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## Decent Work and Apprentice's Well-being

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UNIL | Université de Lausanne

FACULTÉ DES SCIENCES SOCIALES ET POLITIQUES

INSTITUT DE PSYCHOLOGIE

Decent Work and Apprentice's Well-being

THÈSE DE DOCTORAT

présentée à la

Faculté des sciences sociales et politiques  
de l'Université de Lausanne

pour l'obtention du grade de

Docteur es Sciences en Psychologie

par

Camilla Zambelli

Directeur de thèse  
Professeur, Jérôme Rossier

Co-directeur de thèse  
Professeure, Jenny Marcionetti

Jury

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**"Decent work and apprentice's well-being"**

Nicky LE FEUVRE  
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Lausanne, le 8 avril 2024

## Résumé

Ce travail de doctorat s'intéresse à l'analyse des aspects qui favorisent le bien-être au travail et dans la vie des apprentis. Le bien-être pendant l'apprentissage est associé à une évolution de carrière positive, il est donc important d'étudier les facteurs qui le favorisent. Cependant, peu d'études se sont intéressées au bien-être de cette population. Pour combler cette lacune, cette thèse de doctorat étudie des variables contextuelles et individuelles et les relations réciproques entre celles-ci et le bien-être dans un échantillon d'apprentis de première et de deuxième année, en tenant compte de facteurs tels que la perception d'avoir un emploi décent. L'étude a utilisé une méthodologie quantitative et une approche longitudinale avec l'administration de deux questionnaires. En outre, une étude qualitative approfondie avec des entretiens avec 17 praticiens experts de carrière a permis d'explorer le concept de travail décent et les ressources qui, selon ces praticiens, permettent d'accéder à de bonnes conditions de travail.

## Abstract

This doctoral thesis examines the aspects that promote well-being at work and in the lives of apprentices. Well-being during an apprenticeship is associated with positive career development, so it is important to study the factors that promote it. However, few studies have focused on the well-being of this population. To fill this gap, this doctoral thesis investigates contextual and individual variables and the reciprocal relationships between these and well-being in a sample of first- and second-year apprentices, also taking into account factors such as the perception of having a decent work. The study used a quantitative methodology and a longitudinal approach with the administration of two questionnaires. In addition, an in-depth qualitative study involving interviews with 17 vocational guidance and career counselling specialists explored the concept of decent work and the possible resources, which, according to these practitioners, enable good working conditions to be achieved.

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## i Preface

When I embarked on this thesis, my aim was to better understand the influence of personal and contextual factors on wellbeing during the post-compulsory education. At the beginning of my doctoral work, I realized that I needed to focus on the population of young people who most need support in their post-compulsory education: i.e. apprentices just employed in dual training. In this system, adolescents have to integrate rapidly into an adult world and within organizations subject to the constraints of productivity and performance. The fact that this occurs during adolescence, a period of strong changes in the construction of one's identity, both personal and social, makes it even more difficult to well approach and positively experience dual training. Concretely, these difficulties may result in the rupture of the apprenticeship contract and the abandonment of current training.

Because the goal of most of individuals is to achieve a good job and life satisfaction and lower occupational stress, I aimed to focus on the study of individual and contextual resources that help the individual to achieve them. With the help of my two thesis directors, I designed a study and created a questionnaire that included different constructs that, according to the literature, are supposed to be important in predicting apprentice's wellbeing. I also added the construct of decent work that is supposed to impact individual wellbeing. Concerning the concept of decent work, I initially conducted interviews with some specialists in vocational guidance and career counseling to discuss with them the definition of decent work, issue around which the interest and attention of researchers have developed. In parallel, I collaborated with the people in charge for Canton Ticino Vocational Schools to obtain their agreement and support to undertake this research with apprentices enrolled in three-year Vocational and Educational Training (VET) programs from five public vocational school institutes. I then personally contacted the vocational schools and organized the data collections. Hence, the focus of this thesis was ultimately on both the individual characteristics, such as personality or adaptability, that influence the wellbeing of apprentices, and environmental factors,

such as job control or decent work, their interaction, and their influence on three wellbeing indicators: job, life satisfaction and absence of occupational stress.

