Becker and Billings (1993) measured commitment to four targets (organization, top management, supervisor, and work group) and identified four distinct profile groups using cluster analysis. The *uncommitted* group demonstrated little commitment of any kind, whereas the *committed* group had strong

commitment to all four targets. The *locally* committed group was more committed to their supervisor and work group than to the organization and top management, whereas the *globally* committed group showed the opposite pattern. The committed group scored highest, and the uncommitted group scored lowest, on overall satisfaction, prosocial behavior, and intention to stay. The locally committed group tended to be more satisfied with their supervisor and coworkers, and engaged in more prosocial behavior directed at these targets, than did the globally committed group. These findings suggest that commitments to multiple targets can be similar or in conflict, and that the nature of the configuration has implications for attitudes and behavior.

In a more comprehensive study, Morin, Morizot et al. (2011) applied LPA and factor mixture analyses (Muthén, 2002) to ratings of AC to seven targets (organization, workgroup, supervisor, customer, job, work, and career) and found that a five-profile model fit the data best. The profile groups included employees who were (a) highly committed to all targets, (b) weakly committed to all targets, (c) highly committed to the supervisor and moderately committed to other targets, (d) committed to career advancement but weakly committed to all other targets, and (e) committed to the proximal work environment (i.e., organization, workgroup, customers) but uncommitted to their supervisor. These findings provide further evidence for heterogeneity within the workforce with regard to targets of commitment, and again suggest that commitments to multiple targets are similar for some employees but a source of potential conflict for others. Importantly, the profiles also differed in meaningful ways with regard to behaviors (e.g., those with a strong commitment to the supervisor reported more citizenship behaviors directed at the supervisor; those with a dominant commitment to their career had stronger intentions to leave).

Multiple Mindsets and Dual Commitment to the Organization and Supervisor

Based on the findings pertaining to mindset and target profiles described above, there is good reason to expect workforces to be heterogeneous with regard to combinations of mindsets and targets. As noted previously, we are aware of only two person-centred studies involving all three mindsets pertaining to two targets. Tsoumbris and Xenikou (2010) measured AC, NC and CC to the organization and occupation in a

small sample of Greek employees and, using cluster analysis, identified four profiles: non-committed, CC-dominant, AC/NC-dominant, and highly committed. Interestingly, these profiles varied primarily with regard to mindset, showing a similar mindset pattern within profiles for the two targets. Morin et al., (in press) also measured AC, NC, and CC to the organization and occupation in a sample of Hong Kong teachers and found seven profiles. In contrast to Tsoumbri and Xenikou, they found evidence of both similarity and differences in mindset pattern across targets. Where there were differences, they were more indicative of the target dependencies discussed by Meyer and Allen (1997) than of conflicting commitments. For example, in one case, teachers were fully committed to the occupation and had an NC-dominant commitment to the organization, perhaps suggesting a sense of obligation to the organization for the opportunity to practice their desired profession. Although they only measured AC, Morin, Morizot et al. (2011) found little differentiation across profiles in the relative strength of AC to the organization and occupation, but did find differences across other targets, including supervisor. Therefore, in light of these inconsistent findings, we turned to theory for further guidance in hypothesis development.

Profile structure. Two theories were of particular relevance to our hypotheses regarding profile structure, one pertaining to motivational mechanisms (Johnson et al., 2010) and the other to dependencies among targets (Lawler, 1992; Meyer & Allen, 1997). Johnson et al. drew on identity theory (Brewer & Gardner, 1986; Lord & Brown, 1996) and regulatory focus theory (Higgins, 1997, 1998) to explain how different mindsets of commitment to various targets might develop. They argued that employees can form individual, relational or collective identities, and that these identities can have implications for the target of commitment. Employees prone to developing relational identities might commit to their supervisor, whereas those inclined to form collective identities might commit to the organization, and those with strong individual identities might be reluctant to commit to either. At the same time, employees' regulatory focus can influence the *nature* of the commitments they develop. Those with a *promotion focus* (concern with gains, ideals and accomplishment) are more likely to develop AC to the relevant target, whereas those with a *prevention focus* (concern with duties, obligations, and security) are more likely to develop NC or CC. Importantly, types of self-identity and regulatory focus are assumed to be orthogonal,

raising the possibility that employees can commit to one, both, or neither target, and can experience different mindsets toward each of these targets. Thus, Johnson and colleagues' propositions are consistent with, and help to explain, the notion that a sample of employees can be heterogeneous with regard to both the nature and target of commitment. They also raise the possibility that commitments can be both similar or in conflict across targets.

Lawler (1992) noted that, of the constituencies to which employees can commit, some are nested within others. Building on this notion, Meyer and Allen (1997) argued that such nesting can create dependencies that have implications for the nature of their commitment. For instance, in the absence of strong AC to the organization, an employee with strong AC to the supervisor might experience strong CC to the organization (i.e., loss of opportunity to work for the supervisor is a potential cost of leaving the organization). Similarly, an individual with strong AC to the organization might have strong CC to the supervisor if the only way to terminate the relationship with the supervisor is to leave the organization (i.e., opportunities to transfer within the organization are limited). This raises the possibility that mindset patterns can differ across the two targets for some employees.

In sum, based on theory and previous research, we expected the samples in our two studies to be heterogeneous with regard to commitment mindsets and target. In particular, we expected the mindset profiles observed most frequently in organizational commitment research to also emerge in our study. We also expected the mindset patterns to be similar across targets for some employees, but different for others. Finally, based on recent evidence for consistency in profile structure across studies (Meyer, Stanley et al., 2013), subsamples (Meyer, Kam et al., 2013), and time (Kam et al., in press), we expected the same profile structure to be replicate across our two studies.

Hypothesis 1a: Employee samples are heterogenous with regard to profile of commitment strength and target.

Hypothesis 1b: Mindset profiles for both targets include weakly committed or uncommitted, CC-dominant, AC/NC-dominant, AC-dominant, and fully committed.

Hypothesis 1c: Mindset configurations are similar across targets for some subgroups and different for

other subgroups.

Hypothesis 2: The samples in both studies have a similar profile structure.

We did not generate specific predictions regarding the more complex dependencies among the targets discussed by Meyer and Allen (1997), nor did we make predictions concerning profile differences with regard to the two subscales of CC to the organization (CC:HS; CC:LA). Nevertheless, our analyses permit detection of profile groups reflecting these dependencies (e.g., AC/NC-dominant to the supervisor; CC-dominant to the organization) as well as differences in the relative strength of CC:HS and CC:LA to the organization, should they exist.

Although the primary objective of this research was to demonstrate heterogeneity regarding profile structure, an important consideration in demonstrating both the validity and utility of this structure is to show that the profiles relate in meaningful ways to other variables. To this end, we also measured turnover as a theoretical outcome, and perceived support – from the organization (POS) and the supervisor (PSS) – as theoretical antecedents.

Outcomes. Turnover has long been the outcome of interest in organizational commitment research (Mowday, Porter & Steers, 1982). In their meta-analysis, Meyer, Stanley, Herscovitch, and Topolnysky (2002) found that AC, NC, and CC all correlated negatively with turnover intention and turnover, with AC having the strongest relation followed by NC and CC. Commitment to the supervisor has also been found to relate negatively to turnover, but there is some disagreement about whether the relation is direct or indirect. For example, Hunt and Morgan (1994) found that the relation between supervisor commitment and turnover intention was mediated by commitment to the organization. However, other investigators found direct links (e.g., Vandenberghe et al., 2004; Vandenberghe & Bentein, 2009). For present purposes, we expected that turnover would be lowest when employees were committed to both the organization and the supervisor, and weakest when they were committed to neither. Moreover, we expected that turnover would be lower when AC (alone or in combination with NC or CC) was strong than when CC dominated the profile.

Hypothesis 3: Turnover rates differ across profile groups and are lower when commitment to either or

both targets are strong than when commitments to both targets are weak.

Hypothesis 4: Turnover is lower when employees have a fully-committed, AC/NC-dominant, or AC-dominant profile to one or both targets than when they have an uncommitted or CC-dominant profile to both targets.

Antecedents. There are many factors likely to contribute to the development of commitment, but meta-analytic studies consistently reveal that POS (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Rhoades, Eisenberger, & Armeli, 2001) is among the strongest predictors, particularly of AC and NC to the organization (Meyer et al., 2002; Rhoades & Eisenberger, 2002). The analog of POS as it pertains to supervisor commitment is PSS, and it too has been demonstrated to relate positively to AC to the supervisor (e.g., Stinglhamber & Vandenberghe, 2003). Although POS and PSS are likely to have their strongest effects on commitment to the source of support, cross-over effects are also possible. For example, PSS can also have a positive effect on commitment to the organization when the supervisor is seen as an “embodiment” of the organization (i.e., as sharing the same values and reflecting organizational policy in interactions with employees: Eisenberger et al., 2002, 2010).

