Journal of Management & Organization (2024), page 1 of 22
doi:10.1017/jmo.2024.25

ANZAM
AUSTRALIAN & NEW ZEALAND ACADEMY OF MANAGEMENT

RESEARCH ARTICLE

Psychological need satisfaction, frustration, and unfulfillment profiles in the workplace: Their nature, predictors, and outcomes

Tomas Jungert[1], Sylvain Caruana[2], Nicolas Gillet[3] and Tiphaine Huyghebaert-Zouaghi[2]

[1]Lund University, Lund, Sweden; [2]Laboratoire C2S, Université de Reims Champagne Ardenne, Reims, France and [3]Université de Tours, France (QualiPsy) and Institut Universitaire de France, Tours, France
Corresponding author: Tomas Jungert; Email: tomas.jungert@psy.lu.se

(Received 10 May 2023; revised 2 April 2024; accepted 21 May 2024)

Abstract
Based on self-determination theory, this research relied on person-centered analyses to show how the distinct components of psychological need states combine to produce distinct profiles. We also explored contemporarily antecedents (perceptions of the organization's environmental corporate social responsibility and negative moral emotions related to the organization's environmental (ir)responsibility) and organizational outcomes (affective organizational commitment, turnover intentions, and cyberslacking). Questionnaire surveys were completed by 525 French employees. Four profiles characterized by configurations of psychological need states were identified and showed well-differentiated patterns. Negative moral emotions predicted membership in the most detrimental need states profiles while corporate social responsibility perceptions did not. As expected, we found opposite patterns of associations between profile membership and affective organizational commitment and turnover intentions, while the highest levels of cyberslacking were found in the most positive need states profiles. The results add to person-centered research and emphasize the importance of psychological experiences in the workplace and organizational outcomes.

Keywords: psychological needs; environmental corporate social responsibility; negative moral emotions; affective organizational commitment; turnover intentions; cyberslacking

Research based on self-determination theory (SDT; Ryan & Deci, 2017) has demonstrated that workplaces that satisfy employees' psychological needs for autonomy, competence, and relatedness facilitate individuals' adaptive functioning (e.g., autonomous motivation, work engagement, job performance, job satisfaction; Gillet, Forest, Benabou, & Bentein, 2015; Huyghebaert et al., 2018a; Trépanier, Fernet, & Austin, 2015). Conversely, research anchored in this theoretical framework has showed that the work environment could also lead to maladaptive functioning by frustrating employees' psychological needs (e.g., burnout, work–family conflict, turnover, psychological distress; Gillet et al., 2015; Huyghebaert, Gillet, Fernet, Lahiani, & Fouquereau, 2018b; Trépanier et al., 2015). These bright and dark sides of employees' work-related need states are thus key in understanding their (mal)adaptive functioning in the workplace. Interestingly, recent findings based on SDT showed that these opposite experiences were not sufficient to produce a full picture of work-related need states (Huyghebaert-Zouaghi, Ntoumanis, Berjot, & Gillet, 2021). More precisely, these recent theoretical advances showed that individuals' psychological needs are not experienced in a dichotomous

manner, through the beneficial and adverse experiences of need satisfaction and frustration, respectively (Huyghebaert-Zouaghi et al., 2021). Rather, this recent stream of research showed the existence of a third need state, when tested alongside need satisfaction and frustration. Employees may also undergo a more nuanced and less actively negative psychological experience (relative to need frustration), in the form of need unfulfillment (i.e., a negative psychological need experience of deactivation, where one feels that the psychological needs are in a state of negligence). Interestingly, this research showed need unfulfillment, need frustration, and need satisfaction to predict outcomes that differ in nature, and, thus, reinforced the importance of simultaneously considering the full range of employees' psychological need states.

Yet, the variable-centered approach mostly used in past research on psychological needs (e.g., Gillet et al., 2015; Huyghebaert-Zouaghi et al., 2021; Trépanier et al., 2015) focuses on average relations between each need state and covariates. These variable-centered studies have failed to address the possibility that need satisfaction, frustration, and unfulfillment may co-occur in different combinations (i.e., profiles) in employees. For instance, Rouse et al. (2020) showed that workers could simultaneously experience high competence satisfaction and high competence frustration (e.g., mastery in some work areas but inadequacy in other areas). Interestingly, person-centered/profile analyses have important practical implications, for they appear to be a representative reflection of managers' and human resources/occupational health professionals' tendency to think of workers as falling into different types or categories of individuals.

Despite these important implications, only one recent study (Huyghebaert-Zouaghi, Gillet, Fernet, Thomas, & Ntoumanis, 2022a) has examined how employees' psychological need satisfaction, frustration, and unfulfillment combine to form distinct profiles of employees. Yet, person-centered evidence is built upon results obtained across multiple samples, which is necessary to identify the core set of profiles that systematically appear and to distinguish them from those reflecting sample- or context-specific characteristics (Morin, 2016). Moreover, identifying emergent subpopulations allows the results to be generalized to all subjects that may be represented by these subpopulations (Howard & Hoffman, 2018). Identifying multiple profiles is highly important in organizational research because it makes it possible to identify homogeneous subpopulations of employees within a heterogeneous population. Moreover, even though we do not control for occupations, this study can contribute by showing that the profiles can be generalized to other random samples of employees. As such we can expect these profiles to be found in a variety of samples, and thus target them as actionable levers for intervention etc. Such knowledge could have important theoretical and practical implications, regarding, for example, whether work conditions can best be improved by redesigning jobs, or by treating individuals, or both. The first goal of the present study was thus to expand upon Huyghebaert-Zouaghi et al.'s (2022a) study to analyze the nature of psychological need states profiles and offer a test of generalizability to help identify need states profiles among distinct samples of employees.

In person-centered analyses, it is also critical to document the theoretical and practical implications of the identified profiles via the examination of their associations with relevant predictors and outcomes (Marsh, Lüdtke, Trautwein, & Morin, 2009; Morin, 2016). On one hand, without information related to key predictors of psychological need states profiles, knowledge regarding the nature of these profiles will be of limited utility for managers and organizations who need to know which levers can be used to influence profile membership. Yet, in their study, Huyghebaert-Zouaghi et al. (2022a) only investigated managerial antecedents of psychological need states profiles, thus limiting our understanding of other possible causes of these profiles. Importantly, climate change has become a key topic in the workplace, and organizations' (ir)responsibility related to environmental issues comes with important implications for employees' cognitions (e.g., perceptions of environmental corporate social responsibility [CSR]; El Akremi, Gond, Swaen, De Roeck, & Igalens, 2018) and emotions (e.g., moral emotions regarding one's organization's environmental responsibility; Greenbaum, Bonner, Gray, & Mawritz, 2020). Yet, little is known about the psychological implications (e.g., psychological needs) of these cognitions and emotions related to one's organization's environmental (ir)responsibility.

https://doi.org/10.1017/jmo.2024.25 Published online by Cambridge University Press

Regarding the chosen outcomes, we decided to focus on turnover intentions, cyberslacking, and affective commitment for several reasons. First, no research has documented the implications of psychological need states in the development of turnover intentions, cyberslacking, and affective commitment. As such, this research not only contributes novel insights to the field with methodologies that make the study particularly valuable, it also has potential real-world impact of the research findings as the outcomes of the study could inform interventions or policies aimed at improving working conditions for workers so that they may have less turnover intentions and negative aspects of cyberslacking and more affective organizational commitment (AOC). Second, all three phenomena are important for various reasons; cyberslacking is common in the workplace with potentially negative consequences (e.g., Tandon et al. (2022), one primary goal of HR practices is to decrease employee turnover rate (Gould-Williams, 2004), whereas AOC can be frequent but may vary to great extent (e.g., Stazyk et al., 2011) and can be costly for organizations and employees (Hayes et al., 2006; Metin et al., 2020; Meyer & Herscovitch, 2001). Third, CSR and moral emotions regarding organization's environmental responsibility were primarily chosen as antecedents as, theoretically, basic psychological need theory postulates that environmental factors influence psychological need states (Ryan, 1995; Ryan & Deci, 2017). Indeed, research from longitudinal studies show that employees' negative perceptions of their organization (e.g., organizational dehumanization) (Lagios, Caesens, Nguyen, & Stinglhamber, 2022) as well as positive perceptions of their organization (e.g., perceived organizational support and supervisors' interpersonal style) influence their psychological need states, and not the other way around (Gillet, Fouquereau, Forest, Brunault, & Colombat, 2012). Finally, they were chosen given their importance for employees nowadays (e.g., Schaefer, Terlutter & Diehl, 2020). Indeed, sharing work values or norms with the organization fosters need fulfillment (e.g., Schreurs, van Emmerik, Van den Broeck, & Guenter, 2014). Moreover, by investigating CSR, we aim to answer the recent call for both the use of more advanced methodologies research on employee experiences of CSR and investigations of outcomes such as well-being (Onkila & Sarna, 2022). Some studies have indeed shown that CSR is associated with positive employees' behavior (e.g., environmentally friendly behavior) and attitudes toward the organization (organizational pride, identification; El Akremi et al., 2018; Fatima, Badar, Waqas, Ayub, & Haris, 2023), but the underlying mechanisms remain undocumented. As such, CSR is important as it may improve an organization's value-creation, survivability, and performance as it could advance relationships with customers, suppliers, and employees and improve reputation. CSR is both a social concept and a corporate behavior and management philosophy, that can be a means to enact societal obligations and well as a strategic investment in intangible assets (Wang et al., 2016). To reach a better understanding of these implications, while expanding the nomological network of psychological need states, our second goal was therefore to examine how employees' cognitions and emotions related to their organization's environmental (ir)responsibility associate with profile membership.

On the other hand, without information related to the outcomes of psychological need states profiles, it is impossible to assess the true desirability of these profiles. Yet, in their study, Huyghebaert-Zouaghi et al. (2022a) investigated need states profiles' associations with work motivation only. Thus, there is a gap in the literature regarding other possible consequences of these profiles, why our third goal was to investigate how profile membership relates to important organizational outcomes. The outcomes turnover intentions, cyberslacking, and lack of affective commitment can be costly for organizations and employees (Hayes et al., 2006; Metin et al., 2020; Meyer & Herscovitch, 2001), why conditions to prevent turnover intentions and cyberslacking and promote AOC should be created.

