On the Nature, Predictors, and Outcomes of Work Passion Profiles: A Comparative Study Across Samples of Indigenous and Non-Indigenous Australian Employees

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Abstract
Based on the dualistic model of passion, we conducted person-centered analyses to assess how harmonious and obsessive passion for work combine within distinct profiles of employees and document the associations between these profiles and theoretically relevant predictors and outcomes. We also investigate whether the nature of these profiles, and their associations with predictors and outcomes, differ between samples of Australian Indigenous ($N = 591$; 66.0% Female, $M_{age} = 41.87$) and non-Indigenous ($N = 605$; 56.0% Female, $M_{age} = 44.79$) employees. Our results uncovered four profiles, which were replicated across both samples of employees: Harmonious Passion Dominant, Obsessive Passion Dominant, Mixed Passion-Obsessive Passion Dominant, and Low Passion. Role ambiguity and job overload were found to be related to employees' likelihood of profile membership in a way that was similar across both samples. Finally, psychological well-being and resilience at work differed as a function of profile membership in a way that was replicated across samples. In addition to the theoretical implications for research on work passion, these results clearly highlight how work passion has highly similar implications for Indigenous and non-Indigenous Australian employees.
Keywords. Work passion; well-being; person-centered approach; latent profile analyses; job demands; resilience; Indigenous Australians.

The idea that employees can, and perhaps even should, be passionate about their work is highly prevalent in the popular discourse (Chen et al., 2015). Not surprisingly, organizational research has followed suit in recently allocating an increased level of attention to work passion (Gillet et al., 2022; Huyghebaert-Zouaghi et al., 2022), due in part to its recognized benefits for organizational (e.g., Laurent et al., 2021) and individual (e.g., Houlfort et al., 2018) functioning. Passionate workers love their work, look forward to it, are intrinsically motivated by it, and derive a sense of fulfillment from it (Vallerand et al., 2003). Given the huge amount of time employees spend at work, it does indeed seem important to understand how and why some employees come to find enjoyment and fulfillment in their professional life (Vallerand and Houlfort, 2019). By studying work passion, research can help address these questions by revealing how passionate employees manage to maintain passion over time while others seem to lose their fire, or how passionate employees manage to persist despite considerable obstacles and impediments in their work (Cardon et al., 2009).

The dualistic model of passion (Vallerand, 2015; Vallerand and Houlfort, 2019) highlights the need to differentiate harmonious (HP; a strong psychological investment in an activity [job] that is freely chosen by the individual) and obsessive (OP; strong psychological investment in an activity [job] that is driven by internal or external contingencies associated with the activity) forms of passion, given their unique associations with a variety of predictors and outcomes (e.g., Houlfort et al., 2018; Laurent et al., 2021). Unfortunately, although both forms of passion have never been proposed as mutually exclusive (Gillet et al., 2022), work passion research has thus far mainly focused on the isolated, additive, or interactive associations between both forms of passion and a variety of predictors and outcomes (i.e., variable-centered associations assumed to generalize to the whole sample).

Fortunately, emerging person-centered research has started to investigate how HP and OP combine with one another within distinct profiles of employees (Li et al., 2020), anchored in the development of a novel *quadripartite* model of passion (Schellenberg et al., 2019). This new model is anchored in a person-centered theoretical perspective (Morin et al., 2018), proposing that it is necessary to consider the unique configurations of HP and OP that characterize distinct types of employees to adequately understand their effects. By allowing us to capture these unique configurations, our reliance on person-centered methods should help us to achieve a clearer understanding of the most optimal work passion profiles for employees, in addition to providing a direct test of the theoretical assumptions of the *quadripartite* model of passion. For instance, will high levels of OP be equally problematic when combined with equally high levels of HP? Likewise, this approach should be able to shed light on the key work-related mechanisms (e.g., job demands) involved in the emergence, development, and maintenance of more or less desirable profiles of work passion rather than considering how to separately stimulate HP while limiting OP. From a practical perspective, person-centered results also have the advantage of being more naturally aligned with managers and practitioners' tendency to think about employees as members of different categories (person-centered) rather than in terms of a set of complex associations among variables (variable-centered; Morin et al., 2011).

Unfortunately, investigations of this new *quadripartite* model of passion have so far been mainly limited to non-work domains (e.g., undergraduate students and video gamers: Schellenberg et al., 2019; students: Schellenberg et al., 2021a; athletes: Schellenberg et al., 2021b; marijuana users: Dolan et al., 2021), with only two studies conducted among French (Gillet et al., 2022) and Chinese (Li et al., 2020) employees. Moreover, although the *quadripartite* model of passion is itself person-centered, a single study (Li et al., 2020) has relied on person-centered methods to try and validate this model, and has done so within the unique cultural context of China. Other studies have all relied on a variable-centered approach, thus erroneously assuming that all participants come from the same population for which results can be summarized by a single set of "average" parameters. By seeking to identify the naturally emerging work passion configurations truly observed among Australian employees, a person-centered approach provides a more direct way of testing whether these configurations will truly match one of the *a priori* four theoretical configurations highlighted in the *quadripartite* model. For instance, rather than assuming that participants' levels of HP and OP will necessarily be either high or low, the person-centered approach can also identify subpopulations of employees displaying moderate (or even moderately high or low) levels of HP and/or OP.

Finally, this study also expands upon these previous studies by considering samples of Indigenous and non-Indigenous Australian employees, while also considering the role of predictors and outcomes of work passion profiles not previously examined by Li et al. (2020). By considering these two samples

of employees, the present study contributes to this field of research in two different manners. First, generalizability is critical to person-centered research which requires an accumulation of results obtained across diversified samples (e.g., countries, cultures, occupations) to differentiate the core set of profiles that emerge systematically across all situations from the additional profiles that are specific to some contexts and the rarer profiles reflecting random sampling variations (e.g., Meyer and Morin, 2016). Second, after exposure to centuries of systemic discrimination, Indigenous Australians are one of the the most disadvantaged ethnic group internationally (Australian Government, 2015), leading to a waste of Indigenous talent for Australian society as a whole (Craven and Parbury, 2013; Jones et al., 2023; Khatibi et al., 2023). The recent COVID-19 pandemic has also had a particularly negative impact for members of ethnic minorities and marginalized groups (Wright and Chan, 2022), such as Indigenous Australians. These observations have led Australian researchers to highlight the need to increase our understanding of the core drivers of thriving, well-being, motivation, and success among Indigenous Australians (Craven and Parbury, 2013; Dodson, 2009), with work passion listed as a key area of strength worth exploring more extensively (Craven et al., 2016).

Theoretically underpinned by the dualistic (Vallerand, 2015) and *quadripartite* (Schellenberg et al., 2019) models of passion, this study: (1) investigates work passion using person-centered latent profile analyses (LPA) to identify heterogeneous subpopulations of Australian employees characterized by distinct configurations of HP and OP; (2) evaluates the construct validity of these empirically-derived profiles using theoretically relevant predictors (i.e., job overload and role ambiguity) and outcomes (i.e., psychological well-being and resilience at work); and (3) determines whether work passion profiles are generalizable to Indigenous and non-Indigenous Australian employees. The three research questions guiding the study are as follows. Can distinct work passion profiles be identified, and are these profiles consistent with the predictions of the dualistic (Vallerand, 2015) and *quadripartite* (Schellenberg et al., 2019) models of passion and with previous research findings (i.e., Li et al., 2020)? Does the strength and direction of the associations between work passion profiles, predictors, and outcomes align with theoretical expectations? Are combinations of HP and OP for work expressed similarly by Indigenous and non-Indigenous employees?

The present study represents a necessary step in improving our practical understanding of how HP and OP are jointly experienced by all Australian employees, of how specific work characteristics are likely to impact their work passion profiles, of the relative desirability of these work passion profiles for employees' functioning, and of whether and how results generalize to Indigenous and non-Indigenous Australian employees. At a time when many organizations are rethinking ways to preserve and enhance employees' well-being, motivation, and performance, these results are likely to yield important insights for the development of intervention strategies specifically targeted at work passion profiles as they naturally occur among employees.

This research contributes to the extant literature in four important ways. First, to achieve a better alignment with the person-centered propositions of the *quadripartite* model of passion (Schellenberg et al., 2019) than previous variable-centered studies (e.g., Schellenberg et al., 2019, 2021b) in which HP and OP have been investigated as independent constructs, we rely on a person-centered approach to identify subpopulations of employees characterized by various configurations of HP and OP. Second, we replicate and extend the preliminary findings of the only other person-centered study (Li et al., 2020) which has investigated the work passion profiles of Chinese workers by relying on a Western sample of employees and considering predictors and outcomes of passion profiles not previously examined. Third, we examine the applicability of the *quadripartite* model of passion in an Australian work context, whereas this model has to date been primarily studied in non-work domains (Gillet et al., 2022), and never in Australia. Finally, this research contributes to the paucity of research examining Indigenous employee's experiences in the workplace generally (Harr and Brougham, 2013, 2022). As far as we are aware, this is the only study to have specifically explored work passion and associated predictors and outcomes within an Indigenous sample. This is particularly important as historically there have been a number of barriers preventing Indigenous populations from fully participating and succeeding in the workforce (Australian Council of Trade Unions, 2019; Jones et al., 2023; Khatibi et al., 2023), resulting in a large gap in income, turnover, and employment rates between Indigenous and non-Indigenous people across the globe. Thus, research into the nature of Indigenous peoples' passion for work is vital if organizations are to create workplace environments that afford the Indigenous workforce the same opportunities for positive work experiences as their non-Indigenous counterparts. Interestingly, a new

theoretical model of Indigenous thriving has highlighted passion as a potentially critical driver of well-being among indigenous populations internationally (Craven et al., 2016).

A Person-Centered Perspective on Work Passion

The dualistic model of passion (Vallerand et al., 2003; Vallerand, 2015) posits that passion may take a harmonious or obsessive form depending on how it is internalized into one's identity. Harmoniously passionate workers freely choose to engage in the work that they love, which has been autonomously internalized into their identity. Their passion for work thus represents a strong, but not controllable, motivational force that can exist in harmony with other facets of employees' lives (Vallerand and Houlfort, 2019). In contrast, although obsessively passionate employees love their work, they also feel pressured to engage in it as a result of internal or external pressures and contingencies (Vallerand, 2015). OP entails an uncontrollable urge to work (Houlfort et al., 2018), leading workers to struggle with the establishment of adaptive boundaries between work and other life domains (Vallerand and Houlfort, 2019).