Since this is a thesis developed from articles, part of the theoretical introduction as well as the discussion of the results has already been presented in the articles. However, having to present a global introduction as well as a conclusion that integrates all the work, the risk of redundancy and repetition is high. I partially overcame the problem by including an introduction (Chapter 1) in which I presented different theoretical models explaining the changes that have impacted the view of careers to the present day and the reasons why it is important to focus on the wellbeing of apprentices in dual training. Secondly, I presented the variables impacting professional and life wellbeing experience for considerations as well as the theoretical foundations upon which to propose hypotheses implicating specific variables that I believed to interact and to influence, on the one hand, decent work, and on the other hand, wellbeing. Finally, I described the context, aim, hypotheses and methodology of this study.

The results were presented in the form of four papers that were published, accepted, or submitted to four different journals. The first paper (Chapter 2) focused on investigation of vocational guidance and career counseling specialists' perceptions of decent work and of the resources that promote access to decent work by using a qualitative approach. For this paper, data was collected through interviews with specialists in vocational guidance and career counseling. The second paper (Chapter 3) consisted in testing a model of factors predicting apprentices' job and life satisfaction, including proactive personality, person-supervisor and person-group fit, occupational self-efficacy and decent work. The third paper (Chapter 4) focused on the relationship between career adaptability, job control, apprentices' perception of decent work and occupational stress. Finally, the fourth paper (Chapter 5) focused on co-development of nonwork orientation, decent work and job satisfaction using a longitudinal approach. In the conclusion (Chapter 6), I have synthesized the results of the studies and attempted not only to discuss them globally but also to evoke specificities that could create opportunities for future research. Thus, the focus is on both the contextual and the individual

level, and in the discussion, the results are presented with reference to the hypotheses formulated and practical intervention directions based on each of the two levels of analysis.

Finally, it is important to note that the term apprentice refers to individuals who are currently pursuing dual training (alternance school-company training). However, not all of them are teenagers because in some cases it can be people that have started their training later or adults having decided to start a new training. In this thesis, no distinction will be made between adolescent and adult apprentices, although the mean age of the sample involved will be reported in each presented study.

# 1 Introduction

## 1.1 The contemporary context and the centrality of individual wellbeing

The context that has developed in recent years has led us to confront with a fluid society, an ever-increasing complexity, and real crises: the current Covid-19 pandemic crisis, the climate crisis and the challenges linked to sustainability (Ruiz-Mallén & Heras, 2020) in all its forms (United Nations, 2015). Bauman (2000) describes today's societies as “liquid”. According to him, societies became both more complex and less stable and in the meantime work organizations became more flexible. Therefore, in a context of liquid modernity, people must on their own define what fundamentally matters in their lives and to make sense of their lives. Living in this uncertainty removes people's reference points, which are essential for setting up their lives (Canzittu, 2020). Because of the current context of society and the new career paradigm that exists today, the “boundaryless career” according to which career focuses on the pathway of the person and on interactions with the external world, in particular with the labor market (Barbieri, 2003), it has become increasingly difficult and challenging to reach an optimal level of wellbeing. In this sense, there is an increasing interest today in defining what the individual wellbeing is: it should be, in fact, not only understood as the holding of a certain quantity of financial resources, but also as a personal wellbeing (understood in terms of physical and psychological well-being). In fact, the United Nations (UN) have set as part of the Sustainable Development Goals, in the 2030 Agenda, the goal of achieving “A good health and wellbeing”. The International Labor Organization (ILO) (2015) also mentioned wellbeing, seen as a goal to be achieved: one of the areas of work of this international organization also concerns the promotion of wellbeing and workplace health.