Psychological need states in the workplace

Research based on SDT has demonstrated the importance of the basic psychological needs for autonomy (feeling ownership of one's actions), competence (feeling efficient in accomplishing personally

https://doi.org/10.1017/jmo.2024.25 Published online by Cambridge University Press

important tasks), and relatedness (feeling secure and accepted in one's relationships) in boosting individuals' well-being (Ryan & Deci, 2017). Need satisfaction is the positive state that appears when the needs are fulfilled (i.e., feeling volitional, competent, and affiliated), while need frustration is a negative state where the needs are obstructed (i.e., feeling coerced, useless, and rejected). The distinctiveness of both these need states has been proven in a considerable amount of research conducted within various life contexts (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Vansteenkiste, Ryan, & Soenens, 2020), including work (e.g., Gillet et al., 2015; Huyghebaert et al., 2018a; Jungert, Gradito Dubord, Högberg, & Forest, 2022; Trépanier et al., 2015). Recent research has shown the distinctiveness of a third psychological need state (i.e., need unfulfillment) when tested alongside need satisfaction and frustration (Huyghebaert-Zouaghi et al., 2021). Need unfulfillment is defined as the negative experiential state where one feels that the psychological needs are in state of neglect (i.e., feeling uncertain, dull, and disconnected). Thus, Huyghebaert-Zouaghi et al. (2021) offered support for a 3 × 3 model of the distinct experiential states of satisfaction, frustration, and unfulfillment relating to each of the needs for autonomy, competence, and relatedness.

However, these authors examined these psychological need states from a variable-centered approach, yet it is only through the identification of different combinations (i.e., profiles) of psychological need states that their coexistence could be asserted.

Psychological need states profiles

Recently Vansteenkiste et al. (2020) called for future research to focus on need profiles to reach a better understanding of within-person combinations of psychological need states. Indeed, the person-centered approach allows to capture the true complexity of employees' psychological need states, which seldom involve a single psychological experience of *either* positive *or* negative nature (e.g., Rouse et al., 2020; Tóth-Király, Bőthe, Orosz, & Rigó, 2020). Moreover, person-centered results allow practitioners for more tailored interventions that can target several need states at the same time. Despite these important implications, only one study (Huyghebaert-Zouaghi et al., 2022a) has thus far used this approach to investigate different combinations of need satisfaction, unfulfillment, and frustration. Thus, it is even more important to verify which of the profiles identified by Huyghebaert-Zouaghi et al. (2022a), if any, are representative among other populations of workers, and which are specific to their sample.

More precisely, Huyghebaert-Zouaghi et al. (2022a) found a bifactor representation of psychological need states to be superior (i.e., one global factor and nine specific factors). Importantly, research also emphasizes that employees' global levels of need satisfaction co-exist with specific levels which explain unique variability in outcomes (Gillet, Morin, Huart, Colombat, & Fouquereau, 2020).

Huyghebaert-Zouaghi et al. (2022a) identified six profiles based on this bifactor solution: (1) *Globally Positive and Average Specific* (low levels of negative global psychological need experience and average-to-moderately low levels of specific need states), (2) *Globally Average and Mixed Specific* (moderately high levels of negative global psychological need experience, high levels of specific autonomy unfulfillment, and low levels of specific autonomy satisfaction, competence frustration, and relatedness frustration, while all other specific need states were characterized by average levels), (3) *Globally Negative and Mixed Specific* (moderately high levels of negative global psychological need experience, high levels of specific relatedness satisfaction, moderately high levels of specific competence frustration and competence unfulfillment, and moderately low levels of specific competence need satisfaction, while all other indicators were characterized by average levels), (4) *Globally Very Positive and Average Specific* (very low levels of negative global psychological need experience and average-to-moderately high or low levels of specific need states), (5) *Globally Very Positive and Mixed Specific* (very low levels of negative global psychological need experience and specific relatedness unfulfillment, low levels of specific competence unfulfillment, moderately low levels of specific autonomy unfulfillment, moderately high levels of specific competence and relatedness satisfaction, high levels of specific competence frustration, and very high levels of specific relatedness frustration, while

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specific autonomy satisfaction and autonomy frustration displayed average levels), and (6) *Globally Very Negative and Mixed Specific* (very high levels of negative global psychological need experience, high levels of specific competence satisfaction, relatedness unfulfillment, competence frustration, and relatedness frustration, low levels of specific relatedness satisfaction, and average levels of all other specific need states).

Based on this study examining need satisfaction/frustration/unfulfillment profiles (Huyghebaert-Zouaghi et al., 2022a), and on prior research on employees' need satisfaction (four profiles: Gillet, Morin, Choisay, & Fouquereau, 2019; Huyghebaert-Zouaghi, Morin, Forest, Fouquereau, & Gillet, 2022b) and need satisfaction/frustration (five profiles; Rouse et al., 2020) profiles, we expected to identify a similar (i.e., 4–6) number of profiles (Hypothesis 1a).

As to the nature of these profiles, based on prior person-centered research jointly examining need satisfaction and frustration (Rouse et al., 2020; Tóth-Király et al., 2020), and on research examining employees' need satisfaction, frustration, and unfulfillment profiles (Huyghebaert-Zouaghi et al., 2022a), we expected to identify some or all of the following profiles (Hypothesis 1b): (1) a positive profile (high positive experiential need states and low negative experiential need states), (2) a negative profile (high negative experiential need states and low positive experiential need states), (3) a very positive profile (very high positive experiential need states and very low negative experiential need states), (4) a very negative profile (very high negative experiential need states and low positive experiential need states), (5) a normative profile (close to average levels across all experiential need states), and (6) a profile characterized by mixed experiential need states (e.g., low levels of need unfulfillment coupled with high levels of need satisfaction and frustration).

Predictors

Perceptions of environmental CSR

The United Nations introduced sustainable development goals in 2015, which explicitly emphasized that work organizations should achieve these goals (United Nations, 2015). Organizations can take up this role through environmental CSR, which covers an organization's commitment to maximize long-term environmental well-being through business practices, policies, and resources (Du, Bhattacharya, & Sen, 2011). CSR considers the triple bottom line of organizations' economic, social, and environmental performance (El Akremi et al., 2018), and the focus of the current study is on perceptions of environmental CSR, in line with the rationale outlined on page 4–5 regarding the selection of variables. Interestingly, according to Rupp, Ganapathi, Aguilera, and Williams (2006), employees perceive, evaluate, and react to their organization's CSR activities. Indeed, prior research has shown the positive influence of environmental CSR on performance (El Akremi et al., 2018; Tsai, Tsang, & Cheng, 2012), organizational commitment (Kim, Kim, Han, Jackson, & Ployhart, 2017), and organizational attractiveness for job seekers (El Akremi et al., 2018; Rupp, Shao, Thornton, & Skarlicki, 2013). Perceptions of CSR have moreover been linked to employees' organizational identification and job satisfaction (El Akremi et al., 2018). El Akremi et al. (2018) suggest that these positive implications of CSR owe to how rewarding it is for employees' self-image to belong to a socially responsible organization. More precisely, employees take pride in belonging to a fair and ethical organization, that creates shared value, which strengthens their self-worth and results in a positive assessment of this fulfilling work experience.

Moreover, recent research has shown that organizational CSR may directly influence the fulfillment of employees' basic psychological needs. Indeed, when employees feel that their organization is committed to maximize long-term environmental well-being (Kim, Rhou, Topcuoglu, & Kim, 2020), they are likely to experience a sense of understanding and feel respected and valued by their organization, since it values and possibly shares some important and normative welfare principles (Gherman, Arhiri, Holman, & Soponaru, 2022). A recent study supported this assumption by showing perceptions of CSR to have a positive effect on employees' need satisfaction (Kim et al., 2020). Yet, it should be noted that research has never explored the relation between perceptions of CSR and need

https://doi.org/10.1017/jmo.2024.25 Published online by Cambridge University Press

frustration or need unfulfillment, thus leaving unknown whether employees' perceptions of their organization's environmental CSR could prevent negative experiential need states. More generally, most studies on CSR have investigated its positive consequences (e.g., El Akremi et al., 2018; Tsai et al., 2012), leaving as uncharted territory whether CSR could help reduce negative work outcomes. Our study could therefore contribute to extend knowledge on this issue.

Interestingly, prior studies found CSR to negatively relate to burnout and turnover intentions (Lin & Liu, 2017), which are known consequences of need frustration (Huyghebaert et al., 2018b). A recent study also found CSR to negatively relate to job boredom (Ohana, Murtaza, Al-Shatti, & Chi, 2023), which was documented to stem from need unfulfillment (Huyghebaert-Zouaghi et al., 2021). As such, prior variable-centered findings suggest that CSR could negatively relate to negative experiential need states. Indeed, when they believe that they belong to an ethical and value-creating organization, employees are less likely to experience feelings of coercion or uncertainty, uselessness, or dullness, and reject or disconnection. Based on prior variable-centered results, we could thus expect perceptions of environmental CSR to predict a higher likelihood of membership in the profile(s) dominated by need satisfaction and a lower likelihood of membership in the profile(s) dominated by need frustration and/or unfulfillment. Moreover, based on a prior person-centered examination of psychological need states (Huyghebaert-Zouaghi et al., 2022a), we can expect positive work experiences such as perceptions of environmental CSR to predict a higher likelihood of membership in the profile(s) dominated by need satisfaction than in the mixed or average profile(s). Indeed, average or mixed profiles imply, alongside need satisfaction, the presence of need frustration and/or unfulfillment, which are unlikely to result from perceiving one's organization to be ethical and socially responsible (Hypothesis 2a).

Employees' perceptions of environmental CSR focus on the cognitive side (Peloza & Shang, 2011) of employees' reactions to their organization's environmental responsibility. However, there is also an emotional side to these reactions. Indeed, employees' moral emotions regarding their organization's environmental (ir)responsibility may help them assess their organization's actions when it comes to promoting sustainable development. In other words, perceptions of CSR and moral emotions related to the environment are separate phenomena in their nature and valence but share a common source in the organization's environmental (ir)responsibility. They could complement one another in explaining employees' psychological experiences (i.e., need profiles) at work.