The dualistic model of passion (Vallerand, 2015) positions HP and OP on two separate continua, thus acknowledging that some workers may simultaneously experience high levels of OP and HP, while others may experience only one, or neither. The internalization process pertaining to the development of a passion is not an either-or process and is heavily influenced by characteristics of the environment in which the passionate activity is conducted (Vallerand, 2010). Acknowledging that HP and OP co-occur highlights the need to move beyond the examination of independent effects to consider their combined role. For example, is it better to display no passion at all for one's work than to display high levels of OP without any HP? Alternatively, are workers protected against the negative effects of high OP when they also display high HP?

However, a key challenge for research seeking to understand how HP and OP co-occur among distinct types of employees is related to the lack of previous research related to the nature and psychological underpinning of these profiles. Fortunately, Schellenberg et al. (2019) recently proposed a *quadripartite* model of passion to guide person-centered investigations of the role played by distinctive combinations of HP and OP. This model differentiates four theoretical combinations, each assumed to be driven by distinct psychological mechanisms (Schellenberg et al., 2019): OP Dominant (low HP; high OP), HP Dominant (high HP; low OP), Mixed Passion (high HP; high OP), and Low Passion (low HP; low OP). From this theoretical perspective, emerging person-centered research has started to look at how HP and OP combine within distinct profiles of employees (Li et al., 2020), supporting the idea that neither can be understood in disconnection from the other. More specifically, in the only person-centered study conducted to validate this model, Li et al. (2020) identified three profiles of participants among three convenience samples of Chinese employees: (1) Mixed Passion (high HP and OP; corresponding to 38% of the first sample, 59% of the second sample, and 53% of the third sample); (2) HP Dominant (moderate HP and low OP; 60% of Sample 1, 29% of Sample 2, and 33% of Sample 3); and (3) OP Dominant (low HP and moderate OP; 2% of Sample 1, 12% of Sample 2, and 14% of Sample 3). This study seeks to provide a replication of Li et al.'s (2020) results outside of the unique Chinese cultural context among a diversified sample of Australian employees, as well as among subsamples of Indigenous and non-Indigenous Australian employees. Based on Li et al.'s (2020) results and the *quadripartite* model of passion, we expect that:

> *Hypothesis 1*. At least four profiles will be identified. These profiles will be characterized by matching (i.e., Low Passion and Mixed Passion) and different (i.e., HP Dominant and OP Dominant) levels of HP and OP.

A Construct Validation Perspective

In person-centered analyses, it is critical to document the theoretical and practical implications of the profiles via the examination of their associations with theoretically relevant predictors and outcomes (i.e., construct validity; Marsh et al., 2009; Meyer and Morin, 2016). Without information on key predictors, knowledge regarding the nature of work passion profiles will be of very limited utility for managers and organizations who also need to know which levers to use for intervention. Likewise, without information on their outcomes, it is impossible to assess the true desirability of the various profiles, making it hard to decide which of them should be targeted for intervention.

Predictors of Profile Membership

To extend upon prior research (Li et al., 2020), we consider the predictive associations between role ambiguity and job overload and employees' likelihood of profile membership. These predictors are likely to play a role in driving employees to allocate —willingly or not— more or less of their energy

and resources to their work role and can thus be theoretically expected to play a role in the emergence of specific work passion profiles (Vallerand, 2015; Vallerand and Houlfort, 2019).

Job overload. Job overload (i.e., exposure to an amount of work exceeding what one can do in a given time; Reh et al., 2021) has been shown to be associated with higher levels of OP and lower levels of HP (Lavigne et al., 2014; Thorgren and Wincent, 2013). Positive associations have also been found between various forms of job demands, as well as workaholism (as an extreme form of work involvement often resulting in job overload), and OP (Trépanier et al., 2014; Tóth-Király et al., 2021). Overloaded employees tend to spend an excessive amount of time and effort in their work at the expense of their family life, have difficulties disengaging from work, experience negative mood when prevented from working, and remain preoccupied with their work at home (Gillet et al., 2017). These consequences of job overload are defining characteristics of OP (Vallerand, 2015), suggesting that experiencing the former may lead to the latter. In contrast, overworked employees seldom enjoy their work, which may explain the negative effects of job overload on HP (Stroe et al., 2018). Based on these previous variable-centered findings, we propose that, in our person-centered approach:

> *Hypothesis 2.* Job overload will be associated with membership into the OP Dominant profile relative to the HP Dominant, Mixed Passion, and Low Passion profiles.

Role ambiguity. Role ambiguity is a stressor referring to vague and unclear expectations, leading employees to feel uncertain about what is expected of them (Katz and Kahn, 1978). Role ambiguity is associated with decreases in employees' positive feelings towards work as it hinders their ability to attain their own personal and professional goals (Collewaert et al., 2016). By leading them to question what is expected of them, role ambiguity also puts pressure on employees (Gillet et al., 2015). Role ambiguity is thus compatible with OP, given that employees with a high OP for their work tend to feel pressured to work and often end up dedicating a disproportionate amount of their time and energy to their work (Vallerand, 2015). More generally, role ambiguity is often associated with increases in job demands and wasted energy expenditure, which in turn depletes employees' personal resources (Hobfoll, 2011). This lack of resources to allocate to work is likely to decrease their level of passion, particularly HP (Trépanier et al., 2014). Conversely, when role ambiguity is lower, employees can achieve valued work outcomes without such a depletion of their personal resources, leading them to experience more positive feelings (Vallerand and Houlfort, 2019). In such cases, working becomes internalized in a more autonomous and voluntary manner, thus increasing their likelihood of experiencing high levels of HP for their work (Vallerand, 2015). As a result, we propose that:

> *Hypothesis 3.* Role ambiguity will be associated with membership into the OP Dominant and Low Passion profiles relative to the HP Dominant and Mixed Passion profiles.

Outcomes of Profile Membership

To further expand upon previous research (Li et al., 2020), we consider both psychological well-being and resilience at work as outcomes of these profiles. Passionate workers allocate a lot of their personal resources to their work in a more (HP) or less (OP) balanced manner, while gaining some personal resources as a result of the sense of fulfillment and enjoyment derived from their ability to spend time in an activity about which they are passionate. As a result, passion for work is likely to influence how well employees their work roles, along with the psychological well-being that they experience in their life in general (Houlfort et al., 2018; Vallerand and Houlfort, 2019). More precisely, HP tends to be associated with higher levels of well-being at work and in life in general (Forest et al., 2012; Philippe et al., 2009). For instance, Schellenberg et al. (2019; similar results were reported by Schellenberg et al., 2021b) showed that workers with the highest levels of HP experienced more positive outcomes (e.g., physical health and psychological well-being) than employees with low levels of HP. They also found that employees with the highest levels of OP experienced more negative outcomes (e.g., physical symptoms) than workers with low levels of OP. Surprisingly, Li et al. (2020) also found that their HP Dominant profile displayed lower levels of psychological well-being than their Mixed Passion and OP Dominant profiles, which did not differ from one another. However, these results were obtained in a specific cultural context (i.e., China), so that further work is required to investigate the nature of work passion profiles most commonly observed in Western countries such as Australia, and in relation to different outcomes (e.g., resilience).

From a theoretical perspective, for workers with a HP Dominant profile, work can co-exist harmoniously with other facets of their life, allowing them to establish adaptive boundaries between their work and other life areas, in turn reducing their risk of experiencing conflicts between their

personal and professional lives, and promoting their psychological well-being (Vallerand and Houlfort, 2019). Furthermore, HP should help employees accumulate work-related resources (e.g., better health, more positive mood, greater skills; Hobfoll, 2011) as a result of enjoying their work (Vallerand et al., 2003). As these resources accumulate, they become available to support employees in meeting the demands they face in various domains, thus fostering their resilience in the face of adversity at work and in their life in general (Vallerand, 2015; Vallerand and Houlfort, 2019).

In contrast, workers with an OP Dominant profile engage in their work with a rigid persistence, making it harder to establish clear boundaries between work and other life domains and increasing the likelihood that work will interfere with other life areas and with their well-being (Houlfort et al., 2018). As a result, these employees are less likely to accumulate resources in their personal life to support their work. Likewise, because they tend to spend most of their personal resources at work, employees with high levels of OP may adopt defensive strategies to protect themselves from further loss of resources in other life domains (Hobfoll, 2011). As a result, they are more likely to experience life-related demands as a threat to their work functioning. By prioritizing their work role obsessively, these employees should also be less willing to capitalize on resources gained in the work domain to support their health and well-being, thus becoming less resilient to adversity. We thus suggest:

Hypothesis 4. The HP Dominant profile will display higher levels of psychological well-being and resilience than profiles characterized by lower levels of HP (Low Passion and OP Dominant).

Hypothesis 5. The OP Dominant profile will display lower levels of psychological well-being and resilience than profiles characterized by lower levels of OP (Low Passion and HP Dominant).

We also expect workers displaying high levels of HP and OP (Mixed Passion) to experience the benefits of HP without suffering from the detrimental outcomes of OP. In this regard, Li et al. (2020) found that the Mixed Passion profile was associated with higher levels of performance and subjective well-being than the OP Dominant profile. This can be explained by the fact that HP is associated with more frequent experiences of positive emotions (Vallerand, 2015; Vallerand and Houlfort, 2019) that help increase workers' well-being and to attenuate the undesirable effects of negative emotions. In doing so, on its own or in combination with OP, HP should lead to a more adaptive functioning than an OP Dominant profile. In this regard, research has also shown that HP can protect individuals against the detrimental effects of OP (Schellenberg et al., 2019). In contrast, high HP coupled with low OP (HP Dominant) should help employees enjoy the benefits of HP without experiencing the costs of OP (Schellenberg et al., 2021b). We thus expect that:

Hypothesis 6. The HP Dominant profile will display higher levels of psychological well-being and resilience than the Mixed Passion profile.

Hypothesis 7. The OP Dominant profile will display lower levels of psychological well-being and resilience than the Mixed Passion profile.

In the education and video game contexts, Schellenberg et al. (2019) showed that non-passionate individuals had more physical symptoms, lower physical health and psychological well-being, and similar levels of burnout than highly passionate ones. Schellenger et al. (2021b) found similar results when considering enjoyment, satisfaction with life, stress, and worry as outcomes. On the one hand and from a theoretical standpoint, high HP and OP (i.e., Mixed Passion) may be related to better functioning than low HP coupled with high OP (i.e., OP Dominant) due to the positive role of HP in the former profile (Vallerand, 2015). On the other hand, the detrimental outcomes associated with OP may also be more salient for Mixed Passion workers than for their Low Passion colleagues (Schellenberg et al., 2019). Due to these inconsistent findings (e.g., Schellenberg et al., 2019, 2021b), we leave as an open research question whether the Mixed Passion profile will display outcomes that differ from those of the Low Passion profile?