Hypothesis 5: Employees reporting strong POS are more likely to have a fully-committed, AC/NC-dominant, or AC-dominant organizational commitment profile than an uncommitted or CC-dominant profile.

Hypothesis 6: Employees reporting strong PSS are more likely to have fully-committed, AC/NC-dominant, or AC-dominant supervisor commitment profile than an uncommitted or CC-dominant profile.

Hypothesis 7: Cross-over relations with PSS predicting organizational commitment profiles and POS predicting organizational commitment profiles are similar to within-target relations.

Method

Samples and Procedure

Study 1. As part of a larger project on job attitudes and turnover, we surveyed a random sample of alumni from a French-speaking Belgian university. Surveys were sent to participants’ home addresses,

together with pre-paid return envelope and a letter explaining the purpose of the study and ensuring confidentiality. Two weeks later, a reminder was sent to non-respondents. Questionnaires were coded to allow matching of responses to turnover data collected one year later. Respondents had graduated in business, economics, applied sciences, and sciences, among others, and worked in a variety of industries including banking, insurance, manufacturing, information technology, transportation, consulting, education, and many others. Of those contacted, 481 (38%) answered the survey including measures of commitment, POS and PSS, and demographics. In this final sample, 30.10% were female, average age was 30.46 years ($SD = 3.88$; 24 to 53 years), average organizational tenure was 3.62 years ($SD = 3.62$; 0 to 20 years), and average tenure with the supervisor was 2.09 years ($SD = 1.97$; 0 to 13 years).

Study 2. The sample and procedures used for Study 2 were similar to those used for Study 1. More precisely, as part of a larger a larger study on job attitudes and turnover, we surveyed a random sample of alumni of a French-speaking Belgian school of industrial engineering. Surveys were sent to participants' home addresses along with a prepaid return envelope and a letter explaining the purpose of the study and ensuring confidentiality. Two weeks later, a reminder was sent to non-respondents. Questionnaires were coded to allow matching responses to turnover data collected one year later. Of those initially contacted, 264 (27%) answered the survey including measure of commitment, POS and PSS, and demographics. In this final sample, 6.10% were female, average age was 29.64 years ($SD = 3.73$; 22 to 37 years), average organizational tenure was 4.03 years ($SD = 3.05$; 0 to 20 years), and average tenure with the supervisor was 2.89 years ($SD = 2.67$; 0 to 11 years). As in Study 1, a large variety of industries were represented including manufacturing, information technology, transportation, consulting, and many others.

Measures

Commitment. We used the French version (Bentein, Vandenberg, Vandenberghe, & Stinglhamber, 2005; Stinglhamber, Bentein, & Vandenberghe, 2002) of Meyer et al.'s (1993; Meyer, Barak & Vandenberghe, 1996) scales to measure commitment to the organization. Six items were used to measure AC (e.g., "I feel like part of the family at my organization"; $\alpha_s = .79$ [Study 1] and $.84$ [Study 2]) and NC (e.g., "I think I would be guilty if I left my current organization now"; $\alpha_s = .92$ [Study 1] and $.92$ [Study

2]), and three items were used to measure CC:HS (e.g., “I would not leave this organization because of what I would stand to lose”; $\alpha_s = .77$ [Study 1] and $.75$ [Study 2]) and CC:LA (e.g., “I stay with this organization because I can’t see where else I could work”; $\alpha_s = .83$ [Study 1] and $.78$ [Study 2]).

Commitment to the supervisor was measured using Stinglhamber et al.’s (2002) scales (which were developed in French). We included six items to measure AC (e.g., “I feel proud to work with my supervisor”; $\alpha_s = .91$ [Study 1] and $.90$ [Study 2]) and CC (e.g., “Changing supervisors would require me to substantially re-organize the way I perform my job”; $\alpha_s = .83$ [Study 1] and $.87$ [Study 2]), and four items to measure NC (e.g., “I feel I have a moral obligation to continue working with my supervisor”; $\alpha_s = .91$ [Study 1] and $.80$ [Study 2]).

POS. We used an eight-item version, validated in French (Vandenberghe et al., 2004), of the POS scale (Eisenberger, Huntington, Hutchison, & Sowa, 1986) to measure perceptions of support from the organization (e.g., “My organization takes pride in my accomplishments at work”; $\alpha_s = .88$ [Study 1] and $.88$ [Study 2]).

PSS. We used a four-item version of the PSS scale (Kottke & Sharafinski, 1988) to measure perceptions of support from the supervisor (e.g., “My supervisor is willing to help me when I need a special favor”; $\alpha_s = .93$ [Study 1] and $.85$ [Study 2]).

Turnover. Voluntary turnover was treated as a binary variable with staying coded as 0 and voluntary leaving coded as 1. Forty-four individuals voluntarily left their organization in Study 1 (9.4%) whereas 32 did so in Study 2 (12.1%).

Analyses

Latent Profile Analyses (LPA: e.g., Morin, Morizot, et al., 2011; Muthén, 2002) were used to extract profiles of employees on the basis of their commitment levels. These analyses were conducted using the robust maximum likelihood (MLR) estimator in Mplus 7.11 (Muthén & Muthén, 2012). Models including 1 to 8 profiles were estimated for the commitment mindsets pertaining to both the organization (AC, NC, CC:HS, CC:LA) and supervisor (AC, NC, CC). To avoid converging on a local solution, models were estimated with 3000 random sets of start values (Hipp & Bauer, 2006; McLachlan & Peel, 2000), each

allowing a total of 100 iterations, with the 100 best solutions retained for final stage optimisation. All models converged on a well-replicated solution. The variable means (but not the variances) were also freely estimated in all profiles. Alternative models with the variances and/or covariances of the indicators freely estimated in all profiles (e.g., Morin, Maïano, et al., 2011; Peugh & Fan, 2013) generally tended to converge on improper solutions (negative variance estimates, non-positive definite Fisher Information matrix, etc.) or not to converge after multiple attempts (e.g., increasing the number of random starts or iterations, decreasing the convergence criteria). This suggests that these models, which may have been overparameterized (Bauer & Curran, 2003; Chen, Bollen, Paxton, Curran, & Kirby, 2001), are inadequate, and more parsimonious models are more appropriate (Bauer & Shanahan, 2007).

To select the optimal number of latent profiles in the data, multiple sources of information were considered. Two important criteria used in this decision were the substantive meaning and theoretical conformity of the extracted profiles (Marsh, Lüdtke, Trautwein, & Morin, 2009; Muthén, 2003) and the statistical adequacy of the solution (e.g., absence of negative variance estimates; Bauer & Curran, 2004). Several fit statistics also helped in this decision: the Akaike Information Criterion (AIC), the Consistent AIC (CAIC), the Bayesian information criterion (BIC), the sample-adjusted BIC (SABIC), and the Bootstrap Likelihood Ratio Test (BLRT). A lower value for the AIC, CAIC, BIC, and SABIC suggests a better-fitting model. The LMR and BLRT compare a k -profile model with a $k-1$ -profile model. A significant p value indicates that the $k-1$ -profile model should be rejected in favor of a k -profile model. However, because these fit indices are all variations of tests of statistical significance, their outcomes can still be influenced by sample size (Marsh et al., 2009). This means that they can continue to improve with the addition of latent profiles without ever reaching a minimal point. Thus, it has also been suggested that the information criteria be examined to identify where the decreasing values begin to flatten out (Morin, Maïano, et al., 2011; Petras & Masyn, 2010). An additional statistical indicator typically reported in LPA is the entropy. Although the entropy should not be used to determine the model with the optimal number of profiles, it nevertheless provides an important summary of the classification accuracy of a model.

Once the final model was chosen, the profiles were contrasted on the basis of the distal outcome

(turnover) and predictors (PSS and POS). Because Mplus does not allow for missing data on exogenous predictors, they were imputed with ML estimates using the EM algorithm (Little & Rubin, 2002) of SPSS 15.0 “missing values” module. Imputed estimates were conditional on all variables used in the study. The retained latent profiles were then contrasted on the basis of the distal outcome (turnover) using a method recently proposed by Lanza, Tan, and Bray (2013) and implemented in Mplus through the Auxiliary (DCAT) function (Asparouhov & Muthén, 2013). This allowed for the comparison of probabilities-based profiles on covariates without including these covariates in the model since doing so would have involved allowing them to influence the nature of the observed profiles (Morin, Morizot, et al., 2011; Petras & Masyn, 2009). Given that the outcome was measured later, such an impact on the definition of the profiles would represent a violation of the temporal ordering of these relations.