Negative moral emotions

Moral emotions may be defined as emotions '… linked to the interests or welfare of society as a whole or at least of persons other than the judge or agent' (Haidt, 2003, p. 853). Moral emotions help to support the moral standards recognized by society (Haidt, 2003) and help individuals to assess their own and others' actions when it comes to promoting or undermining a well-functioning world. Moral emotions stem from biological hardwiring (Bloom, 2013), past experiences (Ekman, 1992), and social learning (e.g., Tangney et al., 2007). In the literature, two often-discussed categories of negative moral emotions are other-condemning emotions and self-conscious emotions (see Haidt, 2003). Employees experience other-condemning moral emotions in response to *other people's* moral transgressions, which can take the form of anger. Anger captures feelings of resentment that arise because someone has transgressed a moral standard without justification (Haidt, 2003). Employees can thus experience other-condemning moral emotions toward their organization when they feel that the latter does not play its role in preserving the environment. Conversely, individuals experience self-conscious moral emotions when *they* violate moral standards (Leary, 2002). Employees can thus feel that they contribute to violating moral standards when working for and being a part of an organization that does not live up to eco-friendly standards. They may then experience shame and/or guilt (Greenbaum et al., 2020).

Although there has been a rise in research on moral emotions in organizations, this research field is understudied in terms of explaining their consequences for employees' work-related experiences

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(Greenbaum et al., 2020). More precisely, no study has explored the relations between employees' work-related moral emotions and their need satisfaction, frustration, and unfulfillment. Yet, prior research has shown that when employees are faced with emotionally challenging work environments, they tend to experience more need frustration and less need satisfaction (e.g., Huyghebaert et al., 2018a). Similarly, when experiencing negative moral emotions regarding their organization's environmental (ir)responsibility, employees may feel inauthentic as they work for an organization that does not match their environmental moral standards, which could turn into a deeper sense that they cannot express their true self in their work environment (e.g., need frustration and unfulfillment; Grandey & Gabriel, 2015). For instance, Gherman et al. (2022) showed that nurses' psychological needs were more frustrated and less satisfied when facing organizational events that were contradictory with their moral convictions. These results are in line with SDT, which posits need satisfaction to occur in environments that are in line with individuals' intrinsic values, while need frustration occurs in environments that are not congruent with, or even obstruct, these values (Ryan & Deci, 2017).

However, no research has examined how employees' moral or affective experiences in the workplace relate to need unfulfillment. Yet, need unfulfillment was found to be positively associated with state boredom (Huyghebaert-Zouaghi et al., 2021), which carries moral significance not only because it stems from the perception of lack of meaning and thus involves a moral judgment as to how meaningful the situation is, but also because it stands as an obstacle to flourishing (Elpidorou, 2017). Thus, we could expect negative moral judgments such as negative moral emotions to elicit more need unfulfillment. Consistent with the above rationale, a prior person-centered examination of psychological need states (Huyghebaert-Zouaghi et al., 2022a) showed that negative work-related experiences, such as negative moral emotions, predicted a lower likelihood of membership in the profile(s) dominated by need satisfaction and a higher likelihood of membership in the profile(s) dominated by (very) negative need states experiences (need frustration and unfulfillment). In sum, we expect negative moral emotions related to one's organization's environmental (ir)responsibility to predict a higher likelihood of membership in the predominantly negative profile(s) and a lower likelihood of membership in the profile(s) dominated by need satisfaction (Hypothesis 2b).

Outcomes

Affective organizational commitment

AOC refers to how employees attach to, identify with, and get involved in the organization (Meyer & Herscovitch, 2001). Research has found that AOC influences important work behaviors like job involvement or absenteeism (Mercurio, 2015; Meyer & Herscovitch, 2001). It may also have ramifications for behaviors such as creativeness and innovativeness (Neininger, Lehmann-Willenbrock, Kauffeld, & Henschel, 2010). Interestingly, previous research (e.g., Meyer & Maltin, 2010) has shown that psychological need states were associated with affective commitment. Indeed, according to SDT (Ryan & Deci, 2017), need satisfaction promotes positive job attitudes such as AOC. For instance, Greguras and Diefendorff (2009) found that need satisfaction positively related to AOC and more recently, Gillet et al. (2015) found that need satisfaction positively explained AOC while need frustration negatively explained AOC.

Meyer and Maltin (2010) propose that employees' desire to belong and maintain membership in their organization (i.e., AOC) stems from the perception that their work allows them to behave in line with their intrinsic interests or values, which also underpins autonomous motivational processes such as need satisfaction (Huyghebaert-Zouaghi et al., 2021). Indeed, according to SDT, individuals experience need satisfaction when they can express their true self (Ryan & Deci, 2017). Conversely, when they feel that their true self is oppressed within their organization (need frustration) or when they feel unable to make sense of, or value, the organizational context (need unfulfillment), they may struggle to identify to their organization and to develop an affective bond to it (AOC). Yet, these findings are based on variable-centered results and ignore the fact that need satisfaction, frustration, and

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unfulfillment can combine in the work lives of employees, leaving unknown their joint implications for AOC. For instance, prior research has failed to address which configurations would be most detrimental for AOC: Would simultaneously high levels of need frustration and unfulfillment carry the worst consequences or would a profile dominated by one or the other of these negative experiences be more detrimental? A prior person-centered investigation of psychological need states (Huyghebaert-Zouaghi et al., 2022a) showed that identified motivation, which is conceptually very closely related to AOC as they both reflect employees' genuine involvement in and identification with the values of their work/organization, was the lowest in a profile dominated by specific need unfulfillment and, equally, in a profile dominated by both specific need unfulfillment and need specific frustration. More studies are thus needed to disentangle how such need states profiles would affect AOC. In line with the above-mentioned prior variable-centered findings, we could still expect that members of the positive profile(s) would show higher levels of AOC, while member of the predominantly negative profile(s) would have the lowest levels of AOC (Hypothesis 3a).

Turnover intentions

Turnover is understood as 'the termination of an individual's employment with a given company' (Tett & Meyer, 1993, p. 262) and can be either voluntary or involuntary. A high turnover rate is not only associated with extra costs (e.g., Hayes et al., 2006), but also with negative effects on incumbent workers attitudes (e.g., Kuhn & Yu, 2021). Through its effects on the organizational climate as well as the time and resources it demands, a high turnover rate weakens devotion of full effort into the goals and tasks of the organization (Kuhn & Yu, 2021). Regarding voluntary turnover on the part of the employee, the decision to quit has been shown to be strongly preceded by a conscious and deliberate willfulness to leave the organization, referred to as turnover intentions (Tett & Meyer, 1993).

Turnover intentions have been negatively associated with need satisfaction (Trépanier et al., 2015; Van den Broeck, Ferris, Chang, & Rosen, 2016) while need frustration was positively related to turnover intentions (e.g., Gherman et al., 2022; Huyghebaert et al., 2018b; Olafsen, Halvari, & Frølund, 2021). Indeed, when the professional environment is experienced as frustrating or unsatisfying, employees might disengage and consider other job opportunities that could better fulfill their psychological needs. Yet, prior studies failed to address the role of need unfulfillment, and its combinations with need satisfaction and frustration, in the prediction of turnover intentions. One could wonder whether turnover intentions are more likely in cases of high need frustration or of high need unfulfillment, or of their combination. A prior person-centered examination of psychological need states suggests the latter to be most likely to fuel turnover intentions (Huyghebaert-Zouaghi et al., 2022a) as it showed that employees were most likely to engage in their work to avoid losing their job or other material losses (external-material regulation) when they experienced simultaneously high levels of need frustration and unfulfillment. This result suggests that, if they had more favorable job alternatives, employees facing simultaneously high levels of need frustration and unfulfillment might consider leaving their job (Maertz & Campion, 2004). As such, need frustration and unfulfillment may have additive effects and result in employees wanting to leave their job to protect their integrity (need frustration) and seek more meaningful work experiences (need unfulfillment). In sum, person-centered analyses should help identify at-risk profiles regarding turnover intentions. Based on the above-mentioned prior variable-centered research, we can at least expect the lowest levels of turnover intentions to be found in the predominantly positive profile, while the highest levels will be found for members of the predominantly negative profile (Hypothesis 3b).

Cyberslacking

Cyberslacking refers to minor (e.g., browsing, emailing, shopping) and major (e.g., blogging, gambling, surfing adult websites) personal activities that an employee voluntarily undertakes during work

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hours (Blanchard & Henle, 2008). Since cyberslacking is a widespread phenomenon, it has raised substantial concerns about its influence on employee performance (Askew et al., 2014). To prevent cyberslacking and its detrimental consequences, scholars have thus investigated its antecedents, although this research area still needs to be further explored. For instance, work engagement was found to negatively mediate the relationship between organizational trust and cyberslacking, indicating that organizational trust can reduce the occurrence of cyberslacking via work engagement (Oosthuizen, Rabie, & De Beer, 2018). However, no research has documented the implications of psychological need states in the development of cyberslacking. Yet, recent findings from research conducted in education settings showed the importance of psychological need satisfaction and frustration in respectively negatively and positively predicting procrastination (Oram & Rogers, 2022).

Moreover, recent person-centered findings showed that the predominantly negative need states profiles were related to high levels of amotivation (Huyghebaert-Zouaghi et al., 2022a), which shares conceptual similarities with cyberslacking, as they both reflect a lack of motivation to engage in one's work and both imply that employees do not see the point of putting effort into work. As such, we could similarly expect to find the highest levels of cyberslacking among employees of the predominantly negative need states profile(s). Indeed, employees may engage in cyberslacking as a form of retaliation toward a frustrating and/or neglecting work environment, to reciprocate feelings of being unfairly treated (Venkatesh, Cheung, Davis, & Lee, 2023). Employees may also engage in cyberslacking to restore autonomy (i.e., deciding to browse the internet instead of doing one's work), mastery (e.g., engaging in an online game they feel competent at), and connection with others (e.g., using social network or texting family and friends). In sum, cyberslacking should be a relevant response when employees feel that their needs are neglected and frustrated by the organization. A person-centered analysis could thus be a first step to identify the relative relevance of the three psychological needs states but also to identify at-risk profiles regarding cyberslacking. Thus, we can expect to find the highest levels of cyberslacking among members of the predominantly negative profile(s) (Hypothesis 3c).

Method

Participants and procedure

The recruited participants had to be employed by an organization and to work in France. They were recruited by undergraduate students through network and snowball sampling procedures and were not compensated for their participation. Prior to data collection, potential participants received an email clarifying the general goal of the research and assuring them of the voluntary and anonymous nature of their participation. They were invited to provide a written informed consent. A total of 525 French employees (M_{age} = 35.60 years; SD = 12.27; 56.80% women) completed the online survey. Most participants worked full-time (80.20%) for an average of 36.07 weekly hours (SD = 9.23). We aimed to include a diverse range of occupational groups, however, most participants (87.8%) worked in the service industry (market services: 35.8%; nonmarket services: 52.0%). Participants had been working for their current organization for an average of 8.51 years (SD = 9.23). Finally, participants were highly concerned by environmental issues (M = 7.45; SD = 1.94 on a scale from 1 – *not concerned at all* to 10 – *very concerned*).