The Role of Culture: Indigenous versus Non-Indigenous

Although few studies have focused on cross-cultural similarities or differences in work passion (O'Keefe et al., 2022; Slemp et al., 2021; Weng et al., 2022), and none with a specific focus on Indigenous employees, some limited evidence highlights the need to test, rather than to assume, whether results will generalize across samples of Indigenous and non-Indigenous employees (e.g., Craven et al., 2016). For instance, two thirds of Australian Indigenous people live in rural and remote locations (Australian Institute of Health and Welfare, 2022) where there are limited opportunities to find work one is passionate about (Australian Council of Trade Unions, 2019; Jones et al., 2023). Instead, these Indigenous workers are often forced to take any available job in order to support their families and

communities, and as result, may experience higher levels of OP than non-Indigenous workers of whom the majority (71%) live in major cities (Australian Bureau of Statistics [ABS], 2013a). Rather, Indigenous people often find meaning in jobs that make a difference to their community as evidenced by the overrepresentation of Indigenous workers in service occupations (e.g., social work, education, health; Hunter and Gray, 2018). While this may indeed increase HP, along with it comes additional role pressures and feelings of personal responsibility, particularly in rural and remote settings where they frequently encounter their students, clients, and patients outside of the work setting (Lai et al., 2018). In these contexts, Indigenous workers often feel they need to be continuously available and have a strong cultural obligation to meet community expectations which translates into higher time demands, role conflict, increased stress and exhaustion, and ongoing difficulties in maintaining a good work-life balance (Haar and Brougham, 2013; Haar and Martin, 2022; Lai et al., 2018), all of which may increase their likelihood of experiencing OP and decreasing their likelihood of experiencing HP. Also undermining HP is the high level of racism, lack of cultural safety, and identity strain that Indigenous Australians experience in the workplace (Brown et al., 2020; Elias et al., 2023; Khatibi et al., 2023). As non-Indigenous employees do not have these negative experiences, share these cultural pressures, and often benefit from more resourceful work conditions, they may be more likely to experience lower OP and higher HP (McConnochie et al., 2012). Collectively, indirect evidence suggests that profiles characterized by high HP (e.g., HP Dominant) should be less prevalent among Indigenous employees, while profiles characterized by high OP (e.g., OP Dominant) should be more frequent.

In terms of predictors, some previous research suggests that the negative effects of job overload and role ambiguity on work passion (i.e., increasing OP and decreasing HP) may be attenuated in Indigenous employees due to their strong family and community support system (Javo et al., 2003), which provides them with a higher sense of control over how and when to transition between their work and other roles (Haar et al., 2012). Although these observations suggest that Indigenous employees might be better equipped to handle job overload and role ambiguity, it is also possible that the undesirable effects of job demands may be higher among Indigenous employees because of their need to cope with the additional sources of cultural pressure at work and the blending of their professional and community responsibilities as highlighted in the previous paragraph. Indeed, the accumulation of job demands and pressures is known to interfere with the ability to switch-off from work, which is required to experience HP, and instead increases the likelihood of experiencing OP as a result of these external contingencies (Vallerand, 2015). Prior research and theoretical guidance thus suggest contradictory hypotheses, suggesting that the effects of job demands could be either amplified or attenuated among Indigenous employees.

In relation to the outcomes, Carver and Scheier's (1990) control theory suggests that the benefits of HP might be impaired among Indigenous employees due to insufficient access to workplace support (Mills et al., 2010). Further, in less supportive contexts, and with a greater focus on family and community values (Javo et al., 2003), Indigenous employees that are obsessively passionate about their work might be at greater risk of experiencing work-family conflict (Harr et al., 2012), in turn leading to other detrimental outcomes (Huyghebaert-Zouaghi et al., 2022). In contrast, the lower community obligation and higher person-environment fit experienced by non-Indigenous employees is likely to decrease the undesirable effects of OP by helping them maintain clearer work-family boundaries (Harr and Brougham, 2022). These boundaries could help them replenish their resources, in turn thus increasing their expectancies of successfully attaining their professional goals as well as their psychological well-being (Hobfoll, 2011; Huyghebaert-Zouaghi et al., 2022).

Finally, the importance of pursuing a passionate career is an ideal embedded in independent Western culture and not as strongly valued in more interdependent cultures. For example, O'Keefe et al. (2022) found that individuals from independent cultures such as the United States were more likely to pursue a passionate career than those from Singapore (a more interdependent culture). In fact, employees from the interdependent culture were more likely to believe that pursuing a passionate career could be selfish and interfere with one's obligations. In contrast, employees from the independent culture were more likely to believe that pursuing a passionate career could lead to future happiness, success, and fulfillment, with results showing that higher levels of passion were indeed more strongly predictive of life satisfaction among Americans than Singaporeans. As the Indigenous Australian culture is more strongly characterized by an interdependent value system, as evidenced by the importance of ties with kin and community, it is possible that the strength of the associations between work passion profiles

and the well-being outcomes may be weaker in Indigenous workers relative to non-Indigenous workers.

Beyond these speculations, it is important to acknowledge that, due to the lack of prior theoretical and empirical guidance, we relied on a predominantly inductive approach when studying whether and how these profiles and their associations with predictors and outcomes will generalize across these two samples of employees (Morin et al., 2018). Still, valuable research insights can still emerge from the examination of well-supported research questions, even when it is impossible, due to lack of previous guidelines, to specify the exact nature of the expected results (Morin et al., 2018).

Method

This study relies on a cross-sectional sample of Indigenous and non-Indigenous Australian employees who completed self-report questionnaires related to their levels of work passion, predictors, and outcomes. Tests of profile similarity will be realized to contrast the nature of the work passion profiles and their associations with predictors and outcomes across both samples.

Participants

Participants were 1,196 adults (61.0% female) aged 18 to 81 years (M_{age} = 43.35, SD_{age} = 12.83), including 591 Indigenous (66.0% female; M_{age} = 41.87) and 605 non-Indigenous (56.0% female; M_{age} = 44.79) Australians. More than half (58.2%; Indigenous = 49.9%; Non-Indigenous = 66.3%) has completed at least a bachelor degree. Participants mainly occupied a permanent position (67.6%; Indigenous = 65.8%; Non-Indigenous = 69.3%), worked full-time (77.7%; Indigenous = 78.3%; Non-Indigenous = 77.0%), and had an average tenure in their position of 5.51 years (Indigenous = 4.56 years; Non-Indigenous = 6.44 years). Almost two thirds of the sample were employed in professional or managerial roles (67.5%; Indigenous = 63.1%; Non-Indigenous = 71.7 %) as defined by the Australian and New Zealand Standard Classification of Occupations (ANZSCO; ABS, 2013b) while the remaining worked in the other six major employment categories (i.e., sales; technicians/trades; community/personal service; clerical/administrative; machinery operators and drivers; and laborers).

Procedure

Participants were recruited through workplaces, newspapers, social media platforms, Indigenous organizations and networks, and word-of-mouth. As Indigenous Australians make up only 3.3% of the Australian population (ABS, 2018) purposeful sampling was undertaken with recruitment efforts predominantly focused on Indigenous media (e.g., Koori Mail), Indigenous organizations (e.g., Reconciliation Australia), and government and nongovernment organizations employing a large number of Indigenous individuals. Although we specifically targeted organizations employing a high percentage of Indigenous workers, non-Indigenous employees still made up the vast majority of the employees working in these organizations. The non-Indigenous sample was thus simultaneously recruited through the same organizations. Organizations that agreed to be involved were emailed the study information and the link to an online Qualtrics survey, which they forwarded to their employees. Upon accessing the survey platform, participants had to indicate their agreement to participate before completing the questionnaires. Our decision to rely on an online survey (rather than individual or group interviews or laboratory experiments) was predicated on the cost-efficiency of this method in providing a quick access to a reasonably large sample of participants while limiting the toll taken on participating organizations and maximizing the confidentiality of the process. Moreover, extensive research evidence supports the value of questionnaires to obtain accurate information about employees' work passion (Vallerand and Houlfort, 2019). All responses were anonymous, and all information provided was treated in accordance with guidelines outlined in the National Statement on Ethical Conduct in Human Research 2007 (National Health and Medical Research Council et al., 2018). This study was approved by the research ethics committee of the fourth author University.

Measures

Items were rated on a six-point scale (1-*Strongly disagree* to 6-*Strongly agree*), except for psychological well-being (five-point scale from 1- *None of the time* to 5- *All of the time*).

Work passion (profile indicators). We assessed HP (six items; e.g., *My work is well integrated in my life*; α = .860; $α_{indigenous}$ = .846; $α_{non-indigenous}$ = .874) and OP (six items; e.g., *My work is the only thing that really turns me on*; α = .847; $α_{indigenous}$ = .847; $α_{non-indigenous}$ = .848) using Vallerand et al.'s (2010) scale.

Role ambiguity (predictor). Role ambiguity at work was measured using the four-item role clarity subscale of the Haynes et al.'s (1999) measure of work characteristics (e.g., *I have clear planned goals and objectives for my job*, reversed item; α = .837; $α_{indigenous}$ = .851; $α_{non-indigenous}$ = .819).

Job overload (predictor). Job overload was measured using a five-item scale (e.g., *Often, my days are so busy that I don't have time for lunch*; α = .778; $α_{indigenous}$ = .777; $α_{non-indigenous}$ = .782) developed by Ivancevich and Matteson (1980).

Resilience at work (outcome). Workplace resilience was measured using an adapted version of the Buoyancy Scale developed by Martin and Marsh (2008). This scale included six items (e.g., *I'm good at bouncing back from disappointments in my work*; α = .877; $α_{indigenous}$ = .881; $α_{non-indigenous}$ = .873) designed to capture everyday resilience at work.

Psychological well-being (outcome). Psychological well-being was measured with the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS; Stewart-Brown et al., 2009). Respondents reported how frequently they experienced seven positively-worded items (e.g., *I have been feeling useful*; α = .842; $α_{indigenous}$ = .843; $α_{non-indigenous}$ = .836) over the last four weeks.