In this thesis, wellbeing is understood in terms of life satisfaction and job satisfaction. A third indicator used to measure wellbeing is the absence of occupational stress. Firstly, researchers such as Diener (1985) have considered life satisfaction in the 1980s and by Arthaud-Day and colleagues (2005) more recently, as one of the three components of subjective wellbeing, in addition to the two

components of positive affect and negative affect. Pavot and Diener (1993) defined life satisfaction as “a conscious cognitive judgment of one’s life in which the criteria for judgment are up to the person” (p. 164). Later, the same authors (Diener, 2000; Pavot and Diener, 2008) have defined life satisfaction as the cognitive or judgmental process in which individuals assess the quality of their lives based on a series of personally set criteria. Therefore, life satisfaction is a measure of present wellbeing, and it should be viewed as an important resource for the future wellbeing. Several studies have been conducted on a sample of adults concerning the outcomes of life satisfaction. For example, Kim and colleagues (2021) highlighted in their study that good life satisfaction is associated with positive physical health outcomes (such as lower risk of heart attack, good blood pressure and better sleep quality). Furthermore, Wu and colleagues (2021) showed a relationship between a good life satisfaction and a positive mental health and less psychological distress. Wellbeing, however, does not only imply being satisfied with one's own life. In fact, another important aspect to be included in this concept is the professional sphere.

Within this thesis, the second wellbeing indicator is job satisfaction. Job satisfaction was defined by Davis et al. (1985) as “a combination of positive or negative feelings that workers have towards their work. Meanwhile, when a worker employed in a business organization, brings with it the needs, desires, and experiences, which determinates expectations that he has dismissed. Job satisfaction represents the extent to which expectations are and match the real awards.” (p.109). Being satisfied at work serve as a source of meaning, personal fulfillment, enrichment, happiness, and satisfaction-principal elements of subjective wellbeing (Diener, 1984; Kahbenab & Riis, 2005; Myers & Diener, 1995). A considerable part regarding the outcomes of good job satisfaction has been stated and explicated by the field of literature concerning organizational behavior. The outcomes of job satisfaction may in fact be analyzed at different levels: individual, organizational, and social, as done by Zhu (2013) in his review. Results of the research about the outcomes and implications of job satisfaction could also consider these three different levels. At individual level, it has been observed that being satisfied with one's work leads the individual to exhibit better job performance (Kumari et

al., 2021; Loan, 2020). At organizational level, high job satisfaction for employees is associated with lower absenteeism rates and less turnover (Smokrovi et al., 2019; Suryawan et al., 2021). Lastly, job satisfaction would also lead, on a social level, to a good gross domestic product and social stability (Alsafadi & Altahat, 2021; Manzoor et al., 2019). Related to this second indicator there is also a third element that has been used to assess wellbeing in this thesis, i.e., occupational stress. According to an initial definition (McGrath, 1976), stress would result from an imbalance between the demands of a specific condition and an individual's ability to deal with it. Moreover, McGrath (1976) added that the feeling of stress would result from an absence of congruence between the individual's needs and the expectations, possibilities, opportunities, and difficulties of a particular situation. Regarding the outcomes of occupational stress, it returns much of what has been said about job satisfaction. In fact, an intensive perceived occupational stress is associated with lower organizational commitment and higher turnover intention (Mostert et al., 2008). Recently, Wong and colleagues (2021) also studied the difference between perceived occupational stress before and after the Covid pandemic. The results of their study confirmed that the Covid-19 pandemic did indeed negatively affect employee stress at work.

Because of the current context of society and the new career paradigm that exists today, it has become increasingly difficult and challenging to understand the factors that lead the individual to a state of wellbeing, understood as job and life satisfaction and absence of occupational stress. In this case, most of the literature on these three wellbeing indicators focuses on adults, leaving open the question of the validity of the results and relationships identified for other types of populations than those studied.