Measures

Environmental CSR was measured with seven items (α = .92; e.g., 'Our company takes action to reduce pollution related to its activities (e.g., choice of materials, eco-design, and dematerialization)') developed by El Akremi et al. (2018). Participants reported how much they agreed with each statement on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

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Negative moral emotions related to organization's environmental (ir)responsibility were measured with eight items ($\alpha = .94$; e.g., 'I get sad because of how my organization deals with the climate crisis') with a scale that was adapted from Thornberg, Pozzoli, Gini, and Jungert (2015). Participants indicated their level of agreement with each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Psychological need states were measured with the validated French version of the Psychological Need States at Work Scale (Huyghebaert-Zouaghi et al., 2021). Before completing this 37-item scale, workers were asked to consider their general experience in their current job to indicate the extent to which they agreed with each statement (1 – *strongly disagree* to 7 – *strongly agree*). Need satisfaction was measured by three items for autonomy (e.g., 'I have a say in how things are done'; $\alpha = .87$), three for competence (e.g., 'I feel that I am capable'; $\alpha = .81$), and six for relatedness (e.g., 'I feel cared for'; $\alpha = .92$). Need frustration was assessed via four items for autonomy (e.g., 'I feel forced to follow decisions about my work'; $\alpha = .82$), four for competence (e.g., 'I feel like a failure'; $\alpha = .90$), and five for relatedness (e.g., 'I feel excluded'; $\alpha = .90$). Need unfulfillment was measured through four items for autonomy (e.g., 'I am confused as to when I can make decisions'; $\alpha = .82$), three for competence (e.g., 'I feel like I have improved less than I would have liked to'; $\alpha = .68$), and five for relatedness (e.g., 'I feel I don't quite fit in with others'; $\alpha = .82$).

AOC was measured with three items ($\alpha = .86$; e.g., 'I am proud to say that I work for my organization') developed by Perreira et al. (2018). Participants indicated their level of agreement with each statement on a scale from 1 (*totally disagree*) to 5 (*totally agree*).

Cyberslacking was measured with four items ($\alpha = .80$; e.g., 'I spend more than half an hour on social network sites (Facebook, Instagram, Twitter, etc.) per day for leisure purposes during working hours') developed by Metin et al. (2020). Participants were asked to report how frequently they engaged in each behavior on a scale from 1 (*never*) to 7 (*always*).

Turnover intentions were measured with three items ($\alpha = .89$; e.g., 'How often do you think about quitting your current organization?') developed by Jaros (1997). Each statement was rated on a scale from 1 (*never*) to 5 (*always*).

Analyses

Preliminary analyses

The psychometric properties of all multi-item measures used in this research were verified as part of preliminary factor analyses. Details on these analyses (factor structure, composite reliability, and correlations) are reported in the Online Supplements (Tables S1–S7). The subsequent main analyses relied on factor scores taken from these preliminary analyses (Morin, 2016) and estimated in standardized units ($SD = 1$; $M = 0$; for further information on the benefits of using factor scores, see Morin, 2016).

Latent profile analyses

Analyses were conducted using the maximum likelihood robust estimator implemented in Mplus 8.6 (Muthén & Muthén, 2021). There were no missing responses given the way the survey was set up. We chose latent profile analysis (LPA) because of its added value relative to cluster analyses; LPA permits more flexible model specification than cluster analysis and LPA fit indexes allow different models to be compared and decisions on number of underlying classes to be made (Marsh et al., 2009).

Model estimation

LPA solutions including one to eight profiles were first estimated using all need states as indicators, while allowing the means and variances of these indicators to be freely estimated (Morin & Litalien, 2019). LPA models are designed to identify a finite set of latent subpopulations (profiles) of participants characterized by distinct configurations on a set of indicators, while allowing for within profile

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variability on all indicators (McLachlan & Peel, 2000). Each participant is assigned a probability of membership in each of the latent profiles, which provides a way to assess the LPA model while controlling for classification errors.

Model comparison and selection

We examined how many profiles to retain while relying on a consideration of whether the profiles themselves were meaningful, aligned with theory, and statistically adequate (Morin, 2016). Statistical indicators (McLachlan & Peel, 2000) were also consulted. Specifically, statistical research has shown that lower values on the Bayesian information criterion, consistent Akaïke information criterion, sample-size adjusted Bayesian information criterion, and statistically significant *p*-values on the bootstrap likelihood ratio test indicate better fitting models and are efficient at helping to identify the number of latent profiles (e.g., Diallo, Morin, & Lu, 2016, 2017). Yet, the Akaïke information criterion and the adjusted Lo, Mendell, and Rubin's (2001) likelihood ratio test should not be used for purposes of model comparison and selection (e.g., Diallo et al., 2016, 2017) but are reported for purposes of transparency. Because these tests all suffer from strong sample size dependency (Marsh et al., 2009), they often fail to converge on a specific number of profiles. Thus, we also relied on a graphical display of these indicators (i.e., elbow plot), in which the observation of a plateau in the decrease in the value of these indicators helps to pinpoint the optimal solution (Morin et al., 2011). Finally, we estimated the classification accuracy (from 0 to 1) by looking at the entropy value, which, however, should not be used to select the optimal number of profiles (Lubke & Muthén, 2007).

The start values from the final solution were then used (rather than using random starts) to ensure that this solution would be replicated in all remaining analyses involving predictors and outcomes (Morin & Litalien, 2019).

Predictors and outcomes of profile membership

Predictors (environmental CSR and negative moral emotions related to organization's environmental (ir)responsibility) and demographic controls (gender, age, environmental concerns, organizational tenure, and employment type) were first incorporated to the final LPA solution, using a multinomial logistic regression link function. We decided to include those demographic variables to ensure that our findings are not skewed by variations in demographic characteristics. Environmental concern was also important as we could expect it to influence the sensitiveness to the organization's environmental behavior and environmental CSR perceptions. Outcomes of profile membership (AOC, cyberslacking, and turnover intentions) were then incorporated to the final LPA solution. Profiles were contrasted in relation to levels of outcome variables using the Auxiliary (DCON) approach (Asparouhov & Muthén, 2014).

Results

Preliminary measurement models

Only two solutions were able to achieve an acceptable level of fit to the data: a nine-factor exploratory structural equation modeling (ESEM) model (autonomy satisfaction, relatedness satisfaction, competence satisfaction, autonomy frustration, relatedness frustration, competence frustration, autonomy unfulfillment, relatedness unfulfillment, and competence unfulfillment), like the solution retained by Huyghebaert-Zouaghi et al. (2022), and a bifactor ESEM model including nine S-factors (autonomy satisfaction, relatedness satisfaction, competence satisfaction, autonomy frustration, relatedness frustration, competence frustration, autonomy unfulfillment, relatedness unfulfillment, and competence unfulfillment) and one G-factor (global psychological need experience), like the solution retained by Huyghebaert-Zouaghi et al. (2022a). Although the latter had a well-defined G-factor, not only did it display decreased levels of fit to the data (relative to the former), but it also resulted in several weakly defined S-factors (see Online Supplements for more detail). Contrastingly, the ESEM solution with

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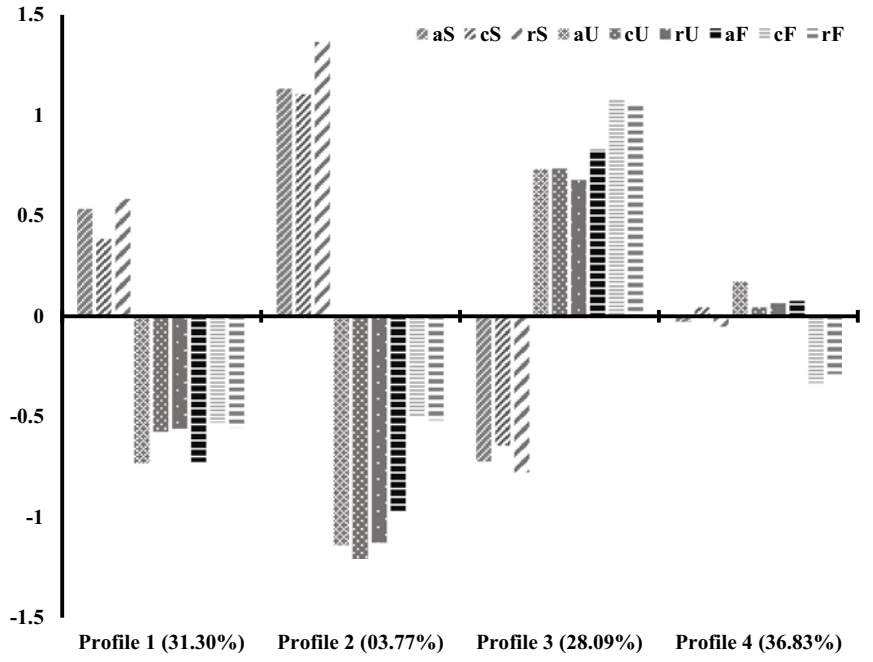

Figure 1. Final four-profile solution.
Note. A = autonomy; c = competence; r = relatedness; S = satisfaction; F = frustration; U = unfulfillment; Profile 1: *Positive Need States Experience*; Profile 2: *Very Positive Need States Experience*; Profile 3: *Negative Need States Experience*; Profile 4: *Moderate and Mixed Need States Experience*.

nine factors displayed the best fit to the data and resulted in well-defined factors where all items significantly loaded on their a priori factor (with all positive significant cross-loadings being substantially smaller than the target loadings). These results thus supported the adequacy of the ESEM solution with nine factors, which was thus retained, as in Huyghebaert-Zouaghi et al. (2020).