Analyses

Preliminary Analyses

The psychometric properties of all multi-item measures were verified in preliminary factor analyses. Details on these analyses (factor structure, measurement invariance across groups of Indigenous and non-Indigenous employees, composite reliability, and factor correlations) are reported in the online supplements (Tables S1 to S5). These results revealed that the HP, OP, predictor and outcome factors were well-defined by satisfactory factor loadings and associated with satisfactory composite reliability coefficients. The main analyses relied on factor scores saved from these preliminary analyses (Meyer and Morin, 2016; Morin et al., 2016b), obtained from models specified as invariant across groups (Millsap, 2011), and estimated in standardized units ($SD = 1$; $M = 0$). Factor scores provide a partial control for unreliability (Skrondal and Laake, 2001) and preserve the structure of the measurement model (e.g., invariance; Morin et al., 2016a).

Model Estimation

All models were estimated in Mplus 8.8 (Muthén and Muthén, 2022) using the maximum likelihood robust (MLR) estimator and full information maximum likelihood (FIML; Enders, 2010) to handle missing responses. Missing responses at the item level remained relatively scarce (0.08% to 4.52%, $M = 2.54\%$). LPA were estimated using 5000 random sets of start values, 1000 iterations, and 200 final stage optimizations (Morin and Litalien, 2019).

Latent Profile Analyses (LPA)

Solutions including one to eight profiles were estimated separately in each sample while allowing the means of the indicators (HP and OP) to be freely estimated (Morin and Litalien, 2019). Despite the advantages of freely estimating the means and variances of the indicators across profiles (Diallo et al., 2016), these alternative models were associated with important estimation problems (e.g., nonconvergence, impossible parameter estimates), supporting the superiority of our more parsimonious specification (Diallo et al., 2016; Morin and Litalien, 2019).

Model Comparison and Selection

The decision of how many profiles to retain relies on a consideration of whether the profiles are meaningful, aligned with theory, and statistically adequate (Marsh et al., 2009; Morin, 2016). Statistical indicators (McLachlan and Peel, 2000) can also be consulted. A lower value on the Akaïke Information Criterion (AIC), Consistent AIC (CAIC), Bayesian Information Criterion (BIC), and sample-size Adjusted BIC (ABIC) indicates better fitting models. Statistically significant *p*-values on the adjusted Lo, Mendell, and Rubin's (2001) Likelihood Ratio Test (aLMR), and Bootstrap Likelihood Ratio Test (BLRT) also suggest better fit relative to a model with one fewer profile.

Statistical research has shown that the BIC, CAIC, ABIC, and BLRT, but not the AIC and aLMR, were efficient to indicate the true number of latent profiles (e.g., Diallo et al., 2016, 2017). The AIC and aMLR will not be used for model assessment. These tests all present a strong sample size dependency (Marsh et al., 2009), and thus often fail to converge on a specific number of profiles. When this happens, a graphical display (i.e., an elbow plot) can be used to locate the point at which the decrease in the value of the information criteria reaches a plateau (Morin et al., 2011). Finally, the classification accuracy (from 0 to 1) is summarized by the entropy.

Tests of Profile Similarity

Assuming that the same number of profiles are extracted across groups (Morin and Wang, 2016), the two group-specific LPA solutions will then be combined into a single multi-group LPA model for tests of profile similarity across samples of Indigenous and non-Indigenous employees (Morin and

Litalien, 2017; Morin et al., 2016b). These sequential tests start by assessing whether the same number of profiles can be identified in each group. The two sample-specific solutions are then combined in a multi-group model of *configural* similarity. Equality constraints are then imposed on the within-profile means (*structural* similarity), variances (*dispersion* similarity), and size (*distributional* similarity). These tests rely on the CAIC, BIC, and ABIC, so that each type of similarity can be considered supported as long as two indicators decrease following the integration of equality constraints (Morin et al., 2016b).

Predictors and Outcomes of Profile Membership

Starting from the most similar multi-group model, we then assessed the extent to which the relations between the profiles, the predictors (*predictive* similarity), and the outcomes (*explanatory* similarity) remained the same across groups. For these tests, the predictors and outcomes were directly included into the final LPA solution. Job overload and role ambiguity were first considered in a series of three predictive models in which their associations with profile membership were specified using a multinomial logistic regression link function. First, we estimated a null effects model assuming no relations between these variables and the profiles. Second, the effects of these variables were freely estimated and allowed to vary across groups. Finally, a model of *predictive* similarity was estimated by constraining these associations to be equal across groups.

Group-specific outcome measures (psychological well-being and resilience at work) were allowed to vary as a function of profile membership. *Explanatory* similarity was assessed by constraining these associations to be equal across groups. The multivariate delta method was used to test the significance of between-profile differences in outcome levels (Raykov and Marcoulides, 2004).

Results

Latent Profile Analyses (LPA)

The statistical indicators associated with each of the group-specific LPA solutions are reported in Table S6, and graphically displayed in Figures S1 and S2, in the online supplements. These indicators failed to pinpoint a clearly dominant solution across groups. Among Indigenous employees, the CAIC and BIC suggested a three-profile solution, the ABIC suggested a five-profile solution, and the BLRT failed to support any solution. Among non-Indigenous employees, the CAIC, BIC, and ABIC all supported a four-profile solution, while BLRT failed to support any solution. However, the elbow plots revealed a relatively clear plateauing in the decrease of these values of these indicators around three profiles for Indigenous employees, and four profiles for non-Indigenous employees. Solutions including three to five profiles were thus more carefully examined. This examination first revealed that all solutions were already highly similar across groups, and that the addition of profiles added meaning to the model up to four profiles in both groups. In contrast, adding a fifth profile resulted in the arbitrary separation of one already identified profile into smaller ones with a comparable shape. On this basis, the four-profile solution was retained in both groups for further analyses.

The statistical indicators associated with all multi-group models are reported in Table 1. Starting with a model of *configural* similarity including four profiles per time point, equality constraints were progressively integrated. The next models of *structural*, *dispersion*, and *distributional* similarity all resulted in decreases in the value of the information criteria and were thus supported by the data. The model of *distributional* similarity was thus retained for interpretation and is graphically represented in Figure 1 (detailed parameter estimates are reported in Tables S7 and S8 of the online supplements). As shown in Table S8 of the online supplements, this solution presented a high level of classification accuracy, ranging from 76.6% to 83.3% across profiles in the group of Indigenous employees and from 82.5% to 89.8% in the group of non-Indigenous employees, consistent with the moderately high entropy value of this solution (.708).

Profile 1 displays average levels of HP and moderately high levels of OP. This *OP Dominant* profile characterizes 36.30% of the participants. Profile 2 displays moderately high levels of HP and very high levels of OP. This *Mixed Passion-OP Dominant* profile characterizes 8.98% of the participants. Profile 3 displays very low levels of HP and low levels of OP. This *Low Passion* profile characterizes 8.94% of the participants. Finally, Profile 4 displays close to average levels of HP and moderately low levels of OP. This *HP Dominant* profile characterizes 45.78% of the participants.

Predictors of Profile Membership

As shown in Table 1, the associations between our theoretical predictors and profile membership generalized across samples, thus supporting the model of *predictive* similarity. The results from this

model are reported in Table 2. These results first indicated that role ambiguity predicted a higher likelihood of membership into the *OP Dominant* (1) profile relative to the *Mixed Passion-OP Dominant* (2) and *HP Dominant* (4) profiles, as well as into the *Low Passion* (3) profile relative to the *OP Dominant* (1), *Mixed Passion-OP Dominant* (2), and *HP Dominant* (4) profiles. In addition, job overload predicted a lower likelihood of membership into the *HP Dominant* (4) profile relative to the *OP Dominant* (1), *Mixed Passion-OP Dominant* (2), and *Low Passion* (3) profiles, as well as a higher likelihood of membership into the *Mixed Passion-OP Dominant* (2) profile relative to the *OP Dominant* (1) and *Low Passion* (3) ones.

Outcomes of Profile Membership

As shown in the bottom section of Table 1, the model of *explanatory similarity* resulted in the lowest values on the information criteria and was thus supported by the data (consistent with the presence of associations between profiles and outcomes that generalize across both samples). The mean profile-specific levels of each outcome are reported in Table 3 and indicate clear differences across profiles. Thus, Profiles 2 (*Mixed Passion-OP Dominant*) and 4 (*HP Dominant*) equally displayed the highest levels of psychological well-being and resilience at work, followed by Profile 1 (*OP Dominant*), and finally by Profile 3 (*Low Passion*).

Discussion

This study sought to increase our understanding of work passion via the identification of the HP and OP profiles observed among Indigenous and non-Indigenous Australian employees. We also documented the criterion-related validity of these profiles in relation to theoretically relevant predictors (i.e., job overload and role ambiguity) and outcomes (i.e., psychological well-being and resilience at work), while also considering whether and how these associations would generalize among Indigenous and non-Indigenous Australian employees. Our results have theoretical implications related to the dualistic model of passion (Vallerand, 2015; Vallerand and Houlfort, 2019) and to the *quadripartite* model (Schellenberg et al., 2019), in addition to their practical implications.

Work Passion Profiles

Our results revealed that four profiles best summarized the work passion configurations observed in both samples of employees: (1) *OP Dominant*, (2) *Mixed Passion-OP Dominant*, (3) *Low Passion*, and (4) *HP Dominant*. Although these results only partially supported our hypotheses, all profiles were consistent with the *quadripartite* model of passion (Gillet et al., 2022; Schellenberg et al., 2019) and with previous results (Li et al., 2020). In addition to providing evidence of replicability for these prior results, our results demonstrated the generalizability of these profiles across samples of Indigenous and non-Indigenous Australians. By using person-centered analyses to account for the joint role of HP and OP, we did not rely on a rigid classification of participants into one of the four configurations highlighted in the *quadripartite* model (Schellenberg et al., 2019). Thus, rather than assuming that participants' HP and OP would be necessarily high or low (e.g., such as in the *Mixed Passion* profile), this approach made it possible to identify subpopulations of employees displaying moderate levels of HP and OP. This approach thus revealed that the *HP Dominant* profile only displayed moderately high HP and moderately low OP, thereby allowing us to refine the theoretical expectations of the *quadripartite* model (Schellenberg et al., 2019) in showing that very high (and pure) levels of HP seemed quite rare. We also found a *Mixed Passion-OP Dominant* profile characterized by moderately high HP and very high OP, rather than very high levels of both HP and OP, thus also supporting the idea that very high levels of HP might be less frequent than expected (Schellenberg et al., 2019). This last profile also extends knowledge on the dualistic model of passion (Vallerand, 2015; Vallerand et al., 2003) about the natural synergy between HP and OP, suggesting that HP and OP might be mutually exclusive or incompatible at high levels.