Finally, predictors were incorporated directly into the model to estimate the likelihood of membership into the various profiles through a multinomial logistic regression. In multinomial logistic regression, each predictor has $k-1$ (with k being the number of profiles) complementary effects for comparison of each profile to a referent profile. The regression coefficients represent the effects of the predictors on the log odds of the outcome (i.e., the probability of membership in one profile versus another in a pairwise comparison) that can be expected for a one-unit increase of the predictor. Since these coefficients are expressed in log-odds units, they are complex to interpret. Therefore, we also report odds ratios (ORs), reflecting the change in likelihood of membership in the target profile versus the comparison profile for each unit increase in the predictor. For instance, an OR of 2 indicates that for each unit increase in the predictor, participants are twice as likely to be a member of the target profile versus the comparison profile. ORs under 1, related to negative coefficients, indicate that the likelihood of membership in the target profile is reduced. To test the robustness of the effects, these analyses were conducted in three steps. First, a single predictor (POS or PSS) was included in the model. Second, both predictors (POS and PSS) were simultaneously integrated. Third, demographic controls (gender, organizational tenure, tenure with the supervisor) were also included.

Results

Confirmatory Factor Analyses

To examine the psychometric properties of the measures, we first estimated a multiple group confirmatory factor analytic model across the two study samples (i.e., a configural invariance model where the same model was estimated in both samples with no added constraints). These preliminary analyses were conducted using the Mplus 7.11 MLR estimator. This model specified nine a priori factors (organization: AC, NC, CC:HS, and CC:LA; supervisor: AC, NC, and CC; POS and PSS), and included correlated uniquenesses among negatively-worded items and parallel-worded POS and PSS items (i.e., to account for the methodological artefacts associated with these wording effects: Marsh, Scalas, & Nagengast, 2010; Marsh et al., 2013). This model provided a satisfactory fit to the data ($\chi^2 = 3458.254$; $df = 1868$; CFI = .913; TLI = .903; RMSEA = .048) according to commonly used guidelines (Hu & Bentler, 1999; Marsh, Hau & Wen, 2004). Next we tested and found evidence of invariance across samples for factor loadings ($\chi^2 = 3516.756$; $df = 1905$; CFI = .911; TLI = .904; RMSEA = .048), intercepts ($\chi^2 = 3633.042$; $df = 1942$; CFI = .907; TLI = .901; RMSEA = .048), and uniquenesses ($\chi^2 = 3693.592$; $df = 1988$; CFI = .906; TLI = .902; RMSEA = .048) using standard procedures (Millsap, 2011) and criteria (Chen, 2007; Cheung & Rensvold, 2002). Correlations among variables for both studies are reported in Table 1.

Profiles of Dual Commitment to the Organization and the Supervisor

The fit indices for the latent profile models for both studies are reported in Table 2. These results show that the CAIC reached its lowest levels for the solution including five latent profiles in Study 1, whereas it did so at four latent profiles in Study 2 (although the CAIC is almost identical for the 4- and 5-profile solutions in Study 2). The BLRT was not useful in selecting the optimal solution in either study. Although other indices continued to decrease with additional profiles, their decrease seemed to reach a plateau at five profiles in both studies. The 5-profile solution provides a reasonable level of classification accuracy, with an entropy value of .848 in Study 1 and .842 in Study 2. Similarly, the average posterior probabilities of class membership in the dominant profile varied from .842 to .907 in Study 1 and .868 to .953 in Study 2, with low cross-probabilities (varying from 0 to .132 in Study 1 and from 0 to .067 in

Study 2; see Table 3). This supports Hypothesis 1a. The results from the 5-profile solution are graphically depicted in Figure 1 for Study 1 and Figure 2 for Study 2 (the exact values are reported in Table 4). The profile structure was remarkably similar across studies, with only one relatively unique profile (Profile 5) in each. Thus, Hypothesis 2 regarding cross-sample stability is largely supported. In the following descriptions, profile size (percentage in Study 1 and Study 2, respectively) is indicated in parentheses.

For both studies, Profile 1 (36.80% / 30.68%) is characterized by moderately high levels of AC and NC to the organization and the supervisor. In contrast, their levels of CC (CC:LA and CC:HS to the organization; CC to the supervisor) were lower, and closer to the average observed in the total sample. Therefore, we labeled this profile *moderate AC/NC-dominant to both targets*. In both studies, Profile 2 (36.38% / 32.20%) reflects levels of AC, NC and CC to both the organization and supervisor approximately half a standard deviation below the mean, with no clear dominance of one mindset over the other. Because the scores are not extreme, we refer to this profile as reflecting *weak commitment to both targets* rather than uncommitted.

In both studies, Profile 3 (13.72% / 6.44%) shows some differentiation between commitment to the organization and the supervisor and describes employees with high levels of CC:LA and CC:HS to the organization, average levels of CC to the supervisor, and below average levels of AC and NC to both the organization and supervisor. Thus, although the tie to the supervisor is primarily based on an average level of CC to the supervisor, CC to the organization, particularly CC:LA, is very strong. We labeled this profile (*strong CC-dominant to the organization, moderate CC-dominant to the supervisor*). In both studies, Profile 4 (9.98% / 17.42%) is characterized by strong NC, above average AC, and lower CC to the organization and supervisor. Although NC is clearly stronger than AC, we labeled this profile *strong NC/AC-dominant to both targets* rather than NC-dominant given the above average levels of AC.

Profile 5 (3.12%; 13.26%) is unique in each study, but both reflect a different mindset pattern for commitment to the organization and supervisor. In Study 1, strong CC:LA is combined with moderate CC:HS and NC, with AC just above average. Commitment to the supervisor is characterized by very strong NC, strong CC, and moderate AC (albeit much stronger than AC to the organization). Thus, we

labeled this profile *CC/NC-dominant to the organization; fully committed to the supervisor*. In contrast, in Study 2 employees with Profile 5 seem more trapped in than indebted to the organization (i.e., CC:LA is very strong, CC:HS is above average, and AC and NC are both below average). All three mindsets pertaining to the supervisor are above average, with CC being strongest. Therefore, we labeled this profile *CC-dominant to the organization; strongly committed to the supervisor*. Note that employees with Profile 3 were also strongly trapped in the organization, but the two profiles differ in terms of the nature of their commitment to the supervisor. Overall, the findings are generally consistent with Hypothesis 1b (that weakly committed, CC-dominant, AC/NC-dominant, and fully committed profiles would be among those identified) and Hypothesis 1c (that the mindset configurations across targets would be similar for some subgroups and different for others).

Rates of Voluntary Turnover for the Dual Commitment Profiles

The results of profile comparisons on rates of voluntary turnover are reported in Table 5. In Study 1, turnover is lowest among employees with Profile 5 (*CC/NC-dominant to the organization; fully committed to the supervisor*), followed by Profile 4 (*strong NC/AC-dominant to both targets*), Profile 1 (*moderate AC/NC-dominant to both targets*), Profiles 3 (*strong CC-dominant to the organization; moderate CC-dominant to the supervisor*), and Profile 2 (*weak commitment to both targets*), respectively. However, only the differences between Profile 5 and Profiles 1 and 2, and between Profiles 4 and 2, were significant. These findings generally support Hypothesis 3 that turnover would be lower among those who are committed to either or both the organization and supervisor than among those who are uncommitted to either. Interestingly, however, turnover rates for employees with weak commitment to both targets (Profile 2) did not differ significantly from those with strong CC-dominant commitment to the organization and moderate CC-dominant commitment to the supervisor (Profile 3). Finding the lowest rates of turnover among employees with strong NC/AC-dominant commitment to both targets, or overall strong commitment to the supervisor, is consistent with Hypothesis 4 which predicted the superiority of fully-committed, AC/NC-dominant, or AC-dominant profiles over the CC-dominant or weakly committed profiles.

The pattern of findings in Study 2 was similar to that in Study 1 in most respects, but there were fewer significant differences, perhaps due to the overall smaller sample and subgroup sizes. Indeed, the only significant difference was that turnover rates were higher in Profile 2 (*weak commitment to both targets*) than in Profiles 1 (*moderate AC/NC-dominant to both targets*) and 4 (*strong NC/AC-dominant to both targets*). These differences are also generally consistent with Hypotheses 3 and 4. The most notable deviation from Study 1 involved Profile 5 which varied slightly in structure across the two studies. In Study 1, employees with Profile 5 (*CC/NC-dominant to the organization; fully committed to the supervisor*) had the lowest rates of turnover, whereas in Study 2 employees with Profile 5 (*CC-dominant to the organization; strongly committed to the supervisor*) did not differ significantly from any of the other profile groups.

