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Career Adaptability as a Developmental Resource for Sustainable Careers: A Latent Profile Analysis in Emerging Adults

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ABSTRACT

Grounded in the sustainable career framework and career construction theory, this study examines how career adaptability supports emerging adults' perceptions of sustainable careers. We investigated whether distinct profiles combining adaptability resources and sustainable career beliefs could be identified and whether these profiles differed in subjective well-being. A sample of Italian university students ($N = 169$) completed measures of career adaptability, sustainable career perceptions and well-being. Latent profile analysis identified three profiles that varied in levels and configurations of adaptability and sustainability. We then examined whether these profiles differed in life satisfaction and flourishing. The vulnerable profile showed low adaptability and sustainability across all dimensions. The emerging but unbalanced profile displayed moderate adaptability and sustainability but lower control and happiness. The adaptive and sustainable profile showed consistently high levels of both adaptability resources and sustainability domains. Young adults in this last profile reported the highest well-being, whereas those in the vulnerable profile reported the lowest levels of life satisfaction and flourishing. Overall, the findings underscore the role of adaptability as a foundation for sustainable career development and well-being in young adulthood. The results integrate adaptability and sustainability perspectives and offer practical implications for career counselling interventions aimed at strengthening adaptive resources.

1 | Introduction

In contemporary societies, emerging adults navigate educational and occupational trajectories marked by unprecedented uncertainty. Rapid technological innovations, global economic fluctuations and evolving social and environmental challenges have contributed to the erosion of predictable career paths, placing greater responsibility on individuals to actively design and manage their professional futures (Alshaikhmubarak 2022; De Vos et al. 2020; Kolade and Owoseni 2022). For university students transitioning into emerging adulthood (Arnett 2000, 2024), these pressures highlight the developmental importance

of cultivating personal resources that support both adaptive functioning and long-term career sustainability (La Rosa and Zammitti 2025).

Within this context, the concept of *career sustainability* has gained increasing prominence. Sustainable careers are conceptualised as dynamic and evolving trajectories shaped through continuous person-environment interactions and characterised by the simultaneous maintenance of happiness, health, productivity and social empowerment (De Vos and Van der Heijden 2015; De Vos et al. 2020; Russo et al. 2025). This perspective extends traditional vocational models by emphasising

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not only successful performance but also individual well-being, long-term continuity and social contribution. Recent work suggests that sustainable career development is particularly critical for emerging adults facing complex ecological and societal demands and that their ability to envision such futures is shaped by both psychological and contextual resources (Talluri et al. 2022; Valbusa et al. 2025).

Alongside this theoretical evolution, the career construction theory has provided a comprehensive developmental framework for understanding how individuals navigate dynamic and uncertain career transitions (Savickas 2005, 2012). Central to this framework is *career adaptability*, defined as a set of psychosocial resources that enable individuals to cope with career-related tasks, transitions and traumas (Savickas and Porfeli 2012). Adaptability comprises four key dimensions (concern, control, curiosity and confidence), which support proactive orientation toward the future, self-regulation, exploration of opportunities and efficacy in managing career-related challenges. Specifically, concern reflects an individual's awareness of and orientation toward their future career. It involves looking ahead, preparing for the future and developing a sense of purpose and direction. Control refers to an individual's perceived responsibility for shaping their career path. It involves having the ability to make decisions and the belief that one can influence their own vocational development. Curiosity captures the tendency to explore possible selves and future opportunities. It reflects openness, investigative behaviours and a willingness to learn about different career options and environments. Finally, confidence is a person's belief in their ability to solve problems, overcome barriers and achieve their aspirations successfully. It involves self-efficacy in managing career-related tasks and coping with challenges. These resources have been consistently linked to exploration, resilience, decision-making and adaptive identity development across adolescence and emerging adulthood (Creed et al. 2009; Hirschi and Valero 2015; Koen et al. 2012).