Predictors of Work Passion Profiles

In line with prior research (Lavigne et al., 2014; Thorgren and Wincent, 2013; Trépanier et al., 2014), our results first showed that job overload predicted a lower likelihood of membership into the *HP Dominant* relative to the three other profiles, in accordance with the idea that overworked employees can rarely find harmony in their passion about work (Stroe et al., 2018).

In relation to role ambiguity, our results showed that this job demand seemed to play the dual role of decreasing HP and increasing OP, being associated with a lower likelihood of membership into the *HP Dominant* profile and with a higher likelihood of membership into the *OP Dominant* profile. These results are consistent with previous evidence showcasing the detrimental role of role ambiguity

(Collewaert et al., 2016; Gillet et al., 2016). Because role ambiguity puts increasing pressure on employees by leading them to question how to behave at work (Gillet et al., 2015), employees facing role ambiguity are more likely to succumb to work pressures during their off-job time, making it harder for them to withdraw from their work when they should be recovering from it (Braukmann et al., 2018). Employees facing such pressures may thus come to devote an excessive amount of time to their work at the expense of their personal life, thus making it harder for them to experience harmony between both life domains (i.e., HP), thereby increasing their likelihood of becoming obsessive about their work (i.e., OP; Vallerand, 2015; Vallerand and Houlfort, 2019). Role ambiguity is also associated with the frustration of employees' psychological needs for autonomy, competence, and relatedness, and thus may lead employees to provide a compensatory response by developing rigid behavioral patterns (such as OP) to help them feel a sense of predictability, security, and structure (Vansteenkiste and Ryan, 2013). By doing so, they can also experience relief and satisfaction because their self-esteem is contingent on their work-related tasks, accomplishments, and successes (Moller et al., 2006). Previous studies have shown that OP was a compensatory response to frustrated needs to try to regain control over the activity (Lalande et al., 2017; Tóth-Király et al., 2019).

Moreover, role ambiguity was also associated with a higher likelihood of membership into the *Low Passion* profile relative to the other three profiles, while job overload was associated with a higher likelihood of membership into the *Low Passion* profile relative to the *HP Dominant* one. These results confirm that job demands are associated with decreases in positive dispositions (i.e., HP and/or OP) towards work. These observations are compatible with research showing that job demands hinder employees' ability to attain their personal and professional goals (Collewaert et al., 2016). Furthermore, job demands are also associated with wasted energy expenditures, which in turn lead to a quicker depletion of employees' resources (Hobfoll, 2011). This lack of resources to allocate to work is likely to decrease their level of passion for their work (Trépanier et al., 2014).

Conversely, job overload was also associated with a higher likelihood of membership into the *Mixed Passion-OP Dominant* profile. Overworked employees tend to position work at the core of their life priorities and to invest more time and efforts in their work role, which can become an important source of life fulfillment (Tóth-Király et al., 2021), consistent with the positioning of job overload as a challenging type of job demand, rather than as a purely hindering one (Albrecht, 2015). This representation of job overload is consistent with the observation that it tends to be associated with higher levels of passion for work, irrespective of the type of passion (i.e., HP and OP; Gillet et al., 2017; Vallerand, 2015). What remains to be investigated, however, is the conditions under which job overload is likely to lead to the emergence of profiles dominated by HP (*HP Dominant*) or OP (*OP Dominant* and *Mixed Passion-OP Dominant*), which may depend on the extent to which one's motives for working can be conceptualized as primarily driven autonomously, by a series of internal or external contingencies, or both (e.g., Gillet et al., 2018).

Outcomes of Profile Membership

In terms of outcomes, the *HP Dominant* and *Mixed Passion-OP Dominant* profiles were equally found to be associated with the highest levels of psychological well-being and resilience at work, followed by the *OP Dominant* profile, and finally by the *Low Passion* profile. These findings clearly support the positive effects of HP identified in previous research (e.g., Houlfort et al., 2018; Schellenberg et al., 2019). These results are also consistent with the idea that harmoniously passionate employees can establish adaptive boundaries between their work and other important life areas, in turn leading to better levels of functioning (Vallerand and Houlfort, 2019).

As hypothesized, the *HP Dominant* profile was associated with higher levels of psychological well-being and resilience at work than the *OP Dominant* profile. This is because obsessively passionate workers tend to engage in their work with a rigid persistence, making it harder for them to establish clear boundaries between their work and other life domains and to withdraw cognitively and emotionally from their work during their off-job time (Braukmann et al., 2018), in turn increasing the likelihood that their work will impair their personal, family, and work functioning (Houlfort et al., 2018). Conversely, our findings confirm the need to better differentiate the *Mixed Passion-OP Dominant* and *HP Dominant* profiles, which mainly differ in their levels of OP. Indeed, our results suggest that moderately high levels of HP may be sufficient to compensate for the harmful effects of the very high OP observed in the *Mixed Passion-OP Dominant* profile. Past research has also shown that HP was the most important predictor of employees' functioning (Lavigne et al., 2014; Vallerand et

al., 2010), possibly because of its known implications for positive affects (Vallerand, 2010).

Interestingly, the *Mixed Passion-OP Dominant* profile displayed higher levels of psychological well-being and resilience at work than the *Low Passion* profile. Similar results were previously reported by Schellenberg et al. (2021b) in the sport area, where the *OP Dominant* profile was found to be associated with greater attainment of performance goals than the *Low Passion* profile. This result suggests that moderately high OP (i.e., *OP Dominant*) may be related to higher functioning than low OP (i.e., *Low Passion*) due to the ability to benefit from resources gained in one domain (e.g., work) to support activities conducted in other domains (i.e., family). Though OP is generally linked to detrimental consequences (Vallerand and Houlfort, 2019), Amiot et al. (2006) found that it could be associated with psychological adjustment in highly competitive environments, while Lafrenière et al. (2009) showed that it was positively related to life satisfaction following success in one's passionate activity. In any case, these results do not suggest that the *OP Dominant* profile is necessarily desirable. Rather, they simply suggest that it might be preferable to be passionate about one's work, no matter the dominant type of passion, than to experience a complete lack of passion for work.

Generalizability to Indigenous and Non-Indigenous Employees

Beyond supporting the replicability of the four profiles and their association with predictors and outcomes in relation to previous research, our results also supported the generalizability of these profiles and their criterion-related validity across samples of Indigenous and non-Indigenous Australian employees. In this regard, these results contrast with previous studies suggesting that work passion may vary as a function of one's culture (O'Keefe et al., 2022; Weng et al., 2022), or with the idea that characteristics of an Indigenous culture may protect employees' well-being (e.g., Shakespeare et al., 2021). However, these results are aligned with prior research demonstrating the adaptive effects of a profile characterized by moderate to high levels of HP and low levels of OP on a set of work-related indicators of well-being in samples of employees working in very distinct settings and from different cultures (Gillet et al., 2022; Li et al., 2020).

Theoretical and Research Contributions

The generalizability of our findings across samples of Indigenous and non-Indigenous Australian employees, their theoretical conformity (Schellenberg et al., 2019), and their consistency with those observed in previous research (Li et al., 2020) suggest that the profiles identified in this study are likely to reflect core psychological mechanisms involved in the experience of work passion among employees generally, rather than sample- or culture-specific phenomena. As a result, this evidence of replicability supports the likely generalizability of intervention strategies targeting specific profiles of work passion (e.g., Meyer and Morin, 2016). Moreover, our reliance on a person-centered approach allowed us to refine the theoretical expectations of the *quadripartite* model of passion (Schellenberg et al., 2019). More precisely, our results suggest that the *HP Dominant* profile might be characterized by moderately high HP rather than by very high HP. Similarly, the *Mixed Passion* profile might be characterized by moderately high HP and very high OP, rather than by very high HP and OP. However, it remains important to investigate whether and how similar profiles will be identified across occupations (e.g., services, sales, production) and countries/cultures (e.g., South America, Europe, Asia), particularly in relation to the *HP Dominant* and *Mixed Passion-OP Dominant* profiles.

In terms of predictors, our results confirmed the idea that job overload and role ambiguity are job demands with negative effects on HP (e.g., Lavigne et al., 2014). Nevertheless, these same job demands seem to also contribute to limit OP (i.e., membership into the *Low Passion* profile), in line with prior research showing that job demands contribute to deplete the resources that are needed for employees to be passionate (Hobfoll, 2011; Trépanier et al., 2014). However, future research is needed to more extensively consider how different forms of demands and resources might influence HP and OP profiles, and try to unpack the mechanisms underlying these relations.

Although our findings confirmed the positive effects of HP, they did not did not fully confirm the detrimental effects of OP (Vallerand, 2015; Vallerand and Houlfort, 2019). Indeed, our results revealed no differences in outcome levels between the *Mixed Passion-OP Dominant* and *HP Dominant* profiles (differing in their levels of OP). Future research will be needed to better unpack these mechanisms, and to achieve a clearer differentiation between these two profiles. Additional studies are also needed to examine whether and how the effects of the work passion profiles observed in this study generalize to other positive (e.g., organizational commitment, organizational citizenship behaviors) and detrimental (e.g., ill-being, turnover) outcomes.

Finally, and importantly, our study supports the idea that work passion is a self-defining characteristic (Vallerand et al., 2003) involved in employees' adaptation to the work environment (Trépanier et al., 2014), and that it plays this role irrespective of one's culture. By providing evidence of generalizability, our results are an important step forward in work passion research and intervention, supporting the desirability of generic interventions likely to be relevant to many employees. However, it remains important to note that the social, work, cultural, or administrative contexts in which Indigenous populations evolve vary greatly across countries, while sharing some similarities. Thus, it would be important to investigate whether and how these results generalize to other Indigenous populations and minority-majority group comparisons.

Practical Implications

From an intervention perspective, our findings suggest that managers should be particularly attentive to workers perceiving high levels of job demands. Indeed, our results show that these workers were least likely to belong to the *HP Dominant* profile (the most positive outcomes) and most likely to belong to the *Low Passion* profile (the worst outcomes). Therefore, changes designed to reduce role ambiguity and job overload could be leveraged to nurture more desirable profiles, and more generally a better psychological functioning at work for Indigenous and non-Indigenous employees. At the organizational level, these job demands could be reduced by stating clear segmentation norms and encouraging balanced and healthier lifestyles (Kreiner, 2006), by creating well-being-oriented work environments, and by offering enabling versus enclosing work-life policies (Bourdeau et al., 2019). For example, organizations could sign a collective agreement establishing a right to disconnect for employees and actively support the value of disconnection outside of work hours. The implementation of organization-wide freeze on out-of-hours emails could also help ensure disconnection. Role ambiguity and job overload could also be decreased at the individual level through coaching or counseling (Van Gordon et al., 2017). For instance, employees may be helped to reflect on what is most important to them by making a list of their top priorities at work and at home and be encouraged to turn these priorities into concrete and measurable goals. They can also be encouraged to plan their tasks and activities for the next day at the end of each working day, while focusing on the need to remain realistic and on the importance of maintaining boundaries between work and their personal life.