Latent profile solutions

Fit indices resulting from the different LPA solutions are presented in Table S5 (see also their graphical illustration via elbow plots in Figure S1 of the Online Supplements). The Bayesian information criterion and the consistent Akaïke information criterion reached their lowest point in the six-profile solution, and the adjusted Bayesian information criterion kept on decreasing. Examination of the elbow plot was more informative, suggesting a plateau in the decrease of the value of most information criteria occurring after the third- or four-profile solutions. Solutions including three, four, and five profiles were therefore more thoroughly inspected. This examination showed that each new profile represented a meaningful addition up to four profiles, whereas the fifth profile only revealed a non-informative division of one already identified profile into two very similar ones. Therefore, the four-profile solution was selected, and is illustrated in Fig. 1. Fit indices from this final solution are presented in Table 1 and its parameter estimates are reported in the online supplements (Table S6). As shown in Table S7, this solution displayed a high classification accuracy (ranging from 94.0% to 98.2%), which is corroborated by a high entropy value (.919).

Profile 1 displayed high levels of satisfaction of all three needs and low levels of unfulfillment and frustration of all three needs. This *Positive Need States Experience* profile characterized 31.30% of the participants. Members of Profile 2 reported very high levels of satisfaction of all three needs and low to very low levels of unfulfillment and frustration of all three needs. This *Very Positive Need States*

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Table 1. Fit results from the final models

	LL	#fp	SC	AIC	CAIC	BIC	ABIC	Entropy
Final four-profile model	−4532.889	75	1.306	9215.779	9610.533	9535.533	9297.465	.919
Predictive model: Predictors	−4420.975	96	1.135	9033.950	9537.948	9441.948	9137.225	.918
Predictive model: Outcomes	−4532.890	3	1.000	9071.779	9087.569	9084.569	9075.047	.919

Note. LL = log-likelihood; #fp = number of free parameters; SC = scaling correction factor; AIC = Akaïke information criterion; BIC = Bayesian information criterion; CAIC = consistent AIC; ABIC = sample-size adjusted BIC.

Experience profile characterized 3.77% of the participants. Profile 3 displayed low levels of satisfaction of all three needs, and high to very high levels of unfulfillment and frustration of all three needs. This *Negative Need States Experience* profile characterized 28.09% of the participants. Members of Profile 4 reported average levels of satisfaction of all three needs and of autonomy frustration, average levels of competence and relatedness unfulfillment, moderately high levels of autonomy unfulfillment, and moderately low levels of competence and relatedness frustration. This *Moderate and Mixed Need States Experience* profile characterized 36.83% of the participants.

Predictors of profile membership

Fit indices from the predictive model are presented in Table 1 and detailed results are reported in Table 2. They revealed that most of the demographics (i.e., age, gender, environmental concerns, organizational tenure) were unrelated to profile membership, except for employment type. Indeed, employees working part-time were less likely to be members of the *Moderate and Mixed Need States Experience* profile (4), relative to Profiles 1 (*Positive Need States Experience*), 2 (*Very Positive Need States Experience*), and 3 (*Negative Need States Experience*). Employees working part-time were also more likely to be members of Profile 2 (*Very Positive Need States Experience*), relative to Profiles 1 (*Positive Need States Experience*) and 3 (*Negative Need States Experience*).

Turning our attention to the predictors, environmental CSR perceptions were found to be unrelated to profile membership, thus contradicting Hypothesis 2a. However, negative moral emotions related to organization's environmental (ir)responsibility predicted a higher likelihood of membership into Profile 3 (*Negative Need States Experience*) relative to Profiles 1 (*Positive Need States Experience*), 2 (*Very Positive Need States Experience*), and 4 (*Moderate and Mixed Need States* Experience). Negative moral emotions related to organization's environmental (ir)responsibility also predicted a higher likelihood of membership into the *Moderate and Mixed Need States Experience* profile (4), relative to Profiles 1 (*Positive Need States Experience*) and 2 (*Very Positive Need States Experience*), thus confirming Hypothesis 2b.

Outcomes of profile membership

Fit indices from this model are presented in Table 1 and the relations between profile membership and outcome variables are presented in Table 3. Results showed that the highest levels of AOC were observed in Profile 2 (*Very Positive Need States Experience*), followed by Profile 1 (*Positive Need States Experience*), which was itself followed by Profile 4 (*Moderate and Mixed Need States Experience*), and then by Profile 3 (*Negative Need States Experience*), thus confirming Hypothesis 3a. The opposite pattern was found for turnover intentions, with the highest levels observed in Profile 3 (*Negative Need States Experience*), followed by Profile 4 (*Moderate and Mixed Need States Experience*), which was itself followed by Profiles 1 (*Positive Need States Experience*) and 2 (*Very Positive Need States Experience*), which did not differ from one another. Hypothesis 3b was thus confirmed.

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Table 2. Results from multinomial logistic regressions for the effects of the predictors and demographic variables on profile membership

	Profile 1 vs. 4		Profile 2 vs. 4		Profile 3 vs. 4	
Predictors	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
Corporate social responsibility	.039 (.154)	1.039	−.081 (.408)	.923	−.132 (.150)	.876
Negative moral emotions	−.661 (.159)**	.516	−1.082 (.395)**	.339	.310 (.150)*	1.364
Age	.075 (.194)	1.078	.198 (.426)	1.219	−.019 (.190)	.982
Gender	.186 (.266)	1.204	−.059 (516)	.943	.164 (.252)	1.178
Environmental concerns	.042 (.066)	1.043	.172 (.175)	1.188	−.005 (.064)	.995
Organizational tenure	.227 (.195)	1.255	.318 (.408)	1.375	.290 (.206)	1.336
Employment type	.891 (.363)*	2.438	1.794 (.605)**	6.011	.748 (.343)*	2.113
	Profile 1 vs. 3		Profile 2 vs. 3		Profile 1 vs. 2	
Predictors	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
Corporate social responsibility	.177 (.153)	1.194	−.043 (.385)	.958	.220 (.379)	.786
Negative moral emotions	−.966 (.162)**	.381	−1.441 (.420)**	.237	.475 (.417)	1.258
Age	.081 (.198)	1.085	.322 (.388)	1.380	−.241 (.378)	.888
Gender	.016 (.257)	1.016	−.213 (.528)	.808	.229 (.513)	1.042
Environmental concerns	.050 (.066)	1.051	.169 (.187)	1.184	−.119 (.184)	.333
Organizational tenure	−.046 (.186)	.955	−.087 (.367)	.916	.042 (.358)	1.246
Employment type	.118 (.317)	1.125	1.216 (.514)*	3.373	−1.098 (.498)*	1.607

Note. SE = standard error of the coefficient; OR = odds ratio; corporate social responsibility and negative moral emotions are estimated from factor scores with a standard deviation of 1 and a mean of 0; age, tenure, and environmental concerns were standardized prior to the analyses; gender: 1 for women and 2 for men; employment type: 1 for full-time and 2 for part-time; the coefficients and OR reflect the effects of the predictors on the likelihood of membership into the first listed profile relative to the second listed profile; Profile 1: *Positive Need States Experience*; Profile 2: *Very Positive Need States Experience*; Profile 3: *Negative Need States Experience*; Profile 4: *Moderate and Mixed Need States Experience.* *$p < .05$; **$p < .01$.

Table 3. Associations between profile membership and the outcomes

	Profile 1 *M* [CI]	Profile 2 *M* [CI]	Profile 3 *M* [CI]	Profile 4 *M* [CI]	Summary of statistically significant differences
Affective organizational commitment	.582 [.486; .678]	.902 [.728; 1.076]	−.683 [−.830; −.536]	−.060 [−.119; −.001]	3 < 4 < 1 < 2
Cyberslacking	.255 [.116; .394]	.239 [−.163; .641]	−.303 [−.460; −.146]	−.009 [−.142; 124]	1 = 2; 3 < 2 = 4; 3 < 4 < 1
Turnover intentions	−.427 [−.552; −.302]	−.662 [−.970; −.254]	.447 [.290; .604]	.089 [−.044; .222]	1 = 2 < 4 < 3

Note. M = mean; CI = 95% confidence interval; affective organizational commitment, cyberslacking, and turnover intentions are estimated from factor scores with a mean of 0 and a standard deviation of 1; Profile 1: *Positive Need States Experience*; Profile 2: *Very Positive Need States Experience*; Profile 3: *Negative Need States Experience*; Profile 4: *Moderate and Mixed Need States Experience*.

Finally, the highest levels of cyberslacking were found in Profile 1 (*Positive Need States Experience*), followed by Profile 4 (*Moderate and Mixed Need States Experience*), which was itself followed by Profile 3 (*Negative Need States Experience*). Profile 3 also displayed significantly lower levels of cyberslacking than Profile 2 (*Very Positive Need States Experience*) which did not differ from Profile 4 (*Moderate and Mixed Need States Experience*). Finally, Profiles 1 (*Positive Need States Experience*) and 2 (*Very Positive Need States Experience*) did not differ from one another in terms of cyberslacking levels. These findings contradicted Hypothesis 3c.

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Discussion

The present study aimed to offer a test of generalizability of employees' psychological need states profiles (Huyghebaert-Zouaghi et al., 2022a) and to examine their contextual predictors and work-related outcomes.

Theoretical contributions

Our results add to the literature in numerous ways. First, we confirm the distinctiveness of need unfulfillment by showing this need state to coexist with need satisfaction and frustration in employees' need states profiles, hence highlighting the significance of this need state (Huyghebaert-Zouaghi et al., 2021). Second, by examining the predictive value of perceptions of environmental CSR and moral emotions related to the organization's environmental (ir)responsibility on profile membership, we provide a new perspective for SDT and organizational research. Finally, our findings show that these need states combinations not only predict motivational outcomes (Huyghebaert-Zouaghi et al., 2022), but are also associated with employees' attitudes and behaviors (AOC, cyberslacking, and turnover intentions). We further discuss these contributions in the following sections.

Psychological need states profiles

In line with our expectations, results revealed the presence of four psychological need states profiles. As hypothesized, we identified two predominantly positive profiles (Profile 1: *Positive Need States Experience* and Profile 2: *Very Positive Need States Experience*) and a predominantly negative profile (Profile 3: *Negative Need States Experience*). These results are important as they show the generalizability of these profiles and suggest that they can be expected to systematically appear in various organizational settings, when accounting for both positive and negative need states experiences (e.g., Huyghebaert-Zouaghi et al., 2022a; Rouse et al., 2020). However, unlike Huyghebaert-Zouaghi et al. (2022a), we only identified one predominantly negative profile, thus suggesting that the identification of a very negative profile could be due to Huyghebaert-Zouaghi et al.'s reliance on a bifactor representation of psychological need states (one global factor and nine specific factors). More research relying on an ESEM representation of psychological need states is needed to confirm the identification of only one predominantly negative profile.