Accumulating evidence indicates that career adaptability contributes significantly to young people's psychological well-being. Individuals with higher adaptability report greater life satisfaction, flourishing, purpose and optimism and fewer career decision-making difficulties (Ginevra et al. 2018; Magnano et al. 2021; Parola and Marcionetti 2022). These findings align with developmental theories emphasising agency and meaning as core tasks of emerging adulthood (Arnett 2024; Schwartz et al. 2005). They are also consistent with the Life Design paradigm, which highlights narrative meaning-making and proactive agency as mechanisms through which individuals construct coherent and fulfilling life trajectories (Savickas 2012; Savickas et al. 2009).

Recent contributions have begun to integrate adaptability and sustainability within shared conceptual models. Career sustainability has been proposed as a potential adaptation outcome of the career construction model of adaptation, with adaptive resources supporting not only short-term coping but also the capacity to sustain well-being, engagement and productivity across time (Rudolph et al. 2017; Talluri et al. 2022). Empirical findings support these links, showing that adaptability predicts emerging adults' future-oriented beliefs about maintaining health, happiness and productivity throughout their careers

and that these beliefs are associated with higher flourishing and well-being (Russo et al. 2025; Valbusa et al. 2025).

Despite these advances, important gaps remain in the literature. Most prior studies have relied on variable-centred approaches that examine average associations between constructs while overlooking the possibility that emerging adults may differ qualitatively in how adaptability and sustainability resources co-occur. Person-centred studies on career adaptability indicate that individuals tend to cluster into distinct profiles characterised by varying levels and configurations of adaptive strengths and vulnerabilities (Hirschi and Valero 2015; Parola and Marcionetti 2025). However, no study has yet examined whether adaptability and career sustainability jointly form meaningful profiles among university students. Moreover, little is known about how these profiles relate to subjective well-being, despite well-established links between both constructs and indicators such as life satisfaction and flourishing (Magnano et al. 2021). Research focusing on Italian university students remains particularly scarce, even though emerging adulthood is a period marked by heightened uncertainty, identity exploration and future-oriented decision-making (La Rosa and Zammitti 2025; Parola and Marcionetti 2022).

2 | The Current Study

The present study builds on the idea that career development is not a linear progression but an active and continuous process of adaptation to instability, environmental changes and evolving social demands. This non-linearity underscores the growing relevance of sustainability in career pathways, which requires individuals to balance well-being, performance and social contribution across time (Russo et al. 2025). Therefore, understanding how career adaptability supports the development of sustainable careers is essential for clarifying the interplay between personal resources and future-oriented sustainability beliefs, as well as for informing career counselling interventions aimed at strengthening emerging adults' adaptive capacities.

Previous research has highlighted that career adaptability plays a crucial role in constructing sustainable careers, enabling individuals to anticipate, prepare for and cope with changing and uncertain environments (Savickas and Porfeli 2012). Adaptability also supports the management of emerging career concerns and promotes more confident and proactive engagement in career decision-making (Creed et al. 2009; Russo et al. 2025; Talluri et al. 2022; Valbusa et al. 2025). Based on this evidence, we hypothesised that higher career adaptability would orient individuals toward more sustainable career choices.

Adopting a person-centred approach, this study investigates how career adaptability and career sustainability combine within individuals. No previous studies have examined how these constructs jointly shape distinct profiles among emerging adults. To address this gap, we considered the four adaptability resources identified by the Career Construction Theory, namely concern, control, curiosity and confidence, in combination with the four dimensions of sustainable careers proposed by Russo et al. (2025), namely happiness, productivity, health and social empowerment. A person-centred approach was selected because

it allows the identification of profiles that vary quantitatively in terms of the levels of individual dimensions and qualitatively in terms of the specific configuration of adaptive and sustainable resources (Hirschi and Valero 2015; Wang and Hanges 2010).