Interventions have been proposed to promote HP for work while limiting the potentially obsessive nature of this passion. For instance, Cheon et al. (2020) found that teachers who learned how to support the autonomy of others and to provide structure in an autonomy-supportive way (e.g., by communicating clear expectations, offering step-by-step guidance, providing feedback) showed longitudinal gains in their own HP for their work. Forest et al. (2012) also showed that an intervention including three activities aiming at developing employees' knowledge and use of their signature strengths at work successfully increased their use of these signature strengths. These increases were also related to increases in their levels of HP for their work, which in turn led to higher levels of well-being. More generally, it might be useful to encourage more efficient work recovery processes to protect employees' professional well-being and to facilitate positive spillover between their work and personal roles (Huyghebaert-Zouaghi et al., 2022). Indeed, research has shown that efficient work recovery can be developed and trained. For instance, participants involved in a recovery training program (e.g., thinking about and discussing their work-related stress, recovery experiences, and barriers to efficient recovery) displayed better recovery and sleep quality (Hahn et al., 2011). Similar results have been reported for mindfulness-based interventions (e.g., guided mindfulness meditation and exercises; Hülsheger et al., 2015). Our results suggest that similar interventions might be worth considering among Indigenous and non-Indigenous Australians workers.

Limitations and Future Directions

The present research has some limitations. First, the fact that this study relied solely on self-report measures increases the risk of social desirability and self-report biases. To alleviate these concerns, it would be useful to consider incorporating objective measures (e.g., organizational data on work performance and absenteeism) and informant ratings of employees' functioning (e.g., colleagues, supervisors, spouse). Second, we relied on a cross-sectional design, which makes it impossible to establish the temporal stability of these profiles, or to determine the directionality or causality of the relations observed in this study. Although previous studies support some of the proposed associations (e.g., Vallerand, 2015; Vallerand and Houlfort, 2019), we cannot exclude the possibility of reciprocal or inverse relations between certain variables. Future studies should examine the nature of these relations using methods designed to substantiate the temporal ordering of the observed associations.

Third, although we relied on a validated theoretical perspective to determine the choice of predictors likely to act on profile membership, our analysis remains based on a limited number of theoretical antecedents, particularly with respect to job demands. Further studies are needed to extend our understanding of predictors of work passion profiles, particularly in the personal life domain (e.g., personal life and family stressors, family orientation, and even cultural characteristics). Likewise, it would be important to expand upon the present results by also considering additional indicators of functioning that are specific to one's personal life (e.g., personal life satisfaction, family involvement, proactive investment in leisure activities). Finally, the present study was conducted among a mixed sample of Indigenous and non-Indigenous employees working in Australia. Further research is thus needed to generalize the current results in different work settings, countries, and cultures.

Key Practical and Research Implications

Improving the work conditions of minorities and marginalized groups is extremely important. Identifying where there are differences and similarities across employee groups is part of this process. Our results demonstrated that work passion profiles, their determinants, and their outcomes generalize to samples of Australian Indigenous and Non-Indigenous employees. Without challenging the importance of improving the work conditions of minorities and marginalized groups, our results suggest passion as a potentially viable common driver of well-being.

We recommend that **organizations** attempt to reduce employees' exposure to ambiguous work roles and work overload by stating clear segmentation norms, encouraging balanced and healthier lifestyles, creating well-being-oriented work environments, and offering enabling versus enclosing work-life policies. Organization-wide freeze on out-of-hours emails can also help ensure disconnection. **Employees** displaying a lack of passion for their work may also benefit from counseling and coaching interventions to help them find a better form of balance at work.

Governments may consider adopting work-related policies acknowledging employees' right to disconnect from work outside of their work hours. Likewise, **educational institutions** involved in the training of managers could highlight the benefits of work passion and the harmful nature of placing too much pressure upon employees, while reinforcing the benefits of employee well-being for the organization. As part of their training, it seems important to allow **managers** to learn concrete strategies to help them support their employees in this regard. Together, these efforts would support employees in developing more desirable work passion profiles.

From a **research** perspective, our results provided evidence that the work passion profiles, their determinants, and their outcomes seemed to generalize well across diverse populations. **Future research** efforts could benefit from: further tests of generalizability to other diversified samples of employees (e.g., diverse population with differing socio-economic situations or geographical locations); from a more in-depth consideration of the mechanisms involved in the links between job demands, the employees passion profiles, and the outcomes; from the adoption of a longitudinal perspective in order to better disentangle issues of directionality; and if the same interventions for low passion generalize across diverse populations.

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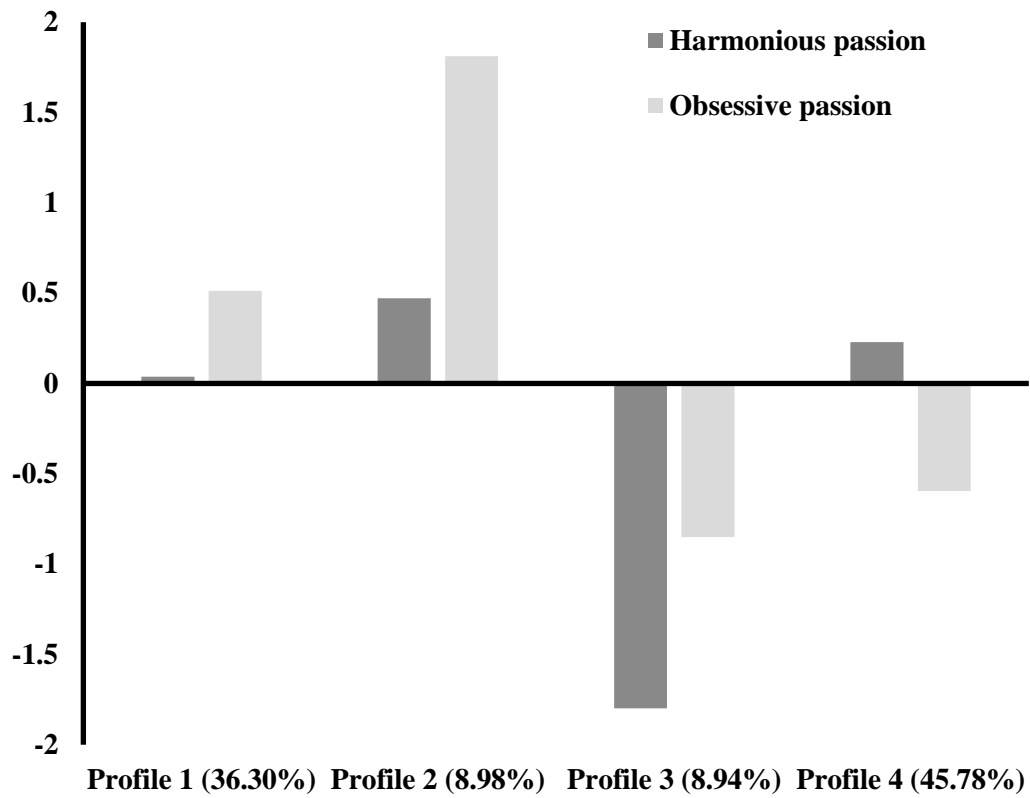
Figure 1. Final Four-Profile Solution
Note. Profile indicators are factors scores estimated in standardized units (*M* = 0; *SD* = 1); Profile 1: *Obsessive Passion Dominant*; Profile 2: *Mixed Passion-Obsessive Passion Dominant*; Profile 3: *Low Passion*; and Profile 4: *Harmonious Passion Dominant.*

Table 1

Results from the Time-Specific and Longitudinal Models

Model	LL	#fp	Scaling	AIC	CAIC	BIC	ABIC	Entropy
Final Latent Profile Analyses								
Indigenous employees	-1560.306	13	1.001	3146.613	3216.576	3203.576	3162.306	.670
Non-Indigenous employees	-1518.594	13	1.036	3063.188	3133.456	3120.456	3079.184	.750
Multi-Group Latent Profile Analyses								
Configural Similarity	-3907.822	27	1.018	7869.645	8033.987	8006.987	7921.224	.710
Structural Similarity	-3917.037	19	1.011	7872.075	7987.723	7968.723	7908.372	.708
Dispersion Similarity	-3918.816	17	1.029	7871.632	7975.107	7958.107	7904.108	.704
Distributional Similarity	-3922.835	14	1.021	7873.670	7958.885	7944.885	7900.415	.708
Predictive Similarity: Predictors								
Null Effects Model	-7242.261	9	1.171	14502.521	14557.771	14548.771	14520.183	.677
Free Relations with Predictor	-7032.288	21	1.168	14106.577	14235.493	14214.493	14147.787	.721
Equal Relations with Predictor	-7034.998	15	1.172	14099.995	14192.078	14177.078	14129.431	.720
Explanatory Similarity								
Free Relations with Outcomes	-7051.130	18	1.523	14138.260	14248.759	14230.759	14173.583	.744
Equal Relations with Outcomes	-7072.957	10	1.550	14165.914	14227.303	14217.303	14185.538	.737

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

Table 2

Results from the Predictive Analyses

Predictors	Profile 1 vs 4		Profile 2 vs 4		Profile 3 vs 4		Profile 1 vs 3		Profile 2 vs 3		Profile 1 vs 2	
	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR	Coef. (SE)	OR
Role ambiguity	.686 (.140)**	1.985	.280 (.227)	1.323	1.600 (.173)**	4.952	-.914 (.138)**	.401	-1.320 (.237)**	.267	.406 (.207)*	1.501
Job overload	1.456 (.141)**	4.288	2.647 (.253)**	14.112	1.124 (.289)**	3.078	.331 (.237)	1.393	1.523 (.307)**	4.585	-1.191 (.215)**	.304

Note. * $p < .05$; ** $p < .01$; SE: Standard error of the coefficient; OR: Odds ratio; 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; Indicators of role ambiguity and job overload are factor scores with a standard deviation of 1 and a mean of 0; Profile 1: *Obsessive Passion Dominant*; Profile 2: *Mixed Passion-Obsessive Passion Dominant*; Profile 3: *Low Passion*; and Profile 4: *Harmonious Passion Dominant*.