Predictors of Membership into the Dual Commitment Profiles

The results of the analyses assessing the relations between POS/PSS and profile membership individually, together, and controlling for demographics are reported in Table 6 for Study 1 and Table 7 for Study 2. When considered on its own, POS significantly predicted the relative likelihood of membership in 8 of 10 profile comparisons in Study 1, and 4 of 10 comparisons in Study 2. When PSS was controlled, 4 of the 8 comparisons remained significant in Study 1, and 3 of 4 remained significant in Study 2. Interestingly, with PSS controlled, the unique contribution of POS to prediction became significant in another 3 comparisons in Study 2. When demographics were also controlled, only 2 comparisons were significant in Study 1, and 3 were significant in Study 2. Overall, the findings suggest that POS does predict profile membership. When considered on its own, higher scores on POS were associated with greater likelihood of membership in Profiles 1 (*moderate AC/NC-dominant to both targets*) and 4 (*strong NC/AC-dominant to both target*) compared to Profiles 2 (*weak commitment to both targets*) and 3 (*strong CC-dominant to the organization, moderate CC-dominant to the supervisor*) in both studies. When PSS and demographics were controlled, POS uniquely predicted the likelihood of membership in Profiles 1 and 4 compared to Profile 3 in Study 1, and Profile 4 compared to Profiles 2, 3, and 5 (*CC-dominant to the organization; strongly committed to the supervisor*) in Study 2. Thus,

consistent with Hypothesis 5, employees who perceived the organization as supportive were more likely to have a profile characterized by strong AC and NC to the organization than to be weakly committed or have a CC-dominant profile.

PSS on its own significantly predicted the relative likelihood of membership in 5 of 10 profile comparisons in Study 1, and 6 of 10 comparisons in Study 2. When POS was controlled, 3 of the 5 comparisons remained significant and one became significant in Study 1, and 4 of 6 remained significant in Study 2. When demographics were also controlled, 3 comparisons remained significant and one became significant in Study 1, and 4 remained significant in Study 2. Thus, like POS, PSS predicted profile membership. When considered on its own, higher scores on PSS were associated with greater likelihood of membership in Profiles 1 (*moderate AC/NC-dominant to both targets*) and 4 (*strong NC/AC-dominant to both targets*) compared to Profiles 2 (*weak commitment to both targets*) and 3 (*strong CC-dominant to the organization, moderate CC-dominant to the supervisor*) in both studies. When POS was controlled, PSS uniquely predicted the likelihood of membership in Profiles 1, 4 and 5 (*CC/NC-dominant to the organization, fully committed to the supervisor*) compared to Profile 2, and Profile 4 compared to Profile 3, in Study 1. The same comparisons remained significant when demographics were controlled. In Study 2, PSS uniquely predicted likelihood of membership in Profiles 1 and 4 compared to Profiles 2 and 3, and these comparisons remained significant when demographics were controlled. Thus, consistent with Hypothesis 6, employees who perceived the supervisor as supportive were more likely to have a profile characterized by strong AC and NC, or to be fully committed to the supervisor, than to be weakly committed or have a CC-dominant profile.

Hypothesis 7 predicted cross-over effects of POS on supervisor commitment and PSS on organizational commitment. The findings of greatest relevance to this hypothesis are those involving the unique contributions of POS and PSS to prediction of profile membership. When PSS was controlled, employees with high POS scores were more likely to have a profile reflecting moderate to strong AC and NC to the supervisor (Profiles 1 and 4) than to be weakly committed (Profile 2) or have a CC-dominant profile (Profile 3). Similarly, when POS was controlled, employees with high PSS scores were more

likely to have a profile reflecting moderate to strong AC or NC to the organization (Profiles 1 and 4) than to be weakly committed (Profile 2) or have a CC-dominant profile (Profile 3). Therefore, Hypothesis 7 is supported.

Discussion

This study is the first to examine mindset profiles of dual commitment to the organization and supervisor. The findings confirm that (a) employee samples are heterogeneous regarding their commitment to these two targets (b) profile membership can be predicted from perceptions of organizational and supervisor support, and (c) profile groups differ in their rates of voluntary turnover. The profiles obtained in two independent studies were quite similar (with one exception), thereby adding to the accumulating evidence for profile consistency and generalizability (Kam et al., in press; Meyer, Kam et al., 2013; Meyer, Stanley et al., 2013). In most cases, mindset patterns pertaining to the organization and supervisor were similar, although we also found patterns that appear to reflect dependency within nested commitments as proposed by Meyer and Allen (1997).

Contributions to Commitment Theory and Research

The value of the person-centered approach rests on identifying subgroups within a population that differ in meaningful ways on a set of variables. These subgroups can be considered meaningful to the extent that they emerge with some regularity across samples and/or are relatively stable over time within samples. Other criteria for meaningfulness include (a) predictability and (b) relevance. That is, it should be possible to predict (and thereby understand) profile membership from other variables, and profile membership should have implications for important outcomes such as turnover, performance, or well-being. These criteria have largely been met in research on organizational commitment mindsets. Our study provides a starting point in establishing the meaningfulness of mindset profiles involving commitments to dual targets – in this case the organization and supervisor.

Consistency and Generalizability. The fact that we found a similar profile structure in two studies with comparable samples is a step toward establishing within-population consistency. It remains to be determined whether the same structure will emerge across populations or over time. One reason for

optimism is the fact that the mindset configurations we identified for the two targets (e.g., weakly committed, CC-dominant; AC/NC-dominant) are highly similar to those obtained most frequently for organizational commitment mindsets (see Meyer, Stanley et al., 2013). We also established that profile membership is predictable from POS and PSS, and has implications for voluntary turnover. In both cases, the relationships were consistent with expectations based on commitment (Meyer & Allen, 1991; Meyer & Herscovitch, 2001) and support (Eisenberger et al., 1986, 2002) theories.

The generalizability of our findings across targets of commitment is more difficult to evaluate. In the only other multiple-mindset dual-target studies of which we are aware (Morin et al., in press; Tsoumbris & Xenikou, 2010) the targets were the organization and occupation. Tsoumbris and Xenikou (2010) found that the mindset pattern pertaining to the two targets was similar within profiles, whereas Morin et al. (in press) found similarity in some profiles and differences in others. In the present study, we found evidence for similarity in three profiles and differentiation in the other two. Like in Morin et al. (in press) study, the differences were more indicative of dependencies between the targets (Meyer & Allen, 1997) than of conflicting commitments. It is difficult to explain the differences given that the studies differ in several ways, including the nature of the dual targets (organization versus occupation or supervisor) and location/culture (Greece, Hong Kong, Belgium). It is noteworthy, however, that the two studies finding both similarities and differences in mindset patterns across targets had larger samples and used LPA rather than cluster analysis. Nevertheless, there is a need for more systematic research, particularly regarding the combination of targets. One important consideration is the degree of nesting among targets (Lawler, 1992). Supervisors are clearly nested within organizations, which can create dependencies (Meyer & Allen, 1997). Occupations on the other hand are not nested in the same way, but dependencies are still possible (e.g., continuing to work in an organization might require remaining in an occupation). As research begins to consider other target combinations (e.g., organization and career; supervisor and work group) refinements in theory regarding the nature and effects of nesting may be required.

Johnson and his colleagues (2010) provided another theoretical framework that could be useful in guiding future multi-mindset multi-target profile studies. As noted previously, they proposed that self-

identity and regulatory focus might combine to shape both the target and nature of employees' commitments in the workplace. This served as a basis for our prediction of profile heterogeneity. However, with heterogeneity now established, it should be possible to develop and test more precise predictions regarding profile membership using measures of self-identity (individual, relational, collective) and regulatory focus (promotion, prevention) as antecedent variables. For example, employees with a relational self-identity and a prevention focus might be expected to develop a stronger commitment to the supervisor than to the organization, with commitment to the organization being CC- or CC/NC-dominant (much like Profile 5 in our studies).

Similarity and Conflict across Targets. That we found similar mindset patterns for the organization and supervisor in three of the five profiles is consistent with the notion that supervisors are commonly viewed as an embodiment of the organization (Eisenberger et al., 2010). The parallel profiles reflect either a weak commitment, a moderate moral commitment (i.e., AC/NC-dominant), or a strong moral commitment to both targets. Of course, determining whether this parallelism represents supervisors' embodiment of the organization and/or other underlying mechanisms (e.g., value congruence) requires further investigation. Understanding when and how employees transfer commitment from one target to another can have important implications for organizations, particularly large amorphous organizations where it might be difficult to establish a strong collective identity directly.

To the extent that we found differences across targets, they appeared to reflect dependencies between the targets as proposed by Meyer and Allen (1997). This was most evident in Profile 5. Although slightly different across the two studies, in both cases employees in Profile 5 were strongly (above average AC, NC and CC) or morally (AC/NC-dominant) committed to the supervisor. In Study 1, their commitment to the organization reflected strong CC and NC, whereas in Study 2 it reflected only strong CC, particularly CC:LA. Both mindset patterns pertaining to the organization represent what Meyer, Becker and Van Dick (2006) described as transactional commitment (i.e., commitment based on tangible exchange as opposed to shared values). Thus, one explanation for the pattern in Profile 5 in both studies is that employees were strongly attached to their supervisor and, as a result, felt indebted to (Study 1: NC/CC-dominant) or

trapped in (Study 2: CC-dominant) the organization providing them with the opportunity to work with him/her.