Finally, we examined whether these profiles were associated with subjective well-being. We expected to identify at least one profile characterised by high adaptability and high sustainability as well as one profile characterised by low adaptability and low sustainability. We further anticipated that individuals with profiles marked by strong adaptability and sustainability would report higher levels of well-being. No specific assumptions were made regarding which adaptability dimensions would combine with the domains of career sustainability.

3 | Methods

3.1 | Participants and Procedure

The sample consisted of 169 university students (mean age = 21.02, SD = 1.72, range = 19–28), 68% of whom were female. Participants completed an online questionnaire accessible through a QR code displayed in university lecture halls at the end of class sessions. Before taking part in the study, students received detailed information regarding the research aims, data anonymity and confidentiality, and their right to withdraw at any time. Informed consent was obtained electronically at the beginning of the survey, which required approximately ten minutes to complete. Data collection occurred during the first trimester of 2025. The study was approved by the Internal Ethic Review Board of Psychology Research (IERB) of the Department of Educational Sciences of the University of Catania (Ierb-Edunict-2025.04.24/04) and was conducted in accordance with the ethical guidelines of the Italian Association of Psychology (AIP).

3.2 | Measures

Career sustainability was assessed using the Future-Sustainable Career Scale (F-SCS; Russo et al. 2025). Participants rated each item on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measures four dimensions of sustainable career development: happiness, productivity, health and social empowerment. Example items include ‘I believe my future career will allow me to be satisfied with my life’ (happiness), ‘During my career, I think I will be able to effectively perform most work tasks’ (productivity), ‘I believe my future career will contribute to improving my overall well-being’ (health) and ‘My future career will allow me to contribute to the care of the planet’ (social empowerment). In the present study, Cronbach’s α values were 0.91 for happiness, 0.82 for productivity, 0.83 for health and 0.90 for social empowerment.

Career adaptability was measured using the Italian version of the Career Adapt-Abilities Scale—Short Form (CAAS-SF; Parola, Zammitti, Santilli, et al. 2025). Participants responded on a 5-point Likert scale ranging from 1 (*not strong*) to 5 (*strongest*). The scale assesses four adaptability resources: concern (three items), control (three items), curiosity (three items) and

confidence (three items). Example items include ‘Thinking about what my future will be like’ (concern), ‘Making decisions by myself’ (control), ‘Looking for opportunities to grow as a person’ (curiosity) and ‘Taking care to do things well’ (confidence). In this study, Cronbach’s α values were 0.74 for concern, 0.71 for control, 0.81 for curiosity and 0.80 for confidence.

Subjective well-being was assessed through measures of life satisfaction and flourishing. Life satisfaction was measured using the Italian version of the Satisfaction with Life Scale (SWLS; Di Fabio and Palazzeschi 2012), which includes five items rated on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item is ‘The conditions of my life are excellent’. In this study, Cronbach’s α for the SWLS was 0.87. Flourishing was measured using the Italian version of the Flourishing Scale (Di Fabio 2016), composed of eight items rated on the same 7-point Likert scale. An example item is ‘I lead a purposeful and meaningful life’. Cronbach’s α in the current sample was 0.89.

3.3 | Data Analysis

3.3.1 | Descriptive Analysis

Means, standard deviations and tests of normality (skewness and kurtosis) were computed for all variables. A correlation analysis was then carried out to examine associations among the study variables. The missing completely at random (MCAR) test (Little 1988) was used to verify the randomness of missing data, an essential assumption for subsequent analyses. Results showed that missing data did not exceed 5% and that Little’s test was non-significant ($p = 0.812$), supporting the MCAR assumption.

3.3.2 | Latent Profile Analysis (LPA)

LPA with the robust maximum likelihood estimator (MLR) was used to identify latent subgroups within the sample. LPA is a mixture-modelling technique designed to detect homogeneous subgroups in heterogeneous populations (Garrett and Zeger 2004; Hagenars and McCutcheon 2002). Through an iterative procedure, individuals with similar response patterns are aggregated into profiles, and each participant is assigned to the profile with the highest posterior probability.