Table 3

Associations between Profile Membership and the Outcomes Taken from the Model of Explanatory Similarity (Equal across Time Points)

	Profile 1	Profile 2	Profile 3	Profile 4	Summary of Statistically
	M [CI]	M [CI]	M [CI]	M [CI]	Significant Differences
Psychological well-being	-.289 [-.425; -.154]	.183 [-.140; .506]	-1.347 [-1.552; -1.142]	.438 [.372; .505]	2 = 4 > 1 > 3
Resilience at work	-.220 [-.354; -.086]	.313 [.028; .597]	-1.368 [-1.641; -1.094]	.364 [.297; .432]	2 = 4 > 1 > 3

Note. M: Mean; CI: 95% confidence interval; Indicators of psychological well-being and resilience at work are factor scores with a mean of 0 and a standard deviation of 1; Profile 1: *Obsessive Passion Dominant*; Profile 2: *Mixed Passion-Obsessive Passion Dominant*; Profile 3: *Low Passion*; and Profile 4: *Harmonious Passion Dominant*.

Online Supplements for:
On the Nature, Predictors, and Outcomes of Work Passion Profiles: A Comparative Study
Across Samples of Indigenous and Non-Indigenous Australian Employees

Preliminary Measurement Models

Analyses

Preliminary measurement models were estimated in Mplus 8.8 (Muthén & Muthén, 2022) using the maximum likelihood robust (MLR) estimator, which provides parameter estimates, standard errors, and goodness-of-fit that are robust to the non-normality of the response scales used in the present study. These models were estimated in conjunction with full information maximum likelihood (FIML; Enders, 2010) to handle missing data. Due to the complexity of the models underlying all constructs assessed in the present study, preliminary analyses were conducted separately for work passion and for our multi-item predictors (job overload and role ambiguity) and outcomes (resilience at work and psychological well-being) measures.

For all models, sequential tests of measurement invariance were conducted (Millsap, 2011): (1) configural invariance; (2) weak invariance (loadings); (3) strong invariance (loadings and intercepts); (4) strict invariance (loadings, intercepts, and uniquenesses); (5) invariance of the latent variance-covariance matrix (loadings, intercepts, uniquenesses, correlated uniquenesses, and latent variances-covariances); and (6) latent means invariance (loadings, intercepts, uniquenesses, correlated uniquenesses, latent variances-covariances, and latent means). These tests were conducted across groups of Indigenous and non-Indigenous employees.

Given the known oversensitivity of the chi-square test of exact fit (χ^2) to sample size and minor model misspecifications (e.g., Marsh et al., 2005), we relied on sample-size independent goodness-of-fit indices to describe the fit of the alternative models (Hu & Bentler, 1999): The comparative fit index (CFI), the Tucker-Lewis index (TLI), as well as the root mean square error of approximation (RMSEA) and its 90% confidence interval. Values greater than .90 for the CFI and TLI indicate adequate model fit, although values greater than .95 are preferable. Values smaller than .08 or .06 for the RMSEA respectively support acceptable and excellent model fit. Invariance was assessed by considering changes in CFI, TLI, and RMSEA (Chen, 2007; Cheung & Rensvold, 2002). A ΔCFI/TLI of .010 or less and a ΔRMSEA of .015 or less between a more restricted model and the previous one support the invariance hypothesis. Finally, we also report composite reliability coefficients associated with each of the a priori factors, calculated from the standardized parameters using McDonald (1970) omega (ω) coefficient:

$$\omega = \frac{(\sum|\lambda_i|)^2}{[(\sum|\lambda_i|)^2 + \sum \delta_i]}$$

where $|\lambda_i|$ are the standardized factor loadings associated with a factor in absolute values, and δi, the item uniquenesses.

Work Passion

For the work passion questionnaire, we first estimated, separately for Indigenous and non-Indigenous participants, a confirmatory factor analysis (CFA) solution in which items were only allowed to define their a priori factor (harmonious passion: HP; and obsessive passion: OP), while allowing these factors to correlate. Following Marsh et al.'s (2013, also see Tóth-Király et al., 2017) recommendations in relation to this measure, this solution was contrasted with an exploratory structural equation modeling (ESEM) solution in which the factors were defined as in the CFA models, but in which all cross-loadings were freely estimated but assigned a target value of zero using an oblique target rotation procedure (Browne, 2001). The goodness-of-fit results from these alternative work passion models are reported in Table S1. These results clearly support the adequacy of the ESEM representation of the work passion measure (all CFI and TLI ≥ .90; all RMSEA ≤ .08) and its superiority relative to the CFA model (ΔCFI = .073 to .080; ΔTLI = .073 to .085; ΔRMSEA = .024 to .029). The ESEM solution was thus retained for sequential tests of measurement invariance. The results from these tests, reported in Table S1, supported the configural, weak, strong, partial strict (equality constraints had to be relaxed on the uniquenesses of one HP item which only differed very slightly across groups, as

shown in Table S2), latent variance-covariance, and latent means invariance. Factor scores were extracted from the final model of latent means invariance for the main analyses. Parameter estimates from this final model are reported in Table S2. These results revealed well-defined HP (λ = .613 to .849, ω = .858 for Indigenous workers and ω = .869 for non-Indigenous employees; the ω only differs slightly due to the partial invariance of the uniqueness of one HP item) and OP (λ = .636 to .760, ω = .855) factors over time.

Predictors and Outcomes

A CFA model was also estimated for the multi-item predictor and outcome variables. This model included a total of four factors (job overload, role ambiguity, resilience at work, and psychological well-being) that were freely allowed to correlate. The goodness-of-fit results for these models are reported in Table S3. These results support the adequacy of the a priori model (with all CFI/TLI ≥ .90 and all RMSEA ≤ .05), as well as its complete invariance across groups (ΔCFI ≤ .010; ΔTLI ≤ .010; and ΔRMSEA ≤ .015). The parameter estimates and composite reliability estimates obtained from the most invariant measurement model (latent means invariance) are reported in Table S4. These results show that all factors are well-defined by satisfactory factor loadings (λ = .341 to .799), resulting in satisfactory composite reliability coefficients (ω = .788 to .880). Factor scores were saved from this most invariant measurement model and used as predictor and outcome indicators in the main research. The correlations between all variables are reported in Table S5.

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Table S1

Goodness-of-Fit Statistics for the Estimated Models (Work Passion)

Description	χ^2 (*df*)	CFI	TLI	RMSEA	90% CI	CM	$\Delta\chi^2$ (*df*)	ΔCFI	ΔTLI	ΔRMSEA
Work Passion										
Indigenous employees CFA	320.466 (53)*	.871	.840	.092	[.083; .102]	-	-	-	-	-
Indigenous employees ESEM	145.133 (43)*	.951	.925	.063	[.052; .075]	-	-	-	-	-
Non-Indigenous employees CFA	382.266 (53)*	.863	.829	.101	[.092; .111]	-	-	-	-	-
Non-Indigenous employees ESEM	195.334 (43)*	.936	.902	.077	[.066; .088]	-	-	-	-	-
Work Passion: Multi-Group Invariance										
M1. Configural invariance	340.120 (86)*	.943	.913	.070	[.063; .078]	-	-	-	-	-
M2. Weak invariance	364.450 (106)*	.942	.928	.064	[.057; .071]	M1	21.474 (20)	-.001	+.015	-.006
M3. Strong invariance	389.119 (116)*	.939	.931	.063	[.056; .070]	M2	22.025 (10)*	-.003	+.003	-.001
M4. Strict invariance	468.169 (128)*	.924	.922	.067	[.060; .073]	M3	74.561 (12)*	-.015	-.009	+.004
M4'. Partial strict invariance	444.694 (127)*	.929	.926	.065	[.058; .071]	M3	53.665 (11)*	-.010	-.005	-.002
M5. Variance-covariance invariance	449.934 (130)*	.929	.927	.064	[.058; .071]	M4'	4.623 (3)	.000	+.001	-.001
M6. Latent means invariance	461.945 (132)*	.926	.926	.065	[.058; .071]	M5	13.292 (2)*	-.003	-.001	+.001

Note. * p < .05; CFA: Confirmatory factor analyses; ESEM: Exploratory structural equation modeling; χ^2: Scaled chi-square test of exact fit; *df*: Degrees of freedom; CFI: Comparative fit index; TLI: Tucker-Lewis index; RMSEA: Root mean square error of approximation; 90% CI: 90% confidence interval; CM: Comparison model; and Δ: Change in fit relative to the CM.

Table S2

Standardized Factor Loadings (λ) and Uniquenesses (δ) for the M6 Solution (Latent Means

Invariance Work Passion)

Items	Harmonious passion λ	Obsessive passion λ	δ
Harmonious passion			
Item 1	**.808**	-.147	.364
Item 2	**.647**	.161	.522
Item 3	**.613**	.211	.538
Item 4	**.616**	.063	.604
Item 5	**.652 / .746**	*-.018 / -.021*	.579 / .448
Item 6	**.849**	-.092	.296
Obsessive passion			
Item 1	*-.026*	**.735**	.465
Item 2	*.017*	**.760**	.418
Item 3	.084	**.704**	.479
Item 4	.068	**.659**	.546
Item 5	.216	**.636**	.505
Item 6	-.286	**.669**	.532
ω	.858 / .869	.855	

Note. λ: Factor loading; δ: Item uniqueness; ω: Omega coefficient of composite reliability; target factor loadings are indicated in bold; the non-significant parameter ($p > .05$) is marked in italics.

Table S3

Goodness-of-Fit Statistics for the Estimated Models (Predictors and Outcomes)

Description	χ^2 (*df*)	CFI	TLI	RMSEA	90% CI	CM	$\Delta\chi^2$ (*df*)	ΔCFI	ΔTLI	ΔRMSEA
Predictors and Outcomes										
Indigenous employees CFA	370.765 (203)*	.959	.954	.036	[.030; .042]	-	-	-	-	-
Non-Indigenous employees CFA	419.656 (203)*	.945	.937	.041	[.036; .047]	-	-	-	-	-
Predictors and Outcomes: Multi-Group Invariance										
M1. Configural invariance	791.744 (406)*	.952	.945	.039	[.035; .043]	-	-	-	-	-
M2. Weak invariance	803.803 (424)*	.953	.948	.038	[.034; .042]	M2	13.123 (18)	+.001	+.003	-.001
M3. Strong invariance	849.054 (442)*	.949	.947	.038	[.034; .042]	M3	47.623 (18)*	-.004	-.001	.000
M4. Strict invariance	903.855 (464)*	.945	.945	.039	[.035; .043]	M4	49.960 (22)*	-.004	-.002	+.001
M5. Variance-covariance invariance	941.377 (474)*	.942	.943	.040	[.036; .043]	M5	34.244 (10)*	-.003	-.002	+.001
M6. Latent means invariance	960.507 (478)*	.940	.942	.040	[.036; .044]	M6	22.414 (4)*	-.002	-.001	.000

Note. * $p < .05$; CFA: Confirmatory factor analyses; χ^2: Scaled chi-square test of exact fit; *df*: Degrees of freedom; CFI: Comparative fit index; TLI: Tucker-Lewis index; RMSEA: Root mean square error of approximation; 90% CI: 90% confidence interval; CM: Comparison model; and Δ: Change in fit relative to the CM.