The other case where the mindset profiles differed across the two targets was Profile 3 (*strong CC-dominant to the organization, moderate CC-dominant to the supervisor*). In both studies, CC:LA to the organization was elevated, suggesting that employees saw few alternative employment opportunities. CC:HS was also above average, suggesting that leaving would be costly. AC and NC to the supervisor were well below average and CC, at about average, was the strongest of the three, suggesting that employees also saw some cost associated with discontinuing the relationship with the supervisor. Because supervisors are nested within organizations, employees may have felt that seeking an alternative supervisory relationship would jeopardize employment in the organization which, as noted, would itself be quite costly. It is noteworthy that, although they were less likely to leave than employees with a weakly committed profile (Profile 2), employees with Profile 3 were no different with regard to level of perceived support. Both were less likely to feel supported than those with a moderate (Profile 1) or strong (Profile 4) moral commitment profile. Thus, employees with Profile 3 seem to be in a precarious, potentially unhealthy, position – they don't feel supported but may find it difficult to leave. It would be interesting for future research to determine how these employees differ from others in terms of discretionary effort and psychological well-being.

Previous multi-target profile studies have produced results that could be interpreted as reflecting commitment conflicts. For example, Becker and Billings (1993) identified employees who were more committed to their supervisor and work group (*locally committed*) and others who were more committed to the organization than to the supervisor or work group (*globally committed*). Similarly, Morin, Morizot et al. (2011) identified several profiles where commitments to some targets were above average and commitments to others were below average. However, these studies measured only AC to each target. We did not detect any profiles for which AC to one target was above average and AC to the other was below average. Only in Profile 5 did we observe a situation where AC to the supervisor was considerably stronger than AC to the organization (although both were above average). Thus, it would be difficult to

interpret our findings as demonstrating conflicting commitments. However, as noted above, by measuring multiple mindsets, we were able to demonstrate how strong attachment to a supervisor might compel employees to remain with an organization, not because they want to, but because they feel indebted or trapped. Such a pattern could lead employees to favor the supervisor over the organization under conditions where objectives are incompatible (e.g., meeting the request of a supervisor requires time away from activities that would benefit the organization).

General Relevance of the Person-Centered Approach. Careful examination of the dual commitment profiles and their relations with perceptions of organizational and supervisor support and voluntary turnover reveals a level of complexity that would be difficult or impossible to detect using a variable-centered approach. The mere fact that we measured seven mindsets across two targets suggests the potential for up to a 7-way interaction in the prediction of turnover. The configurations reflected in the five profiles would be virtually impossible to describe in variable-centered terminology (i.e., variations in the intercepts and slopes in a 7-dimensional space). Moreover, having identified different profile groups, we were able to use the likelihood of membership in these groups (i.e., posterior probabilities) as dependent variables to be predicted by POS and PSS. There is no comparable variable-centered analysis that would allow investigation of potential explanation for complex interactions among commitment mindsets and/or targets. The emergence of a reasonably stable set of profiles makes it increasingly easier to develop hypotheses concerning the nature, antecedents, and outcomes of person-centered analyses, as well as to interpret the results. There is also more theory (e.g., Johnson et al., 2010; Gellatly et al., 2006; Meyer & Maltin, 2010) available to guide hypothesis development. Thus, we hope that the present study will stimulate more person-centered research involving multiple mindsets and targets.

Limitations and Future Directions

Among the strengths of the present investigation are our use of two independent samples and the measurement of actual rates of voluntary turnover as an outcome variable. However, being the first study to examine mindset profiles simultaneously for dual commitments to the organization and supervisor, there are also limitations that need to be addressed in future research. First, the two studies included

similar samples of university-educated Belgian employees. More research is required to determine whether the findings will replicate with more diverse samples and in other locations. Second, because we measured POS, PSS, and commitment at the same time, it was impossible to address the direction of the observed relations. We treated POS and PSS as antecedent variables in the prediction of profile membership, but cannot rule out the possibility that the nature of employees' commitment is instrumental in shaping their perceptions of support. Moreover, we could only speculate on potential dependencies among commitments to the supervisor and the organization (e.g., whether being highly committed to the supervisor can contribute to feeling trapped in or indebted to the organization). A more thorough investigation of these dependencies would require a different research strategy (e.g., qualitative) or design (e.g., longitudinal).

Because our primary objective was to investigate the viability of taking a person-centered approach within the context of dual organizational and supervisor commitment, our selection of potential antecedent and consequence variables was limited. The findings suggest that profile membership has implications for voluntary turnover, an outcome of longstanding interest in commitment research (Meyer & Allen, 1997; Mowday et al., 1982). However, commitment profiles might differ more in their association with discretionary behaviors such as organizational citizenship behaviors (OCB) directed at the different targets (Meyer & Herscovitch, 2001). We also found that POS and PSS both contributed to profile membership, but there are many other antecedents (e.g., human resource management [HRM] practices; leadership style) and mediating mechanisms (e.g., social exchange; need satisfaction) that warrant investigation. Therefore, future research should include a wider range of potential antecedent and outcome variables.

Finally, in this study we treated CC to the organization as having two dimensions, CC:HS and CC:LA, but had no strong basis for predicting the implication for profile structure. Although it does not appear that inclusion of the two dimensions affected overall profile structure compared to previous studies using a unidimensional measure, there were cases where scores on the two dimensions differed within profile. Most notably, in the two profiles where CC was the dominant organizational commitment

mindset (i.e., Profiles 3 and 5), CC:LA was clearly stronger than CC:HS. Future research may be warranted to investigate more systematically whether the nature of the costs associated with leaving an organization (lack of alternatives or perceived sacrifices) makes a difference with regard to the profiles that are detected and their implications for important outcomes (e.g., retention, performance, well-being).

Practical Implications

Our findings suggest that there are discernable profiles of commitment mindsets pertaining to the organization and supervisor within a population of employees, and that these profiles have implications for retention. From a practical standpoint, it appears that organizations may have some control over the nature of the commitment profiles that predominate in their workforce. In our admittedly narrow investigation of antecedents, we found that POS and PSS are potentially important predictors of profile membership. According to Eisenberger et al. (1990, 2002), POS reflects the commitment that employees believe their organizations have made to them, and PSS reflects a similar commitment on the part of the supervisor. Commitment from the organization and supervisor is likely to be viewed positively and instill a sense of obligation on the part of employees to reciprocate. Thus it is not surprising that as POS and PSS increased, employees were more likely to experience a sense of moral commitment (i.e., AC/NC-dominant, a desire to do what is right; Meyer & Parfyonova, 2010) which, in turn, led to lower levels of turnover. Employees who do not feel supported are more likely to have weak commitment or, if there are potential costs of leaving, to feel trapped. Not only are these profiles associated with higher levels of turnover compared to the morally committed profiles, they have also been linked to lower levels of performance, OCB, and well-being in studies of organizational commitment (Gellatly et al., 2006; Meyer et al., 2012; Wasti, 2005).

With perceived support identified as one key mechanism, employers can turn to an extensive literature to identify specific human resource management practices (Kuvaas, Dysvik, & Buch, 2014; Liao, Toya, Lepak, & Hong, 2009; Whitener, 2001) they can use to demonstrate support. For example, they can implement work-family friendly policies (e.g., on-site child care) to increase work-life balance (Kossek, Pichler, Bodner, & Hammer, 2011). Similarly, facilitating employees' participation in formal

developmental activities (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011) or taking the initiative to provide employees with favorable job conditions (Eisenberger, Cummings, Armeli, & Lynch, 1997) are likely to instill higher levels of POS. Supervisors can also take actions that increase PSS. For example, helping to foster intrinsically-satisfying job conditions (Stinglhamber & Vandenberghe, 2004) or exhibiting behaviors that are supportive of employees' family roles (Hammer, Kossek, Bodner, & Crain, 2013) can indicate supervisor support. Our findings suggest that POS and PSS are both important and have unique additive effects on profile membership. Thus, although either might be effective, neither should be assumed to be a substitute for the other.

Conclusions

In sum, our findings illustrate the benefits of a person-centered approach in the study of dual commitments, in this case to the organization and supervisor. The detection of profiles allows for a more holistic view of the nature and targets of employees' commitment that incorporate potentially complex interactions. More research on organization/supervisor and other target combinations is clearly needed. Ideally, this research will be guided by existing theory and help to stimulate development of additional theory with a person-centered focus. In the meantime, organizations should recognize that employee commitment can vary in mindset and focus, and consider carefully how they might foster optimal profiles for the conditions in which they are operating.