The analysis included the domains of career sustainability and the dimensions of career adaptability, using standardised variables. A stepwise procedure was employed to determine the optimal number of profiles. Starting from a two-profile solution, additional profiles were added sequentially until either convergence issues emerged or model fit indices indicated that additional profiles did not improve model quality (Nylund et al. 2007). Fit indices included the Akaike information criterion (AIC; Akaike 1987), the Bayesian information criterion (BIC; Schwarz 1978) and the sample-size adjusted BIC (SABIC; Sclove 1987), with lower values indicating better fit (Feldman et al. 2009). Model comparisons were further evaluated through the Lo–Mendell–Rubin adjusted likelihood ratio test (LMRT; Lo et al. 2001) and the bootstrapped likelihood ratio test (BLRT; McLachlan and Peel 2000).

Non-significant p values indicate that the model with k profiles fits better than the model with k minus one profiles. Classification indices were also examined. Entropy and average posterior probabilities (AvPP) were used to assess the accuracy of class membership. Higher entropy values reflect greater classification precision (Nagin 2005), with values between 0.60 and 0.80 considered acceptable (Jung and Wickrama 2007; Muthén 2004). AvPP values close to 1 indicate high confidence in profile assignment, with 0.90 commonly used as a cut-off for acceptable accuracy (Muthén and Muthén 2000). Finally, the size of each latent profile was evaluated, as profiles comprising fewer than 5% of the sample are typically considered spurious (Masyn 2013).

3.3.3 | Multinomial Logistic Regression

After identifying the optimal profile solution, the R3STEP command was used to examine whether sex predicted profile membership. This method performs a multinomial logistic regression

TABLE 1 | Descriptive statistics.

	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>K</i>
Happiness	3.8728	0.84784	−0.845	0.415
Productivity	3.9246	0.75238	−0.798	0.76
Health	3.1139	0.87753	−0.06	−0.048
Social empowerment	3.9098	0.91592	−0.739	0.376
Concern	3.7278	0.82748	−0.602	0.208
Control	3.9369	0.77747	−0.833	1.192
Curiosity	3.9349	0.83117	−0.74	0.331
Confidence	4.0769	0.74801	−0.865	0.917
Life satisfaction	4.0024	0.89973	−0.338	0.411
Flourishing	4.7296	1.10726	−0.374	−0.1

Abbreviations: K = kurtosis; M = mean; SD = standard deviation; Sk = Skewness.

TABLE 2 | Correlations for study variables.

	1	2	3	4	5	6	7	8	9	10
1. Happiness	—									
2. Productivity	0.798	—								
3. Health	0.610	0.623	—							
4. Social Empowerment	0.594	0.572	0.396	—						
5. Concern	0.474	0.584	0.374	0.357	—					
6. Control	0.543	0.558	0.426	0.337	0.563	—				
7. Curiosity	0.559	0.572	0.442	0.448	0.540	0.630	—			
8. Confidence	0.497	0.661	0.380	0.482	0.585	0.630	0.617	—		
9. Life satisfaction	0.554	0.603	0.389	0.443	0.513	0.554	0.522	0.495	—	
10. Flourishing	0.594	0.601	0.362	0.446	0.528	0.545	0.576	0.553	0.723	—

Note: All correlations are significant at $p < 0.001$.

while preserving the latent profile structure (Asparouhov and Muthén 2014).

3.3.4 | Multivariate Analysis of Variance (MANOVA)

A MANOVA with LSD post hoc tests was conducted to examine differences between profiles in life satisfaction and flourishing, treated as indicators of subjective well-being. This approach allowed us to investigate associations between profile membership (independent variable) and well-being outcomes (dependent variables). Importantly, these outcome variables were not included in the estimation of the latent profiles.

4 | Results

Table 1 reports the descriptive statistics of the study variables. Skewness and kurtosis values indicated that the distributions were approximately normal. Bivariate correlations between the career adaptability dimensions, the career sustainability domains and the well-being outcomes (life satisfaction and flourishing) showed significant associations among the study variables (see Table 2).