## 1.2 The importance of wellbeing in the context of initial vocational training

Most studies have focused on analyzing wellbeing indicators, such as job and life satisfaction, among a population of adults. However, there has been not much reported on the wellbeing of apprentices, i.e., young people engaged in initial vocational training. If a context as changeable and precarious as the contemporary one remakes the achievement of wellbeing a critical challenge for an adult, this challenge is even more difficult for a young apprentice. In fact, when considering an adolescent, at the end of compulsory school, who decides to start an apprenticeship/VET program, it is important to consider as a primary goal to be achieved that she or he can enjoy a general state of wellbeing (both physically and, above all, psychologically).

Thinking about the importance of wellbeing in the context of apprenticeship, it can be mentioned one of the best known and most cited outcomes of ill-being: the early termination of the apprenticeship contract, which we know from the literature to be a risk factor of remaining without qualifications, unemployment, poverty, and of having health problems (Stalder & Schmid, 2012). A further aspect relating to the importance of wellbeing during apprenticeship may concern present and future career development as well as future career success. In fact, an apprentice who is satisfied and happy during his or her vocational training is more likely to have a positive career development that will lead him or her to career success (Hofmann et al., 2021; Lüthi et al., 2021).

Today, when considering the reality of apprentices, several elements should be considered that might make wellbeing a critical goal to be achieved. Firstly, the apprentice is exposed to the reality of the labor market: he or she has to respond to the demands of the economy and the market rules, more focused perhaps on productivity and performance and less on its physical and psychological necessities. Secondly, the apprentice is integrated in a social group (family, friends, colleagues, and teachers) that may certainly influence his or her life and professional experience in both positive and negative terms. Thirdly, adolescence, a time when the self is still growing and transforming, makes it more complex to identify one's own resources and strengths, and therefore choosing a profession and living a positive educational and professional experience is not always a

simple task. In addition, it is also important to note that the significance of work for young adults, such as apprentices, could differ according to whether they want to make money, socialize, grow, structure their life, or contribute to society (Masdonati & Fournier, 2015). In fact, the value and meaning given by an apprentice to the work could significantly influence his or her state of wellbeing both at work and in life in general. Finally, another factor influencing the apprentice's wellbeing is the accomplishment of what is called commonly 'the good choice'. The importance of choosing the right profession and thus the right apprenticeship should not be underestimated. Considering this, the importance of choosing an apprenticeship that suits him or her will help establish the basis for successful career development and future career success, which is known to lead to positive outcomes in terms of work and life wellbeing (Guan et al., 2019; Spurk et al., 2019).

Considering this, it seems important to study the wellbeing of apprentices. Indeed, a specific question remain to be answered: which factors could play an important role in making the apprenticeship experience positive (in terms of wellbeing)? This is the main question this thesis will try to answer.

### 1.3 The theoretical fundamentals of wellbeing at work (and in life)

The idea of wellbeing, understood as job and life satisfaction as well as absence of occupational stress, has been discussed with different approaches over time: different authors through different models have tried to study the factors, which over the course of an individual's career, influence his or her feeling of wellbeing. The different theories and models have a unifying point: the fact that work and life satisfaction, as well as the occupational stress, are influenced by factors that can be situated on a continuum, from the most "individual" to the most "contextual". From Karasek (1979) with his job-demand control (JDC) model to Duffy and colleagues (2016) with their Psychology of Working Theory (2016), wellbeing has been approached from different perspectives, focusing on different elements associated with it. In the next paragraphs, some of these theories and models will be presented.