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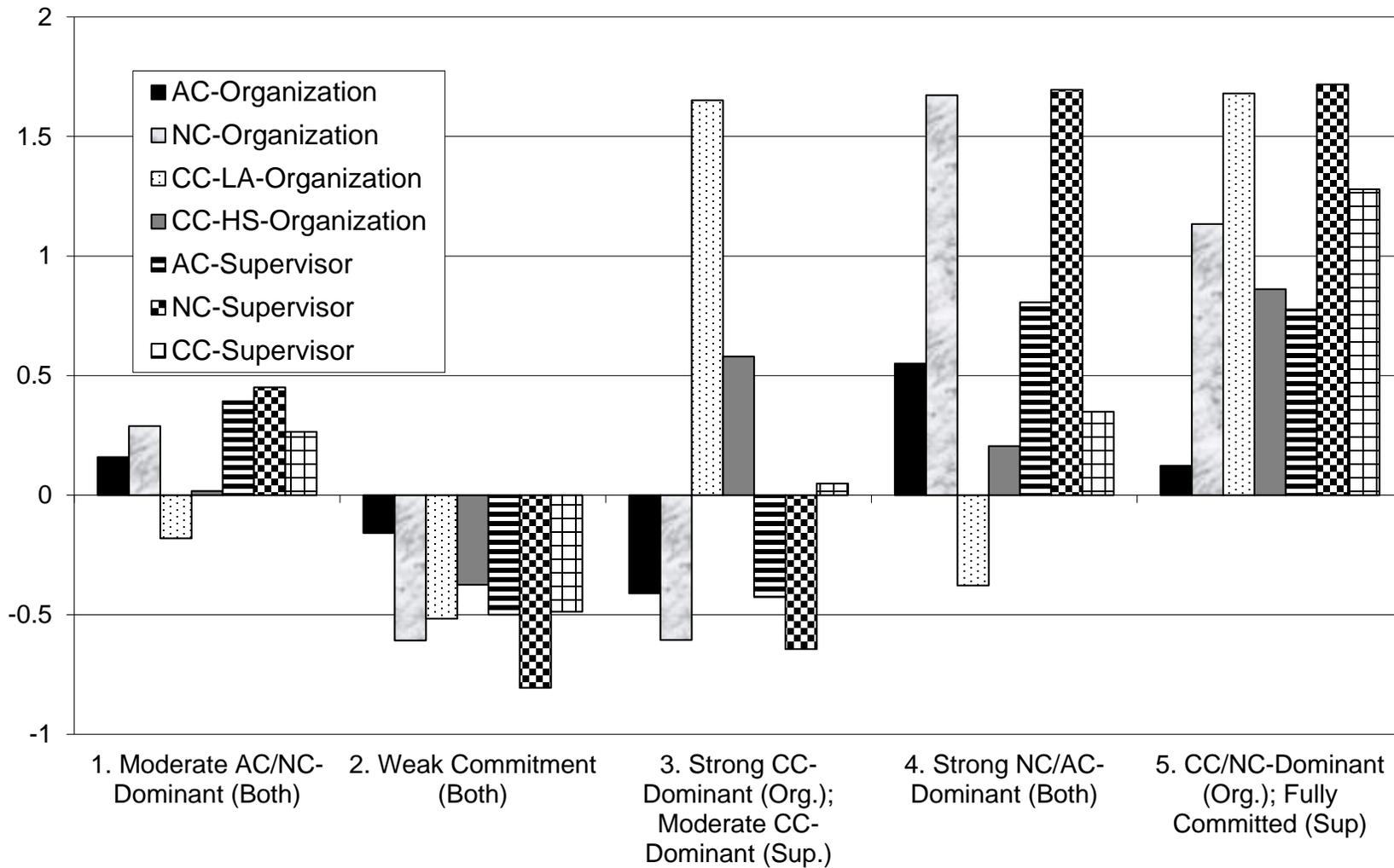


Figure 1. Characteristics of the Latent Profiles Based on Dual Commitment Mindsets obtained in Study 1.

Note. The results were standardized to a mean of 0 and a standard deviation of 1 to help in the interpretation of this histogram; AC = Affective Commitment; NC = Normative Commitment; CC = Continuance Commitment; LA = Lack of Alternatives; HS = High Sacrifice.

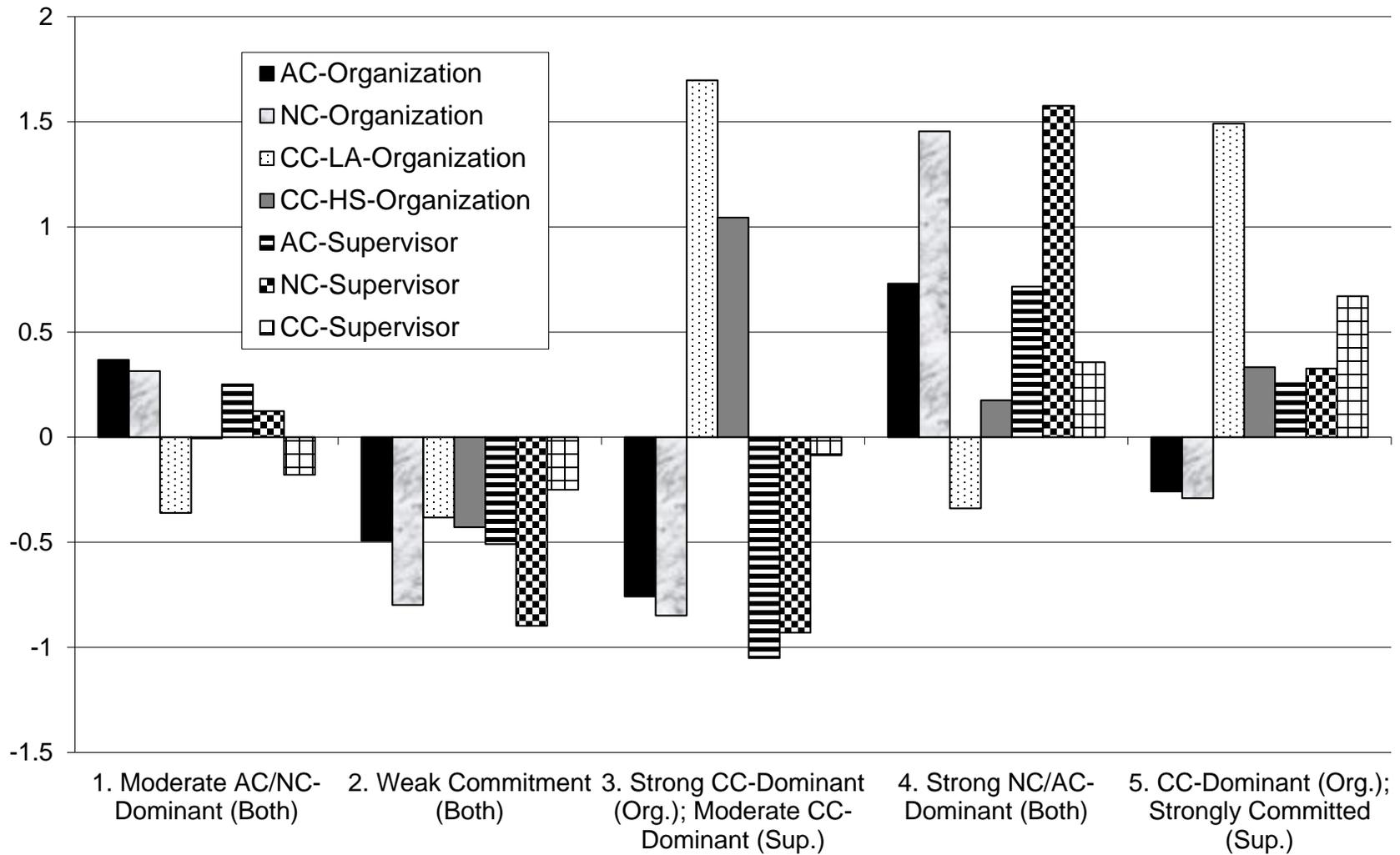


Figure 2. Characteristics of the Latent Profiles Based on Dual Commitment Mindsets obtained in Study 2.

Note. The results were standardized to a mean of 0 and a standard deviation of 1 to help in the interpretation of this histogram; AC = Affective Commitment; NC = Normative Commitment; CC = Continuance Commitment; LA = Lack of Alternatives; HS = High Sacrifice.