The LPA was conducted using a stepwise procedure on the career adaptability and career sustainability variables. Based on the fit indices, the three-profile solution emerged as the best representation of the data (see Table 3). Although the AIC, BIC and SABIC values were lowest for the four-profile model, the entropy value and the LRT and BLRT tests indicated that the four-profile solution did not improve model fit. In particular, the LMR test for the four-profile solution was non-significant, supporting the three-profile model as a better fit. In addition, the smallest profile in the three-profile solution included 25% of the sample ($n = 43$), whereas the smallest profile in the four-profile solution included only one participant (0.01%). Profiles of this size are generally considered unstable and unlikely to represent a meaningful or generalisable subgroup. Finally, the interpretability of the profiles in the three-profile solution was more consistent with theoretical expectations.

Table 3 summarises the fit indices for the three-profile solution, which demonstrated adequate model fit, good entropy (0.87) and high posterior probabilities (ranging from 0.942 to 0.946). Figure 1 displays the three-profile solution. Profile 1 ($n=43$) was labelled 'Vulnerable'. Individuals in this profile showed low levels across all adaptability dimensions (concern, control, curiosity and confidence) and across all sustainability domains (happiness, productivity, health and social empowerment). Profile 2 ($n=83$) was labelled 'Emerging but Unbalanced'. Individuals in this profile exhibited moderate levels of concern, curiosity, confidence, productivity, health and social empowerment, but lower levels of control and happiness. Profile 3 ($n=43$) was labelled 'Adaptive and Sustainable'. Individuals in this profile reported high levels on all adaptability dimensions and on all sustainability domains.

TABLE 3 | Latent profile analysis fit statistics.

Fit statistics	2-Class	3-Class	4-Class
AIC	3439.194	3318.899	3233.244
BIC	3517.441	3425.315	3367.830
SABIC	3438.284	3317.662	3231.680
Entropy	0.825	0.871	0.815
LRT p	<0.001	<0.001	0.3265
BLRT p	<0.001	<0.001	<0.001

The multinomial logistic regression using Profile 3 as the reference group showed no significant sex differences between profiles.

We then examined whether emerging adults in different profiles differed in subjective well-being. As shown in Table 4, the MANOVA revealed significant differences between profiles in both life satisfaction [$F(2, 166)=23.522, p<0.001, \eta^2=0.346$] and flourishing [$F(2, 166)=36.971, p<0.001, \eta^2=0.359$].

5 | Discussion

This study examined how career adaptability and sustainability interact to create different developmental profiles among Italian emerging adults and if these profiles vary in terms of subjective well-being. building on the sustainable career framework (Russo et al. 2025) and career construction theory (Savickas and Porfeli 2012), this study sought to determine if adaptability resources influence sustainable career trajectories and how they interact to shape students' future-oriented career pathways.

Using a person-centred approach, we identified three meaningful profiles that varied quantitatively and qualitatively across career adaptability and sustainability domains. As expected, these profiles were associated with different levels of well-being. Consistent with our hypotheses, Profile 1 ('Vulnerable'), which comprises individuals with low adaptability and sustainability, mirrors a pattern of vulnerability. These students may have difficulty envisioning a coherent and meaningful future career,