Finally, we identified a moderate profile (Profile 4: *Moderate and Mixed Need States Experience*) characterized by moderately high levels of autonomy unfulfillment and moderately low levels of competence and relatedness frustration. Interestingly, this profile is in line with Huyghebaert-Zouaghi et al.'s (2022a) identification of a profile similarly characterized by the salience of high levels of autonomy unfulfillment (i.e., *Globally Average and Mixed Specific*). This result thus corroborates the importance of considering this distinct need experience (i.e., need unfulfillment states), as it reflects a reality that may be predominant in the professional life of most individuals (over 36% in this sample). In sum, our results (together with Huyghebaert-Zouaghi et al.'s 2022) provide evidence that the four identified psychological need states profiles reflect a phenomenon that can be relied upon to guide interventions (Morin, 2016).

Unexpectedly, we did not identify the hypothesized normative profile, which contrasts with prior person-centered research on psychological need satisfaction and frustration in the workplace (Gillet et al., 2019; Huyghebaert-Zouaghi et al., 2022b; Rouse et al., 2020) but concurs with prior research encompassing need satisfaction, frustration, and unfulfillment (Huyghebaert-Zouaghi et al., 2022a). It is thus possible that the identification of this normative profile in prior research on need satisfaction and frustration was simply the reflection of something missing (i.e., need unfulfillment). More person-centered research based on the 3 × 3 conceptualization of need states (Huyghebaert-Zouaghi et al., 2021) is needed to confirm this suggestion.

More generally, the identified profiles showed that the various psychological need states are distinctive and not mutually exclusive psychological experiences that may co-occur in the work lives of some people. For example, members of the *Negative Need States Experience* profile displayed high

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levels of both need frustration and need unfulfillment. While it is conceivable that these distinct need experiences stem from different aspects of the job, it is also possible that workers fluctuate between these different specific need states. On one hand, employees could have a general perception of ambiguity, dullness, and disconnection (need unfulfillment) in their job because of their supervisor's behaviors (e.g., Huyghebaert-Zouaghi et al., 2022a) while also feeling coerced, useless, and rejected (need frustration) because of emotional display rules (e.g., Huyghebaert et al., 2018a). Alternatively, workers could fluctuate between these different need states daily as their momentary work experiences go by (e.g., Hancox, Quested, Ntoumanis, & Duda, 2017). These two possibilities are not mutually exclusive and more research into the predictors, the temporal dynamics, and the inter- and intraindividual variations of psychological need states is needed to test these possibilities.

Predictors of psychological need states profiles

Contrary to our expectations, perceptions of environmental CSR were unrelated to membership in any profile, thus rejecting Hypothesis 2a. In other words, perceptions of one's organization's environmental CSR do not seem to play a role in predicting psychological need states profile membership. Although unexpected, this result could be explained by the cognitive nature of the environmental CSR perceptions' scale and by the fact that we did not account for moral reflectiveness. Indeed, Afsar and Umrani (2020) showed that the effects of environmental CSR are explained by moral reflectiveness. People could thus note that their company has a weak environmental social responsibility without considering it as a moral violation, or without feeling responsible for it. However, when employees feel morally involved, those perceptions should elicit stronger reactions and then impair psychological need states experience.

In line with this interpretation and with our expectations, negative moral emotions regarding one's organization's environmental (ir)responsibility did predict profile membership. More precisely, negative moral emotions regarding one's organization's environmental (ir)responsibility predicted a higher likelihood of membership in the *Negative Need States Experience* profile compared to the other profiles, thus providing support for Hypothesis 2b. In other words, workers who experienced moral emotions such as shame and guilt because of how their organization deals with environmental issues were more likely to be members of the profile that was the most detrimental in terms of psychological need states (low levels of satisfaction of all three needs, and high to very high levels of unfulfillment and frustration of all three needs), relative to all other profiles. Moreover, negative moral emotions regarding one's organization's environmental (ir)responsibility predicted a higher likelihood of membership in the *Average and Mixed* profile, relative to both the positive need states profiles (i.e., *Positive Need States Experience* and *Very Positive Need States Experience* profiles). Altogether, these results show that when employees experience negative moral emotions such as anger, shame, and guilt when they perceive that their organization violates moral standards by having little or no sense of environmental issues, it increases their likelihood of experiencing negative need states dominated by the frustration and/or the unfulfillment of their basic psychological needs and decreases their likelihood of experiencing need satisfaction.

Theoretically, these results fill a gap in the literature in several ways. In a context where the consequences of moral emotions in organizations are understudied (Greenbaum et al., 2020), we now provide important information by showing that negative moral emotions in organizations are related to negative psychological need states experiences, which are essential in predicting individual and organizational outcomes (e.g., Huyghebaert et al., 2018b; Trépanier et al., 2015). Our results also contribute to SDT (Ryan & Deci, 2017) by showing that individuals' psychological needs are influenced by their moral emotions related to environmental issues. In a context where climate change has become a key topic for individuals and society, our results point to psychological needs as a possible mechanism to explain the detrimental consequences of environmental concerns on individuals' well-being (e.g., eco-anxiety; Verplanken, Marks, & Dobromir, 2020).

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Outcomes of profile membership

Our results confirm Hypothesis 3a as the highest levels of AOC were observed in the *Very Positive Need States Experience* profile, followed by the *Positive Need States Experience* profile, which was itself followed by the *Moderate and Mixed Need States Experience* profile, and finally by the *Negative Need States Experience* profile. Our results are thus in line with prior variable-centered research, such as Greguras and Diefendorff (2009) and Gillet et al. (2015), that has found need satisfaction to be an important mechanism to positively explain employees' AOC and need thwarting to negatively explain AOC. Our results are also in line with prior person-centered research on psychological need states (Huyghebaert-Zouaghi et al., 2022a) by showing the combination of need frustration and need unfulfillment to carry the worst consequences in terms of AOC, thus showing the detrimental additive effect of these negative need states. Our results also expand the commitment literature and contribute to SDT by providing new information showing that need experiences dominated by need unfulfillment (i.e., *Moderate and Mixed Need States Experience* profile) are also detrimental for AOC. Indeed, need unfulfillment has recently been introduced in the literature (Huyghebaert-Zouaghi et al., 2021) and had not yet been studied in relation to AOC. Our results confirm the relevance of this distinctive need state as a powerful predictor of AOC deterioration and suggest that need unfulfillment may elicit protective reactions in the form of less attachment and identification with the organization. Thus, beyond the necessity to promote need satisfaction and avoid need frustration (Gillet et al., 2015), preventing employees' feelings that their needs are abandoned also seems crucial to foster AOC.

Our results also confirm Hypothesis 3b as employees with the highest levels of turnover intentions were found among members of the *Negative Need States Experience* profile, followed by the *Moderate and Mixed Need States Experience* profile, which was itself followed by the *Positive Need States Experience* and *Very Positive Need States Experience* profiles. Our results are thus in line with prior variable-centered research (Huyghebaert et al., 2018b; Trépanier et al., 2015; Van den Broeck et al., 2016), showing need satisfaction to negatively relate to turnover intentions, while need frustration positively predicts these withdrawal intentions. Our results are also in line with prior person-centered research on psychological need states showing the detrimental additive effects of need frustration and need unfulfillment (Huyghebaert-Zouaghi et al., 2022a) by emphasizing this combination to be the most powerful predictor of employees contemplating to leave their job. Our results also contribute to the turnover literature and to SDT by providing new information showing that need experiences dominated by need unfulfillment (i.e., *Moderate and Mixed Need States Experience* profile) are also predictive of turnover intentions. This research therefore allows to expand the nomological network of need unfulfillment by showing this work experience to not only relate to employees' motivation (Huyghebaert-Zouaghi et al., 2022a) and work-related psychological health (Huyghebaert-Zouaghi et al., 2021) but also to predict their behavioral intentions in the form of turnover intentions. This key organizational outcome emphasizes the importance of considering this psychological need state, together with need satisfaction and frustration, to get a broader understanding of employees' potential withdrawal from their job. Indeed, when experiencing need unfulfillment, employees may consider leaving their job to search for more meaningful work experiences. More generally, this person-centered approach shed some new light on the configurations of need states experiences that are most detrimental for turnover intentions and allow to identify at risk profiles.

Finally, regarding Hypothesis 3c, results contradicted our expectations. The highest levels of cyberslacking were found in the *Positive Need States Experience* profile, which did not significantly differ from the *Very Positive Need States Experience* profile in terms of cyberslacking, while the lowest levels of cyberslacking were found in the *Negative Need States Experience* profile, followed by the *Moderate and Mixed Need States Experience* profile. In other words, the highest levels of cyberslacking were found in the most positive need states profiles, dominated by need satisfaction (i.e., *Positive Need States Experience* and *Very Positive Need States Experience* profiles), while the lowest levels of

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this form of procrastination were found in the most negative profiles dominated by need frustration and/or need unfulfillment (i.e., *Negative Need States Experience* and *Moderate and Mixed Need States Experience* profiles). A possible explanation for these counterintuitive results is that when feeling autonomous, competent, and affiliated, employees could respectively take the liberty to surf the internet and feel free to schedule their tasks around it, feel confident in their ability to catch up with their work later, and not fear the interpersonal consequences of their procrastination. On the contrary, frustrated and/or unfulfilled psychological needs could create pressures or uncertainty regarding the consequences of procrastination and employees could thus avoid cyberslacking. Moreover, the negative need states profiles may themselves originate from a lack of – or uncertainty regarding – one's amount of latitude in one's job and/or from pressures, making procrastination impossible in the first place. In other words, it is possible that employees experiencing positive need states experiences could be active procrastinators who make deliberate procrastination decisions and reap benefits from their procrastination behaviors in terms of well-being and performance (Chun Chu, & Choi, 2005). Yet, we did not differentiate between active and passive forms of cyberslacking, and more research is thus needed to reach a better understanding of the relations between psychological need states and procrastination. Alternatively, these counterintuitive results could also be explained by the cross-sectional nature of our research. Indeed, procrastination has been shown to come with short term benefits (Tice & Baumeister, 1997). It is thus possible that it would come with higher need satisfaction on the short term, but employees could transition to profiles dominated by need unfulfillment or frustration over time. More research looking into the temporal dynamics of psychological need states and procrastination is thus needed to further explore this issue.