Table 1

Correlations for the Variables in Study 1 (above the diagonal) and Study 2 (under the diagonal)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 - Turnover		.063	-.101	-.082	-.060	-.191**	-.098	-.139**	-.061	-.176**	-.253**	-.177**	-.163**
2 - Gender	.094		-.049	-.002	.130**	.007	.082	-.013	-.150**	-.092*	-.035	-.063	-.012
3 - Tenure (org.)	-.107	.061		.548**	-.131**	-.064	.139**	-.133**	.177**	.076	.015	-.112*	.042
4 - Tenure (sup.)	-.035	.081	.743**		-.122**	-.064	.038	-.003	.219**	.090*	.055	.031	.160**
5 - POS	-.144*	.069	-.047	.068		.563**	.476**	.307**	-.231**	.077	.319**	.193**	-.040
6 - PSS	-.249**	.002	.022	.042	.634**		.337**	.205**	-.164**	.089	.648**	.342**	.176**
7 - AC-Organization	-.298**	.162**	.047	.108	.459**	.353**		.314**	-.126**	.172**	.385**	.177**	.069
8 - NC-Organization	-.124**	-.022	-.185**	-.015	.354**	.223**	.490**		-.028	.144**	.288**	.727**	.154**
9 - CC-LA-Organization	-.047	-.088	.101	.066	-.259**	-.232**	-.185**	-.166**		.288**	-.071	.028	.190**
10 - CC-HS-Organization	-.259**	.016	.048	.061	.176**	.199**	.162**	.087	.261**		.104*	.145**	.140**
11 - AC-Supervisor	-.256**	.126**	.015	.085	.470**	.647**	.454**	.275**	-.125*	.145*		.505**	.375**
12 - NC-Supervisor	-.178**	.037	-.180**	-.052	.328**	.321**	.364**	.716**	-.025	.164**	.499**		.364**
13 - CC-Supervisor	.028	-.022	.066	.122*	.066	.053	-.009	.039	.219**	.079	.226**	.258**	

Note. * $p < .05$; ** $p < .01$; AC = Affective Commitment; NC = Normative Commitment; CC = Continuance Commitment; LA = Lack of Alternatives; HS = High Sacrifice.

Table 2

Fit Results from the Latent Profiles Analyses Conducted in this Study.

Model	LL	#fp	Scaling	AIC	CAIC	BIC	SABIC	Entropy	BLRT
<i>Study 1 (n = 481)</i>									
1 Profile	-4484.110	14	0.937	8996.220	9068.682	9054.682	9010.247	Na	Na
2 Profile	-4236.345	22	1.085	8516.691	8630.560	8608.560	8538.734	0.827	≤ 0.001
3 Profile	-4165.124	30	1.306	8390.248	8545.524	8515.524	8420.307	0.810	≤ 0.001
4 Profile	-4110.568	38	1.244	8297.135	8493.818	8455.818	8335.210	0.814	≤ 0.001
5 Profile	-4073.964	46	1.197	8239.929	8478.019	8432.019	8286.019	0.848	≤ 0.001
6 Profile	-4046.194	54	1.400	8200.387	8479.884	8425.884	8254.493	0.847	≤ 0.001
7 Profile	-4019.237	62	1.150	8162.474	8483.378	8421.378	8224.596	0.882	≤ 0.001
8 Profile	-3991.391	70	1.093	8122.781	8485.092	8415.092	8192.919	0.910	≤ 0.001
Final model with predictor (POS)	-4045.139	50	1.171	8190.278	8449.071	8399.071	8240.376	0.845	NA
Final model with predictor (PSS)	-4037.205	50	1.246	8174.410	8433.204	8383.204	8224.508	0.843	NA
Final model with predictors (POS, PSS)	-4026.081	54	1.215	8160.161	8439.658	8385.658	8214.267	0.846	NA
Final model with predictors (POS, PSS) and demographics	-3994.481	66	1.242	8120.962	8462.569	8396.569	8187.092	0.850	NA
<i>Study 2 (n = 264)</i>									
1 Profile	-2396.299	14	0.973	4820.598	4884.662	4870.662	4826.275	Na	Na
2 Profile	-2254.858	22	1.128	4553.717	4654.388	4632.388	4562.637	0.834	≤ 0.001
3 Profile	-2210.514	30	1.157	4481.029	4618.307	4588.307	4493.192	0.826	≤ 0.001
4 Profile	-2179.294	38	1.283	4434.588	4608.474	4570.474	4449.994	0.805	≤ 0.001
5 Profile	-2153.057	46	1.208	4398.114	4608.608	4562.608	4416.765	0.842	≤ 0.001
6 Profile	-2129.755	54	1.224	4367.510	4614.611	4560.611	4389.404	0.851	≤ 0.001
7 Profile	-2105.578	62	1.196	4335.156	4618.865	4556.865	4360.293	0.847	≤ 0.001
8 Profile	-2086.765	70	1.174	4313.531	4633.847	4563.847	4341.912	0.860	≤ 0.001
Final model with predictor (POS)	-2122.742	50	1.417	4345.483	4574.281	4524.281	4365.755	0.836	NA
Final model with predictor (PSS)	-2118.124	50	1.290	4336.248	4565.045	4515.045	4356.520	0.830	NA
Final model with predictors (POS, PSS)	-2104.895	54	1.260	4317.790	4564.892	4510.892	4339.684	0.836	NA
Final model with predictors (POS, PSS) and demographics	-2089.093	66	1.167	4310.187	4612.200	4546.200	4336.946	0.846	NA

Note. LL = Model loglikelihood; #fp = Number of free parameters; AIC = Akaike information criterion; CAIC = Consistent AIC; BIC = Bayesian information criterion; SABIC = Sample-size adjusted BIC; LMR: Lo-Mendel-Rubin Likelihood Ratio Test; BLRT: Bootstrap Likelihood Ratio Test; NA = not applicable; POS = Perceived Organizational support; PSS = Perceived Supervisor support.

Table 3

Posterior Classification Probabilities for Most Likely Latent Profile Membership (Row) by Latent Profile (Column) for the Final Dual Commitment Profiles.

Profiles	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5
<i>Study 1</i>					
Profile 1	0.906	0.054	0.010	0.029	0.000
Profile 2	0.076	0.907	0.018	0.000	0.000
Profile 3	0.052	0.048	0.900	0.000	0.000
Profile 4	0.132	0.000	0.000	0.860	0.008
Profile 5	0.106	0.000	0.002	0.051	0.842
<i>Study 2</i>					
Profile 1	0.872	0.056	0.000	0.027	0.045
Profile 2	0.060	0.916	0.012	0.000	0.012
Profile 3	0.011	0.067	0.868	0.000	0.054
Profile 4	0.038	0.000	0.000	0.953	0.009
Profile 5	0.047	0.030	0.021	0.007	0.895

Table 4

Mean Levels of Commitment in the Retained Dual Commitment Latent Profile Models.

	Grand Mean	SD	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Summary (significance tests)
<i>Study 1</i>								
AC-Organization	3.098	0.765	3.220	2.977	2.784	3.519	3.192	2 = 3 < 1 < 4; 5 = 1; 5 = 2; 5 = 3; 5 = 4.
NC-Organization	2.220	0.995	2.508	1.615	1.617	3.885	3.349	2 = 3 < 1 < 4 = 5.
CC-LA-Organization	1.910	0.938	1.741	1.426	3.458	1.556	3.485	2 < 1 < 3 = 5; 1 = 4; 2 = 4; 4 < 3 = 5.
CC-HS-Organization	2.783	0.961	2.800	2.423	3.340	2.980	3.611	2 < 1 = 4 < 3 = 5.
AC-Supervisor	3.159	0.978	3.543	2.670	2.742	3.947	3.918	2 = 3 < 1 < 4; 2 = 3 < 5; 1 = 5; 4 = 5.
NC-Supervisor	2.111	1.000	2.562	1.305	1.467	3.807	3.829	2 = 3 < 1 < 4 = 5.
CC-Supervisor	2.328	0.811	2.543	1.933	2.367	2.611	3.366	2 < 1 = 3 = 4 < 5.
<i>Study 2</i>								
AC-Organization	3.292	0.832	3.598	2.881	2.661	3.900	3.077	2 = 3 = 5 < 1 = 4.
NC-Organization	2.470	1.068	2.806	1.617	1.563	4.024	2.160	2 = 3 < 1 = 5 < 4.
CC-LA-Organization	1.807	0.856	1.498	1.480	3.26	1.517	3.084	1 = 2 = 4 < 3 = 5.
CC-HS-Organization	2.722	0.902	2.716	2.336	3.664	2.880	3.022	2 < 1 = 4 = 5; 2 < 1 = 4 < 3; 3 = 5.
AC-Supervisor	3.287	0.868	3.505	2.845	2.375	3.908	3.510	2 = 3 < 1 = 5 < 4.
NC-Supervisor	2.278	0.935	2.393	1.439	1.408	3.752	2.583	2 = 3 < 1 = 5 < 4.
CC-Supervisor	2.214	0.766	2.077	2.022	2.148	2.487	2.727	1 = 2 < 4 = 5; 1 = 2 = 3; 3 = 4 = 5.

Note. * $p < .05$; ** $p < .01$; AC = Affective commitment; NC = Normative commitment; CC = Continuance commitment; LA = Lack of alternatives; HS = High sacrifice.

Table 5
Rates of Turnover Observed in the Estimated Latent Profiles.

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Summary of significance tests ($p \leq .05$)
Study 1 Turnover (%)	9.1%	20.2%	12.2%	2.3%	0%	1 = 4 < 2; 5 < 2 = 3; 5 < 1 = 3; 3 = 4; 4 = 5.
Study 2 Turnover (%)	8.2%	23.8%	9.3%	2.5%	6.9%	1 = 4 < 2; 1 = 3 = 4 = 5; 2 = 3 = 5.