#### *1.3.1 The job demand-support-control model*

The job demand–control (JDC) model put forth by Karasek (1979) coupled with the expanded job demand-control-support model (JDCS) (Johnson & Hall, 1988) represents one of the fundamental and most cited theories in the research area of occupational stress (Dawson et al., 2016). The models have been used to predict standard occupational stress criteria (e.g., burnout: Rafferty et al., 2001) as well as both work-related criteria (e.g., job dissatisfaction: Rodriguez et al., 2001) and criteria beyond the work context. Specifically, the buffer hypothesis for the JDCS model states that an interaction exists between job demand, job control and support such that support buffers the negative effect of high strain (i.e., high demand–low control) on wellbeing (van der Doef & Maes, 1999). The first component of JDCS model is job demand, which refers to, according to Karasek (1979), “psychological stressors involved in accomplishing the workload, stressors related to unexpected tasks, and stressors of job-related personal conflict” (p. 291). The second component is job control, known as decision latitude, which refers to an individual's ability to control his or her work activities. Decision latitude/job control includes two components: skill discretion and decision authority. In earlier research these components were usually combined in one measure, but more recently there

has been a shift towards more differentiated measurement of the control dimension (Alves et al., 2013; Jalilian et al., 2019). High levels of control offer positive direct benefits for psychological and physical health (Elovainio et al., 2015; Ibrahim et al., 2021). Specifically, research has shown that high levels of control are related to less anxiety, burnout, and illness (Rusli et al., 2008; Taris et al., 2005) as well as less physical symptoms, emotional distress, and turnover (Jensen et al., 2013; Scanlan et al., 2019).

Combining the two dimensions of job demands and job control, Karasek (1979) stated that jobs high on demands and low on control (“high strain jobs”) bear the highest risk of illness and reduced wellbeing. By contrast, in jobs low on demand and high on control (“low strain jobs”), the occurrence of adverse reactions is rather unlikely. Regarding the relationship between demands and control on one hand and wellbeing on the other, an important distinction can be drawn between two hypotheses. The strain hypothesis focuses on an increased likelihood of mental or physical illness and reduced wellbeing for individuals working in “high strain jobs”. It is important to note that reduced wellbeing in “high strain jobs” as predicted by the strain hypothesis can be the result of both additive and multiplicative effects of job demands and control (van Vegchel et al., 2005). In contrast, the buffer hypothesis refers exclusively to an interactive effect of demands and control, in which control is predicted to attenuate (buffer) the negative impact of job demands on wellbeing (van der Doef & Maes, 1999). Hence, the two hypotheses are not mutually exclusive. Rather, the buffer hypothesis can be seen as a specific form of the strain hypothesis. The above-mentioned distinction between the “strain” hypothesis and the “buffer” hypothesis can also be applied to the expanded version of the model, the JDCS model. According to this model, job demands, job control, and worksite social integration are crucial aspects in the development of health problems. In the iso-strain hypothesis of the JDCS model, jobs characterized by high demands, low control, and low support (or isolation) are the most noxious work situation, labeled “iso-strain”. The buffer hypothesis of the JDCS model states that social support moderates the negative impact of high strain.

The JDC and the expanded JDCA models are particularly relevant to explain the process by which the characteristics of the work environment (e.g., job demands) interact with employee characteristics (e.g., skills) to affect their psychological and physical wellbeing. The two models in fact demonstrate the importance of context as a determinant of work (and life) wellbeing on which the individual, through control, can actively act.

### *1.3.2 The person-environment fit theory*

The earliest theorizing about Person-environment fit (P-E fit) is often credited to Parsons (1909), who proposed a three-step model on how to make vocational choices based on the match between personal attributes and environmental characteristics. The study of P-E fit is largely built on the theory of work adjustment (TWA) (Dawis & Lofquist 1984), and theories related to stress (Edwards & Cooper, 1990). The TWA posits that a satisfying job is the result of individual and organizational adjustments intended to create correspondence between individual and environmental attributes. From an operational perspective, TWA stated that person and environment are parallel and complementary. Thus, TWA said that the environment, and in parallel also the person, has requirements that have to be met and capabilities that enable it to meet its requirements. In the same way, some of environment's requirements can be met by person in the same way that some of person's requirements can be met by the environment. Fulfillment of their requirements results in satisfaction for the person and for the environment. Specifically, TWA expects the first state to be conducive to behavior that maintains the P-E interaction (maintenance behavior) and the other three states to result eventually in behavior to change the situation (adjustment behavior).