Limitations and suggestions for future research

Despite its important theoretical contributions, the present study has certain limitations. First, our reliance on a convenience sample of French employees that was overrepresented by employees in the service industry reduces the opportunities to generalize to other cultural groups and occupational groups. This is relevant as the universality of psychological need states is a key tenet of SDT (Vansteenkiste et al., 2020). However, we tried to overcome this limitation by exploring how some demographics (age, gender, environmental concerns, contract type, and organizational tenure) were associated with the profiles. These results showed that demographics were unrelated to profile membership. Moreover, we hope that the results from our sample can offer insights for other occupational groups as well. Future research is needed to confirm whether the identified profiles can generalize to employees from specific occupational groups and cultures. Second, we relied on only one source of information, which is sensitive to social desirability, perception and recall biases, and shared method variance effects. We tried to overcome this bias by specifically developing our survey with a number of strategies, including random ordering of questions. Future research could also separate the measures of the predictor and criterion variables and collect data from more sources (e.g., supervisor ratings of procrastination) and not only depend on self-reports, including more objective and performance-based outcomes (e.g., objective turnover data). Future studies could also control for the organization's CSR performance. As data was collected online from employees working in different organizations, we focused on perceptions of CSR. Those perceptions are influenced by the organizations' CSR performance, communication, and/or employees' global attitudes and expectations about the organization. Controlling for objective CSR performance could thus be interesting to show that beyond objective CSR performance, communication about it can help to build a need satisfying environment. Furthermore, a cross-sectional study design was adopted; therefore, we were unable to determine the direction of effects between the variables. Future research is needed to take a longitudinal approach (e.g., Huyghebaert-Zouaghi et al., 2022a) and examine directionality, including possible bidirectional relationships, among the study variables.

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Practical contributions

Despite these limitations, the current findings have practical implications. Indeed, our findings showing the implications of psychological need states profiles (outcomes of profile membership), allow to assess their (dis)advantages and to decide which to target through intervention, based on our findings indicating which levers (predictors of profile membership) can be used to influence profile membership. More precisely, our results suggest that organizations and practitioners need to consider that worker's negative moral emotions in relation to environmental issues seem to have an impact on their psychological need states. These results show that it is important for organizations to focus on environmental issues not only for the sake of the environment, but also to promote their employees' psychological experiences in the workplace. As such, organizations could prevent workers' negative moral emotions related to their organization's environmental (ir)responsibility by communicating to their employees how they work to reach critical environmental goals. Indeed, employees' negative moral emotions on such matters may not necessarily be due to the organization's actual lack of environmental responsibility but simply a result of inadequate communication on the steps taken by the organization (Huyghebaert et al., 2018b) to protect the environment. Organizations may thus allow employees to share their moral standards on the matter and to reflect on how they, their teams, and the organization could work to better promote their organizations environmental responsibility. Managers could also help their employees regulate their negative moral emotions, for example by reappraisal. This could be done by training employees to ask themselves why they experience their emotions, which can help them understand if the emotion is useful or not, and how. Such self-understandings can improve positive need states, while still letting the emotion guide their moral judgment. However, this must be done with care as regulating guilt and shame by reappraisal undermines the important functions these emotions serve (Feinberg, Ford, & Flynn, 2020). It is therefore important that organizations balance the benefits of reappraisal with the costs it can impose. By promoting employees' positive psychological need states experiences through such interventions, organizations could benefit from more committed employees (i.e., high AOC) with less turnover intentions, which is no little consideration in the age of the great resignation (Sheather & Slattery, 2021).

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/jmo.2024.25.

Data availability statement. Data available upon request from the authors.

Acknowledgements. Tomas Jungert gratefully acknowledges financial support from Svensk-Franska Stiftelsen. We would also like to thank Lucas Boutteville and Thérence Rousseaux for their help with this study's data collection as well as Anja Grim and Elvira Snygg Martin who provided valuable insights.

Author contributions. Tomas Jungert and Sylvain Caruana contributed equally to the work and should thus both be considered as a first author.

Conflict of interest. There was no conflict of interest in conducting or reporting this research.

References

Afsar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management*, *27*(1), 109–125.

Askew, K., Buckner, J. E., Taing, M. U., Ilie, A., Bauer, J. A., & Coovert, M. D. (2014). Explaining cyberloafing: The role of the theory of planned behavior. *Computers in Human Behavior*, *36*, 510–519.

Asparouhov, T., & Muthén, B. O. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling*, *21*(3), 1–13.

Bartholomew, K., Ntoumanis, N., Ryan, R., Bosch, J., & Thøgersen-Ntoumani, C. (2011). Self-determination theory and diminished functioning: The role of interpersonal control and psychological need thwarting. *Personality and Social Psychology Bulletin*, *37*(11), 1459–1473.

Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior*, *24*(3), 1067–1084.
Bloom, P. (2013). *Just babies: The origins of good and evil*. New York: Crown.
Chun Chu, A. H., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of "active" procrastination behavior on attitudes and performance. *The Journal of Social Psychology*, *145*(3), 245–264.
Diallo, T. M. O., Morin, A. J. S., & Lu, H. (2016). Impact of misspecifications of the latent variance covariance and residual matrices on the class enumeration accuracy of growth mixture models. *Structural Equation Modeling*, *23*(4), 507–531.
Diallo, T. M. O., Morin, A. J. S., & Lu, H. (2017). The impact of total and partial inclusion or exclusion of active and inactive time invariant covariates in growth mixture models. *Psychological Methods*, *22*(1), 166–190.
Du, S., Bhattacharya, C. B., & Sen, S. (2011). Corporate social responsibility and competitive advantage: Overcoming the trust barrier. *Management Science*, *57*(9), 1528–1545.
Ekman, P. (1992). An argument for basic emotions. *Cognition and Emotion*, *6*(3-4), 169–200.
El Akremi, A., Gond, J. P., Swaen, V., De Roeck, K., & Igalens, J. (2018). How do employees perceive corporate responsibility? Development and validation of a multidimensional corporate stakeholder responsibility scale. *Journal of Management*, *44*(2), 619–657.
Elpidorou, A. (2017). The moral dimensions of boredom: A call for research. *Review of General Psychology*, *21*(1), 30–48.
Fatima, T., Badar, K., Waqas, M., Ayub, A., & Haris, M. (2023). CSR communication matters! An examination of CSR, organisational pride, and task-related pro-environmental behaviour nexus. *Sustainability*, *15*(12), 9665.
Feinberg, M., Ford, B. Q., & Flynn, F. J. (2020). Rethinking reappraisal: The double-edged sword of regulating negative emotions in the workplace. *Organizational Behavior and Human Decision Processes*, *161*, 1–19.
Gherman, M. A., Arhiri, L., Holman, A. C., & Soponaru, C. (2022). Injurious memories from the COVID-19 frontline: The impact of episodic memories of self- and other-potentially morally injurious events on Romanian nurses' burnout, turnover intentions and basic need satisfaction. *International Journal of Environmental Research and Public Health*, *19*(15), 9604.
Gillet, N., Forest, J., Benabou, C., & Bentein, K. (2015). The effects of organizational factors, psychological need satisfaction and thwarting, and affective commitment on workers' well-being and turnover intentions. *Le Travail Humain*, *78*(2), 119–140.
Gillet, N., Fouquereau, E., Forest, J., Brunault, P., & Colombat, P. (2012). The impact of organizational factors on psychological needs and their relations with well-being. *Journal of Business and Psychology*, *27*(4), 437–450.
Gillet, N., Morin, A. J. S., Choisay, F., & Fouquereau, E. (2019). A person-centered representation of basic need satisfaction balance at work. *Journal of Personnel Psychology*, *18*(3), 113–128.
Gillet, N., Morin, A. J. S., Huart, I., Colombat, P., & Fouquereau, E. (2020). The forest and the trees: Investigating the globality and specificity of employees' basic need satisfaction at work. *Journal of Personality Assessment*, *102*(5), 702–713.
Gould-Williams, J. (2004). The effects of 'high commitment' HRM practices on employee attitude: The views of public sector workers. *Public Administration*, *82*(1), 63–81.
Grandey, A., & Gabriel, A. (2015). Emotional labor at a crossroads: Where do we go from here? *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 323–349.
Greenbaum, R., Bonner, J., Gray, T., & Mawritz, M. (2020). Moral emotions: A review and research agenda for management scholarship. *Journal of Organizational Behavior*, *41*(2), 95–114.
Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person-environment fit to employee attitudes and performance using self-determination theory. *Journal of Applied Psychology*, *94*(2), 465–477.
Haidt, J. (2003). The moral emotions. In R. J. Davison, K. R. Scherer, and H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford: Oxford University Press.
Hancox, J. E., Quested, E., Ntoumanis, N., & Duda, J. L. (2017). Teacher-created social environment, basic psychological needs, and dancers' affective states during class: A diary study. *Personality and Individual Differences*, *115*, 137–143.
Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., … Stone, P. W. (2006). Nurse turnover: A literature review. *International Journal of Nursing Studies*, *43*(2), 237–263.
Howard, M. C., & Hoffman, M. E. (2018). Variable-centered, person-centered, and person-specific approaches: Where theory meets the method. *Organizational Research Methods*, *21*(4), 846–876.
Huyghebaert, T., Gillet, N., Fernet, C., Lahiani, F. J., Chevalier, S., & Fouquereau, E. (2018a). Investigating the longitudinal effects of surface acting on managers' functioning through psychological needs. *Journal of Occupational Health Psychology*, *23*(2), 207–222.
Huyghebaert, T., Gillet, N., Fernet, C., Lahiani, F.-J., & Fouquereau, E. (2018b). Leveraging psychosocial safety climate to prevent ill-being: The mediating role of psychological need thwarting. *Journal of Vocational Behavior*, *107*, 111–125.
Huyghebaert-Zouaghi, T., Gillet, N., Fernet, C., Thomas, J., & Ntoumanis, N. (2022a). Managerial predictors and motivational outcomes of workers' psychological need states profiles: A two-wave examination. *European Journal of Work and Organizational Psychology*, Advance online publication https://doi.org/10.1080/1359432X.2022.2127354
Huyghebaert-Zouaghi, T., Morin, A. J. S., Fernet, C., Austin, S., & Gillet, N. (2022). Longitudinal profiles of work-family interface: Their individual and organizational predictors, personal and work outcomes, and implications for onsite and remote workers. *Journal of Vocational Behavior*, *134*, 103695.
Huyghebaert-Zouaghi, T., Morin, A. J.S., Forest, J., Fouquereau, E., & Gillet, N. (2022). A longitudinal examination of nurses' need satisfaction profiles: A latent transition analysis. Current Psychology, *41*(7), 4837–4859.