Table S4

Standardized Factor Loadings (λ) and Uniquenesses (δ) for the M6 Solution (Latent Means Invariance Predictors and Outcomes)

Items	Ambiguity λ	Overload λ	Well-being λ	Resilience λ	δ
Role ambiguity					
Item 1	.662				.562
Item 2	.799				.362
Item 3	.777				.396
Item 4	.791				.374
Job overload					
Item 1		.724			.476
Item 2		.685			.531
Item 3		.689			.525
Item 4		.787			.381
Item 5		.341			.883
Psychological well-being					
Item 1			.676		.543
Item 2			.664		.560
Item 3			.603		.637
Item 4			.676		.543
Item 5			.708		.499
Item 6			.569		.676
Item 7			.689		.526
Resilience at work					
Item 1				.775	.400
Item 2				.636	.595
Item 3				.784	.385
Item 4				.781	.390
Item 5				.720	.481
Item 6				.746	.443
ω	.844	.788	.841	.880	

Note. λ: Factor loading; δ: Item uniqueness; ω: Omega coefficient of composite reliability; all parameters are significant ($p < .05$).

Table S5

Correlations Between Variables

	1	2	3	4	5	6	7
1. Harmonious passion†	-						
2. Obsessive passion†	.182**	-					
3. Job overload†	-.127**	.484**	-				
4. Role ambiguity†	-.499**	-.043	-.028	-			
5. Psychological well-being†	.522**	-.095**	-.171**	-.622**	-		
6. Resilience at work†	.461**	-.009	-.072*	-.665**	.653**	-	
7. Ethnicity	.105**	.031	-.026	-.055	.117**	.031	-

Note. $* p < .05$; $** p < .01$; † variables estimated from factor scores with mean of 0 and a standard deviation of 1; ethnicity was coded 0 for Indigenous employees and 1 for non-Indigenous workers.

Table S6

Results from the Latent Profile Analysis Models in Both Groups

Model	LL	#fp	Scaling	AIC	CAIC	BIC	ABIC	Entropy	aLMR	BLRT
Indigenous employees										
1 Profile	-1626.614	4	1.017	3261.228	3282.756	3278.756	3266.057	Na	Na	Na
2 Profiles	-1593.402	7	.925	3200.805	3238.477	3231.477	3209.255	.801	< .001	< .001
3 Profiles	-1567.360	10	.977	3154.720	3208.538	3198.538	3166.792	.711	< .001	< .001
4 Profiles	-1560.306	13	1.001	3146.613	3216.576	3203.576	3162.306	.670	.024	< .001
5 Profiles	-1554.760	16	.940	3141.521	3227.630	3211.630	3160.835	.716	.015	.020
6 Profiles	-1550.182	19	1.206	3138.364	3240.619	3221.619	3161.300	.677	.705	.171
7 Profiles	-1546.154	22	1.055	3136.308	3254.708	3232.708	3162.865	.653	.158	.192
8 Profiles	-1543.035	25	1.062	3136.071	3270.616	3245.616	3166.249	.642	.372	.333
Non-Indigenous employees										
1 Profile	-1595.481	4	1.108	3198.961	3220.582	3216.582	3203.883	Na	Na	Na
2 Profiles	-1558.378	7	.970	3130.756	3168.593	3161.593	3139.369	.857	< .001	< .001
3 Profiles	-1537.891	10	1.013	3095.782	3149.834	3139.834	3108.087	.781	.002	< .001
4 Profiles	-1518.594	13	1.036	3063.188	3133.456	3120.456	3079.184	.750	< .001	< .001
5 Profiles	-1515.988	16	.971	3063.976	3150.460	3134.460	3083.664	.778	.164	.333
6 Profiles	-1513.592	19	1.082	3065.185	3167.884	3148.884	3088.564	.765	.636	.600
7 Profiles	-1510.872	22	.990	3065.745	3184.660	3162.660	3092.815	.723	.157	.600
8 Profiles	-1507.467	25	1.003	3064.934	3200.065	3175.065	3095.696	.704	.343	.250

Note. LL: Model loglikelihood; #fp: Number of free parameters; scaling: Scaling correction factor associated with robust maximum likelihood estimates; AIC: Akaïke information criteria; CAIC: Constant AIC; BIC: Bayesian information criteria; ABIC: Sample size adjusted BIC; aLMR: Adjusted Lo-Mendel-Rubin likelihood ratio test; and BLRT: Bootstrap likelihood ratio test.
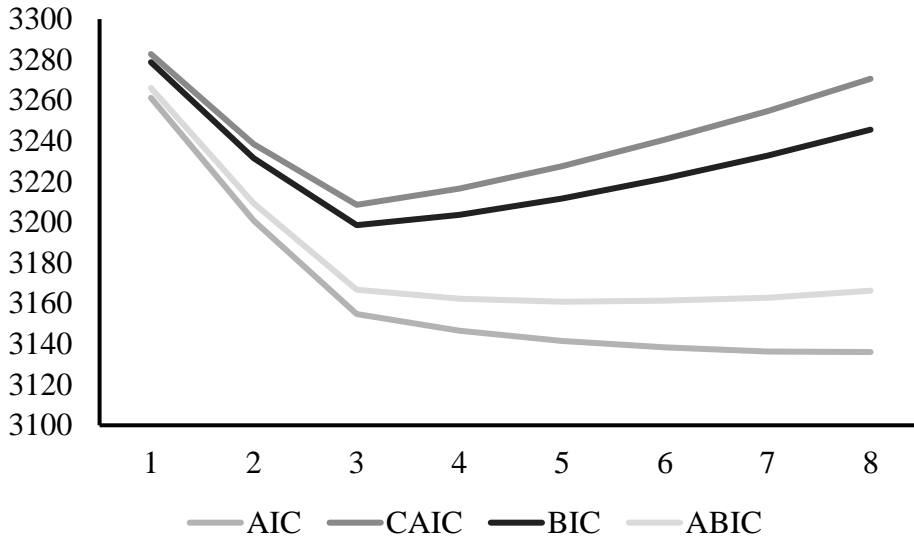
Figure S1

Elbow Plot of the Value of the Information Criteria for Solutions Including Different Numbers of Latent Profiles Within the Group of Indigenous Employees
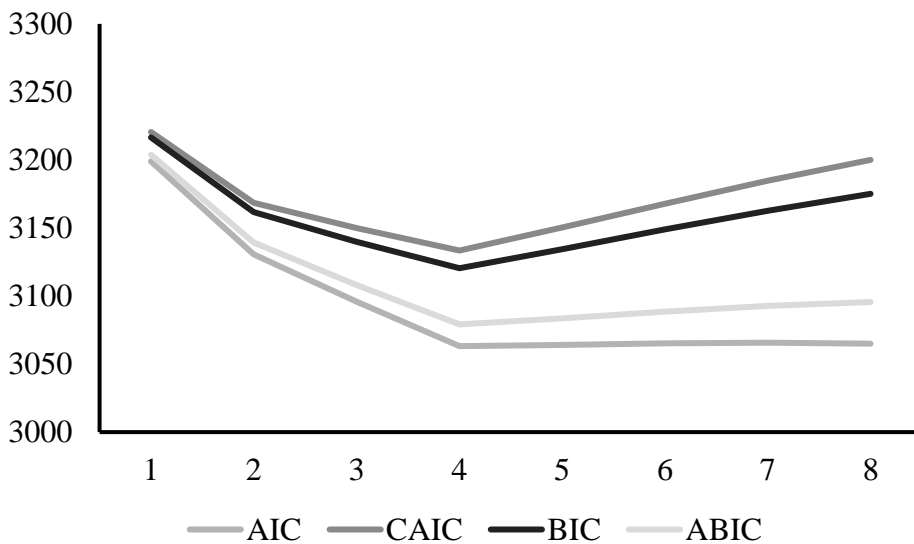

Figure S2

Elbow Plot of the Value of the Information Criteria for Solutions Including Different Numbers of Latent Profiles Within the Group of Non-Indigenous Employees

Table S7

Detailed Parameter Estimates from the Final LPA Solution (Distributional Similarity)

	Profile 1 Mean [CI]	Profile 2 Mean [CI]	Profile 3 Mean [CI]	Profile 4 Mean [CI]
Harmonious passion	.038 [-.053; .130]	.471 [.270; .671]	-1.799 [-2.040; -1.557]	.229 [.134; .324]
Obsessive passion	.513 [.398; .629]	1.811 [1.643; 1.980]	-.851 [-.996; -.706]	-.596 [-.674; -.518]
	Profile 1 Variance [CI]	Profile 2 Variance [CI]	Profile 3 Variance [CI]	Profile 4 Variance [CI]
Harmonious passion	.550 [.490; .610]	.550 [.490; .610]	.550 [.490; .610]	.550 [.490; .610]
Obsessive passion	.244 [.209; .280]	.244 [.209; .280]	.244 [.209; .280]	.244 [.209; .280]

Note. CI = 95% confidence interval; Profile indicators are factor scores with a mean of 0 and a standard deviation of 1; Profile 1: *Obsessive Passion Dominant*; Profile 2: *Mixed Passion-Obsessive Passion Dominant*; Profile 3: *Low Passion*; and Profile 4: *Harmonious Passion Dominant.*

Table S8

Classification Accuracy: Average Probability of Membership into Each Latent Profile (Column) as a

Function of the Most Likely Profile Membership (Row)

	Profile 1	Profile 2	Profile 3	Profile 4
Indigenous employees				
Profile 1	.832	.044	.124	.000
Profile 2	.130	.833	.037	.000
Profile 3	.145	.009	.766	.079
Profile 4	.001	.000	.174	.825
Non-Indigenous employees				
Profile 1	.860	.110	.030	.000
Profile 2	.112	.851	.004	.033
Profile 3	.133	.042	.825	.000
Profile 4	.000	.102	.000	.898

Note. Profile 1: *Obsessive Passion Dominant*; Profile 2: *Mixed Passion-Obsessive Passion Dominant*; Profile 3: *Low Passion*; and Profile 4: *Harmonious Passion Dominant.*