Table 6
Results from the Multinomial Logistic Regression Evaluating the Effects of Predictors on Latent Profile Membership (Study 1)

	Latent profile 1 Vs 5		Latent profile 2 Vs 5		Latent profile 3 Vs 5		Latent profile 4 Vs 5		Latent profile 1 Vs 4		Latent profile 2 Vs 4	
	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
<i>Predictors (Univariate)</i>												
POS	0.510 (0.412)	1.665	-0.010 (0.409)	0.990	-0.956 (0.435)*	0.384	1.145 (0.452)*	3.142	-0.635 (0.292)*	0.530	(0.297)**	0.315
PSS	0.035 (0.509)	1.035	-0.876 (0.519)	0.416	-1.125 (0.527)*	0.325	0.564 (0.572)	1.757	-0.529 (0.291)	0.589	(0.290)**	0.237
<i>Predictors (Multivariate)</i>												
POS	0.694 (0.450)	2.002	0.722 (0.483)	2.058	-0.453 (0.570)	0.636	1.180 (0.529)*	3.256	-0.486 (0.355)	0.615	-0.459 (0.361)	0.632
PSS	-0.308 (0.539)	0.735	-1.229 (0.561)*	0.293	-0.893 (0.614)	0.410	0.025 (0.621)	1.025	-0.333 (0.333)	0.717	(0.332)**	0.285
<i>Predictors + Demographics</i>												
Gender	1.631 (0.613)**	5.109	1.471 (0.611)*	4.355	0.790 (0.649)	2.203	0.642 (0.711)	1.900	0.989 (0.448)*	2.689	0.830 (0.427)	2.293
Tenure (org)	0.314 (0.251)	1.369	0.383 (0.250)	1.467	0.456 (0.251)	1.578	0.157 (0.294)	1.170	0.157 (0.144)	1.170	0.226 (0.142)	1.254
Tenure (sup)	-0.726 (0.257)**	0.484	-0.931 (0.265)**	0.394	-0.632 (0.260)*	0.531	-0.662 (0.361)	0.516	-0.064 (0.219)	0.938	-0.269 (0.213)	0.764
POS	0.419 (0.507)	1.520	0.390 (0.530)	1.477	-0.472 (0.551)	0.624	0.924 (0.588)	2.519	-0.505 (0.373)	0.604	-0.534 (0.380)	0.586
PSS	-0.345 (0.603)	0.708	-1.270 (0.649)*	0.281	-1.023 (0.658)	0.360	0.016 (0.751)	1.016	-0.361 (0.405)	0.697	(0.380)**	0.276
<i>Predictors (Univariate)</i>												
POS	-2.101 (0.362)**	0.122	1.466 (0.303)**	4.332	0.946 (0.313)**	2.575	0.520 (0.263)*	1.682				
PSS	-1.689 (0.318)**	0.185	1.160 (0.238)**	3.190	0.249 (0.234)	1.283	0.911 (0.228)**	2.487				
<i>Predictors (Multivariate)</i>												
POS	-1.633 (0.553)**	0.195	1.147 (0.477)*	3.149	1.175 (0.578)*	3.238	-0.027 (0.306)	0.973				
PSS	-0.918 (0.469)*	0.399	0.585 (0.386)	1.795	-0.336 (0.454)	0.715	0.921 (0.236)**	2.512				
<i>Predictors + Demographics</i>												
Gender	0.148 (0.503)	1.160	0.841 (0.418)*	2.319	0.682 (0.393)	1.978	0.160 (0.331)	1.174				
Tenure (org)	0.299 (0.149)*	1.349	-0.142 (0.073)	0.868	-0.073 (0.067)	0.930	-0.069 (0.056)	0.933				
Tenure (sup)	0.030 (0.229)	1.030	-0.094 (0.107)	0.910	-0.299 (0.106)**	0.742	0.205 (0.097)*	1.228				

POS	-1.395 (0.523)**	0.248	0.890 (0.445)*	2.435	0.862 (0.530)	2.368	0.028 (0.309)	1.028
PSS	-1.039 (0.524)*	0.354	0.678 (0.398)	1.970	-0.247 (0.468)	0.781	0.925 (0.247)**	2.522

Note. * $p < .05$; ** $p < .01$; SE: standard error; OR: Odds Ratio; POS = Perceived Organizational support; PSS = Perceived Supervisor support.

Table 7

Results from the Multinomial Logistic Regression Evaluating the Effects of Predictors on Latent Profile Membership (Study 2)

	Latent profile 1 Vs 5		Latent profile 2 Vs 5		Latent profile 3 Vs 5		Latent profile 4 Vs 5		Latent profile 1 Vs 4		Latent profile 2 Vs 4	
	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
<i>Predictors (Univariate)</i>												
POS	0.747 (0.962)	2.111	-0.241 (0.858)	0.786	-2.072 (1.844)	0.126	1.553 (0.923)	4.725	-0.806 (0.421)	0.447	-1.794 (0.403)**	0.166
PSS	0.884 (0.860)	2.421	-1.202 (0.863)	0.301	-1.233 (0.845)	0.291	1.455 (0.711)*	4.283	-0.571 (0.482)	0.565	-2.657 (0.545)**	0.070
<i>Predictors (Multivariate)</i>												
POS	0.230 (0.503)	1.258	-0.130 (0.541)	0.878	-1.512 (0.906)	0.221	1.418 (0.524)**	4.127	-1.188 (0.455)**	0.305	-1.548 (0.557)**	0.213
PSS	0.752 (0.689)	2.121	-1.169 (0.741)	0.311	-0.655 (0.755)	0.520	0.724 (0.649)	2.062	0.028 (0.399)	1.028	-1.892 (0.513)**	0.151
<i>Predictors + Demographics</i>												
Gender	1.401 (1.423)	4.057	-1.229 (1.269)	0.293	-2.212 (1.351)	0.109	0.058 (1.204)	1.060	1.342 (1.073)	3.827	-1.287 (0.911)	0.276
Tenure (org.)	0.171 (0.151)	1.187	-0.045 (0.187)	0.956	0.283 (0.178)	1.327	-0.369 (0.251)	0.691	0.540 (0.248)*	1.716	0.324 (0.219)	1.383
Tenure (sup)	-0.214 (0.152)	0.807	-0.015 (0.189)	0.985	-0.137 (0.181)	0.872	0.300 (0.246)	1.350	-0.514 (0.243)*	0.598	-0.315 (0.213)	0.730
POS	0.240 (0.492)	1.271	-0.225 (0.528)	0.799	-1.103 (0.812)	0.332	1.230 (0.520)*	3.422	-0.990 (0.509)	0.372	-1.455 (0.552)**	0.233
PSS	0.660 (0.676)	1.934	-1.257 (0.738)	0.285	-0.925 (0.777)	0.396	0.826 (0.662)	2.284	-0.166 (0.491)	0.847	-2.083 (0.567)**	0.125
	Latent profile 3 Vs 4		Latent profile 1 Vs 3		Latent profile 2 Vs 3		Latent profile 1 Vs 2					
Predictor	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR				
<i>Predictors (Univariate)</i>												
POS	-3.625 (1.207)**	0.027	2.819 (1.125)*	16.760	1.831 (1.212)	6.240	0.989 (0.360)**	2.689				
PSS	-2.688 (0.537)**	0.068	2.117 (0.496)**	8.306	0.031 (0.424)	1.031	2.086 (0.381)**	8.053				
<i>Predictors (Multivariate)</i>												
POS	-2.929 (0.857)**	0.053	1.741 (0.812)*	5.703	1.381 (0.946)	3.979	0.360 (0.513)	1.433				
PSS	-1.378 (0.551)**	0.252	1.406 (0.530)**	4.080	-0.514 (0.537)	0.598	1.920 (0.480)**	6.821				
<i>Predictors + Demographics</i>												
Gender	-2.270 (1.039)*	0.103	3.612 (0.997)**	37.040	0.983 (0.937)	2.672	2.630 (0.986)**	13.874				
Tenure (org.)	0.652 (0.242)**	1.919	-0.112 (0.116)	0.894	-0.328 (0.165)*	0.720	0.216 (0.156)	1.241				
Tenure (sup)	-0.437 (0.244)	0.646	-0.077 (0.130)	0.926	0.122 (0.175)	1.130	-0.199 (0.155)	0.820				
POS	-2.333 (0.788)**	0.097	1.343 (0.709)	3.831	0.878 (0.838)	2.406	0.465 (0.523)	1.592				
PSS	-1.751 (0.627)**	0.174	1.585 (0.605)**	4.879	-0.332 (0.613)	0.717	1.916 (0.511)**	6.794				

Note. * $p < .05$; ** $p < .01$; SE: standard error; OR: Odds Ratio; POS = Perceived Organizational support; PSS = Perceived Supervisor support.