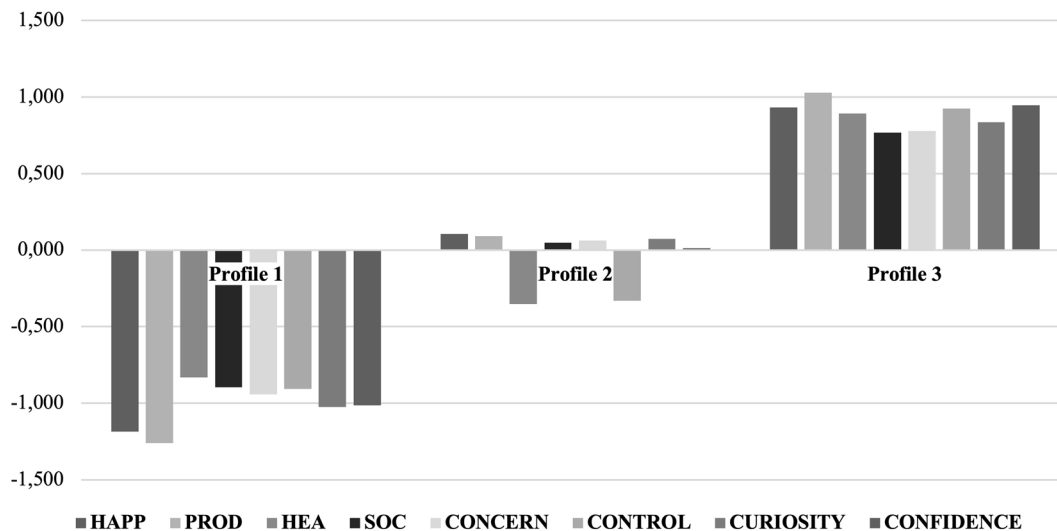


FIGURE 1 | Profiles of latent profile analysis. Happ = happiness; Hea = health; Prod = productivity; Soc = social empowerment.

TABLE 4 | Results of MANOVA comparing clusters.

Measure	Profile 1		Profile 2		Profile 3		$F(3, 617)$	η^2
	M	SD	M	SD	M	SD		
Life satisfaction	3.26	0.95	4.1	0.60	4.74	0.72	43.893***	0.346
Flourishing	3.78	1.02	4.75	0.84	5.64	0.85	46.483***	0.359

Abbreviations: M = mean, SD = standard deviation.

*** $p<0.001$.

lack confidence in their ability to manage career demands and anticipate limited opportunities for well-being, productivity and societal contribution in their future profession. This profile reflects a more vulnerable segment of emerging adulthood who may struggle to envision sustainable futures. Furthermore, these findings support the idea that insufficient adaptability resources hinder individuals' ability to construct sustainable careers and reinforce previous findings that low adaptability predicts poorer career development outcomes (Creed et al. 2009; Talluri et al. 2022). Profile 3 ('Adaptive and Sustainable') was characterised by high levels of all adaptability dimensions and all sustainability domains (happiness, productivity, health and social empowerment). This profile reflects emerging adults who feel psychologically prepared to face career-related challenges and envision a future career that is personally fulfilling, productive, healthy and socially meaningful. This configuration aligns with the sustainable career model, which conceptualises sustainability as emerging from the dynamic interplay between individual agency, person-career fit and contextual conditions (De Vos et al. 2020; Russo et al. 2025). These students appear to have strong psychological resources that enable them to anticipate and manage transitions (concern and control), explore opportunities (curiosity) and rely on their own efficacy (confidence). These resources support a future-oriented, multidimensional sense of career sustainability. Furthermore, in this sense adaptability resources may operate not only as a 'personal' mechanisms of self-regulation but also as psychological capacities that enable individuals to envision career trajectories that benefit both themselves and society at large. Indeed, in this profile emerging adults may represent a group capable of aligning personal aspirations with actions that address societal and ecological needs.

Finally, Profile 2 ('Emerging but Unbalanced') exhibited moderate levels of adaptability and sustainability, though it was characterised by lower control and happiness. This profile is interesting because it suggests that not all dimensions of adaptability contribute equally to perceptions of sustainability. Students who are moderately concerned, curious and confident about their careers may still perceive limited agency (control) over career decisions, which may diminish their sense of future career happiness. These findings support the idea that sustainable careers require a balanced configuration of adaptability resources, not just the presence of them. Overall, the results suggest that adaptability resources may constitute a psychological foundation for sustainable career development. This finding aligns with Russo et al.'s (2025) conceptualisation of sustainable careers. Individuals who can anticipate future challenges, make decisions, explore career alternatives and maintain confidence seem better equipped to envision careers that ensure well-being, productivity, health and societal purpose.