https://doi.org/10.1017/jmo.2024.25 Published online by Cambridge University Press

Huyghebaert-Zouaghi, T., Morin, A. J. S., Forest, J., Fouquereau, E., & Gillet, N. (2022b). A longitudinal examination of nurses' need satisfaction profiles: A latent transition analysis. *Current Psychology*, *41*(7), 4837–4859.
Huyghebaert-Zouaghi, T., Ntoumanis, N., Berjot, S., & Gillet, N. (2021). Advancing the conceptualization and measurement of psychological need states: A 3 × 3 model based on self-determination theory. *Journal of Career Assessment*, *29*(3), 396–421.
Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior*, *51*(3), 319–337.
Jungert, T., Gradito Dubord, M. A., Högberg, M., & Forest, J. (2022). Can managers be trained to further support their employees' basic needs and work engagement: A manager training program study. *International Journal of Training and Development*, *26*(3), 472–494.
Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2017). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management*, *43*, 1335–1358.
Kim, H., Rhou, Y., Topcuoglu, E., & Kim, Y. G. (2020). Why hotel employees care about Corporate Social Responsibility (CSR): Using need satisfaction theory. *International Journal of Hospitality Management*, *87*, 102505.
Kuhn, P., & Yu, L. (2021). How costly is turnover? Evidence from retail. *Journal of Labor Economics*, *39*(2), 461–496.
Lagios, C., Caesens, G., Nguyen, N., & Stinglhamber, F. (2022). Explaining the negative consequences of organizational dehumanization. *Journal of Personnel Psychology*, *21*(2), 86–93.
Leary, M. R. (2002). When selves collide: The nature of the self and the dynamics of interpersonal relationships. In A. Tesser, D. A. Stapel, and J. V. Wood (Eds.), *Self and motivation* (pp. 119–145). Washington, DC: APA.
Lin, C. P., & Liu, M. L. (2017). Examining the effects of corporate social responsibility and ethical leadership on turnover intention. *Personnel Review*, *46*, 526–550.
Lo, Y., Mendell, N. R., & Rubin, D. B. (2001). Testing the number of components in a normal mixture. *Biometrika*, *88*(3), 767–778.
Lubke, G., & Muthén, B. O. (2007). Performance of factor mixture models as a function of model size, covariate effects, and class-specific parameters. *Structural Equation Modeling*, *14*(1), 26–47.
Maertz, C. P. Jr, & Campion, M. A. (2004). Profiles in quitting: Integrating process and content turnover theory. *Academy of Management Journal*, *47*(4), 566–582.
Marsh, H. W., Lüdtke, O., Trautwein, U., & Morin, A. J. S. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person- and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling*, *16*(2), 191–225.
McLachlan, G., & Peel, D. (2000). *Finite mixture models*. New York: Wiley.
Mercurio, Z. A. (2015). Affective commitment as a core essence of organizational commitment: An integrative literature review. *Human Resource Development Review*, *14*(4), 389–414.
Metin, U. B., Taris, T. W., Peeters, M. C., Korpinen, M., Smrke, U., Razum, J., … Gaioshko, D. (2020). Validation of the Procrastination at Work Scale: A seven-language study. *European Journal of Psychological Assessment*, *36*(5), 767–776.
Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, *11*(3), 299–326.
Meyer, J. P., & Maltin, E. R. (2010). Employee commitment and well-being: A critical review, theoretical framework and research agenda. *Journal of Vocational Behavior*, *77*, 323–337.
Morin, A. J. S. (2016). Person-centered research strategies in commitment research. In J. P. Meyer (Ed.), *The handbook of employee commitment* (pp. 490–508). Cheltenham: Edward Elgar.
Morin, A. J. S., & Litalien, D. (2019). Mixture modelling for lifespan developmental research. In *Oxford research encyclopedia of psychology* (pp. 1–24). Oxford University Press.
Morin, A. J. S., Maïano, C., Nagengast, B., Marsh, H. W., Morizot, J., & Janosz, M. (2011). Growth mixture modeling of adolescents' trajectories of anxiety: The impact of untested invariance assumptions on substantive interpretations. *Structural Equation Modeling*, *18*(4), 613–648.
Muthén, L. K., & Muthén, B. (2021). *Mplus user's guide*. Los Angeles: Muthén & Muthén.
Neininger, A., Lehmann-Willenbrock, N., Kauffeld, S., & Henschel, A. (2010). Effects of team and organizational commitment – A longitudinal study. *Journal of Vocational Behavior*, *76*, 567–579.
Ohana, M., Murtaza, G., Al-Shatti, E., & Chi, Z. (2023). Why and when can CSR toward employees lead to cyberloafing? The role of workplace boredom and moral disengagement. *Journal of Business Ethics*, Advance online publication 10.1007/s10551-023-05358-4
Olafsen, A. H., Halvari, H., & Frølund, C. W. (2021). The Basic Psychological Need Satisfaction and Need Frustration at Work Scale: A validation study. *Frontiers in Psychology*, *12*, 697306.
Onkila, T., & Sarna, B. (2022). A systematic literature review on employee relations with CSR: State of art and future research agenda. *Corporate Social Responsibility and Environmental Management*, *29*(2), 435–447.
Oosthuizen, A., Rabie, G. H., & De Beer, L. T. (2018). Investigating cyberloafing, organisational justice, work engagement and organisational trust of South African retail and manufacturing employees. *SA Journal of Human Resource Management*, *16*, 1–11.
Oram, R., & Rogers, M. (2022). Academic procrastination in undergraduate students: Understanding the role of basic psychological need satisfaction and frustration and academic motivation. *Canadian Journal of Education*, *45*(3), 619–645.

https://doi.org/10.1017/jmo.2024.25 Published online by Cambridge University Press

Peloza, J., & Shang, J. (2011). How can corporate social responsibility activities create value for stakeholders? A systematic review. *Journal of the Academy of Marketing Science*, *39*, 117–135.

Perreira, T. A., Morin, A. J., Hebert, M., Gillet, N., Houle, S. A., & Berta, W. (2018). The short form of the Workplace Affective Commitment Multidimensional Questionnaire (WACMQ-S): A bifactor-ESEM approach among healthcare professionals. *Journal of Vocational Behavior*, *106*, 62–83.

Rouse, P., Turner, P., Siddall, A., Schmid, J., Standage, M., & Bilzon, J. (2020). The interplay between psychological need satisfaction and psychological need frustration for psychological health within a work context: A variable and person-oriented approach. *Motivation and Emotion*, *44*, 175–189.

Rupp, D. E., Ganapathi, J., Aguilera, R. V., & Williams, C. A. (2006). Employee reactions to corporate social responsibility: An organizational justice framework. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *27*(4), 537–543.

Rupp, D. E., Shao, R., Thornton, M. A., & Skarlicki, D. P. (2013). Applicants' and employees' reactions to corporate social responsibility: The moderating effects of first-party justice perceptions and moral identity. *Personnel Psychology*, *66*, 895–933.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, *63*(3), 397–427.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: Guilford.

Schaefer, S. D., Terlutter, R., & Diehl, S. (2020). Talking about CSR matters: Employees' perception of and reaction to their company's CSR communication in four different CSR domains. *International Journal of Advertising*, *39*(2), 191–212.

Schreurs, B., van Emmerik, I. H., Van den Broeck, A., & Guenter, H. (2014). Work values and work engagement within teams: The mediating role of need satisfaction. *Group Dynamics: Theory, Research, and Practice*, *18*(4), 267–281.

Sheather, J., & Slattery, D. (2021). The great resignation—How do we support and retain staff already stretched to their limit? *BMJ*, *375* 1–2.

Stazyk, E. C., Pandey, S. K., & Wright, B. E. (2011). Understanding affective organizational commitment. *The American Review of Public Administration*, *41*(6), 603–624.

Tandon, A., Dhir, A., Talwar, S., Kaur, P., & Mäntymäki, M. (2022). Social media induced fear of missing out (FoMO) and phubbing: Behavioural, relational and psychological outcomes. *Technological Forecasting and Social Change*, *174*, 121149.

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). What's moral about the self-conscious emotions? In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 21–37). New York: Gulliford Press.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, *46*(2), 259–293.

Thornberg, R., Pozzoli, T., Gini, G., & Jungert, T. (2015). Unique and interactive effects of moral emotions and moral disengagement on bullying and defending among school children. *The Elementary School Journal*, *116*(2), 322–337.

Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science*, *8*(6), 454–458.

Tóth-Király, I., Bőthe, B., Orosz, G., & Rigó, A. (2020). On the importance of balanced need fulfillment: A person-centered perspective. *Journal of Happiness Studies*, *21*, 1923–1944.

Trépanier, S. G., Fernet, C., & Austin, S. (2015). A longitudinal investigation of workplace bullying, basic need satisfaction, and employee functioning. *Journal of Occupational Health Psychology*, *20*(1), 105–116.

Tsai, H., Tsang, N. K., & Cheng, S. K. (2012). Hotel employees' perceptions on corporate social responsibility: The case of Hong Kong. *International Journal of Hospitality Management*, *31*(4), 1143–1154.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. Retrieved April 6, 2023 from, https://sustainabledevelopment.un.org/post2015/transformingourworld

Van den Broeck, A., Ferris, D. L., Chang, C. H., & Rosen, C. C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management*, *42*(5), 1195–1229.

Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory: Advancements, critical themes, and future directions. *Motivation and Emotion*, *44*, 1–31.

Venkatesh, V., Cheung, C. M. K., Davis, F. D., & Lee, Z. W. Y. (2023). Cyberslacking in the workplace: Antecedents and effects on job performance. *MIS Quarterly*, *47*(1), 281–316.

Verplanken, B., Marks, E., & Dobromir, A. I. (2020). On the nature of eco-anxiety: How constructive or unconstructive is habitual worry about global warming? *Journal of Environmental Psychology*, *72*, 101528.

Wang, Q., Dou, J., & Jia, S. (2016). A meta-analytic review of corporate social responsibility and corporate financial performance. *Business & Society*, *55*(8), 1083–1121.

Cite this article: Jungert, T., Caruana, S., Gillet, N., and Huyghebaert-Zouaghi, T. (2024). Psychological need satisfaction, frustration, and unfulfillment profiles in the workplace: Their nature, predictors, and outcomes. *Journal of Management & Organization*, 1–22. https://doi.org/10.1017/jmo.2024.25