Consistent with our hypotheses, subjective well-being varied significantly across profiles. Those in the high-adaptability/high-sustainability profile reported the greatest life satisfaction and flourishing. This confirms the protective role of adaptability and sustainability for well-being. These results are consistent with previous research showing that adaptability predicts higher well-being in terms of life satisfaction (Ginevra et al. 2018; Parola and Marcionetti 2022) and flourishing (Magnano et al. 2021; Parola and Marcionetti 2022), as well as that sustainable careers foster

both hedonic and eudaimonic well-being (Russo et al. 2025). Conversely, students in the low-adaptability/low-sustainability profile reported significantly lower levels of well-being. This suggests that lacking the necessary resources and expectations to build a sustainable career can negatively impact subjective well-being. This result underscores the importance of early interventions aimed at fostering adaptability, especially among emerging adults who exhibit low control and confidence in their ability to shape future careers. Additionally, Profile 3 suggests that a lack of control and reduced expectations of future happiness may constrain well-being.

Finally, our study found no gender-related differences, which is consistent with other studies that also found no differences in career resources between men and women (Hirschi 2009; Parola and Marcionetti 2025).

Overall, these findings support the idea that adaptability may act as a psychological enabler of global consciousness and socially responsible career decision-making. This perspective is aligned with our frameworks emphasising sustainability as a social and ecological imperative and suggests that promoting adaptability in emerging adults may foster not only personal well-being but also career paths contributing to the sustainable developmental goals.

This study has several limitations. First, it uses a convenience sample of university students from southern Italy. This requires caution when interpreting the results and calls for future studies that allow for generalisation. Second, the study uses a cross-sectional design. While the identified profiles reflect meaningful combinations of these constructs, the temporal dynamics underlying their development remain unclear. Longitudinal studies are needed to understand how adaptability resources and sustainability perceptions evolve and influence each other over time. Third, all measures were self-reported, raising concerns about common method variance and potential social desirability bias. While the study used validated, widely adopted instruments, future research could benefit from integrating multi-method approaches to improve understanding of sustainable career development. Fourth, the study relied on a modest sample size for latent profile analysis. While the three-profile solution was statistically and theoretically supported, larger samples would allow for the identification of more nuanced profiles, including potential subgroups within moderate patterns of adaptability and sustainability. Finally, while career adaptability and career sustainability were central to this study, the role of contextual variables, such as perceived employability, labour market conditions and social support, was not examined. Since sustainable careers are shaped by individual and contextual factors, future studies should adopt comprehensive models that include environmental influences.

Nevertheless, this study had relevant theoretical and practical implications. Theoretically, it contributes to the literature by integrating the Career Construction Theory with the sustainable career framework and showing how adaptability resources relate to the multidimensional nature of sustainability. Identifying distinct profiles shows that sustainable careers emerge from specific configurations of adaptability and perceptions of career sustainability, not just high adaptability.

From a practical standpoint, the findings underscore the importance of career counselling interventions that promote adaptability, particularly in terms of control and confidence, as these factors seem pivotal in shaping sustainable career perceptions. Universities should offer programmes that encourage students to anticipate career challenges, explore opportunities, develop decision-making skills and consider the societal implications of their future work. These resources can help emerging adults construct career paths that are successful, healthy, fulfilling and socially responsible. In line with the life design paradigm (Savickas 2012; Savickas et al. 2009), these findings underscore the importance of cultivating resources that promote sustainable career choices and personal well-being.

Author Contributions

Anna Parola: conceptualisation, writing – original draft, data curation, formal analysis, project administration. **Valentina Lucia La Rosa:** writing – original draft, visualisation. **Jenny Marcionetti:** writing – review and editing, supervision. **Cristiano Felaco:** methodology, writing – review and editing.

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Consent

All participants provided informed consent.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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