The core of P-E fit theory (Edwards, 1998) is based on the idea that people have an innate need to fit their environments and to seek out environments that match their own characteristics. Fit has also been conceptualized at different levels, such as person-vocation (P-V) fit (the congruence between individual vocational interests and vocational characteristics), person-organization (P-O) fit (fit between individual and organizational values), person-group (P-G) fit (fit between individual attributes and those of the group), and person-job (P-J) fit (fit between individual abilities and needs

and the demands and supplies of the job) (e.g., Edwards & Shipp, 2007; Jansen & Kristof-Brown, 2006; Kristof, 1996; Su et al., 2015). Individuals strive to fit because they generally prefer consistency, wish to exert control over their life and to reduce uncertainty, have a need to belong, and want happiness and life satisfaction (Yu, 2013). Fit allows individuals to better understand the behaviors of others and facilitates interpersonal interactions (Edwards & Cable 2009). In fact, people have a need to compare themselves with other people in the social environment (Deci & Ryan, 2000). A feeling of belonging is most likely when individuals perceive that they share their characteristics with others (e.g., Hogg & Terry, 2000).

P-E fit has important implications. Recent meta-analyses and reviews have shown that congruence in vocational interests facilitates the process of career choices (Hanna & Rounds, 2020) and leads to higher job/career satisfaction, more persistence, and better task performance (Hoff et al., 2020; Nye et al., 2018). Similarly, organizational studies have associated P-E fit with a wide range of wellbeing, attitudinal, and effectiveness outcomes (Arthur et al., 2006; Chapman et al., 2005; Saks et al., 2007). The effects of P-E fit depend on many contingency factors, such as the type of fit dimensions (Person-job fit or Person-organization fit, for example) and outcomes, individual differences (e.g., personality), and contextual features (e.g., culture, Oh et al., 2014).

Recently, Guan and colleagues (2021) highlighted the need to refine the concept of P-E fit. According to these authors, P-E fit is manifested in one's interactions with various roles (e.g., job role, leadership role) and work entities (e.g., teams, organizations). These interactions not only provide self-defining information that influences the person's career identity, but also involve intensive social exchanges of needs and supplies (Edwards, 2008; Kristof, 1996; Muchinsky & Monahan, 1987). According to Guan et al. (2021), this suggests that identity and social exchange theories can be viable theoretical frameworks to refigure the conceptualization of P-E fit.

Although the definition of P-E fit is constantly evolving, also due to the highly unstable current life context, it remains important to emphasize how the idea of fit is important to consider in

the context of career development. As previously mentioned above, the perceived fit seems to have an important impact on career choices and on subsequent individual wellbeing.

### *1.3.3 The social cognitive model of job satisfaction*

Many theoretical models have been developed, especially in the field of positive psychology, to explain job and life satisfaction (e.g., see Fritzsche & Parrish, 2005; Zhang & Howell, 2011). Each of these theoretical models use a series of slightly different variables, such as job characteristics, affective dispositions, social support, P-E fit, or personality to predict wellbeing. A more recent trend in this literature is the development of integrative models that are based on the assumption that job satisfaction, and indirectly life satisfaction, is likely to be determined by the interplay of multiple factors (Lent, 2008).

Lent and Brown (2006; 2008) proposed an integrative model that aims to simultaneously incorporate several predictors of job satisfaction. The model uses the cognitive career theory of Lent et al. (1994) as its theoretical reference model and focuses on examining the nature of relationships between job satisfaction and personal and/or affective traits, participation in goal-directed activities, occupational self-efficacy, perceived working conditions, goals, and supports and significant environmental obstacles, and overall life satisfaction. Firstly, the model assumes that job and life satisfaction influence each other: the strength and causal relationship between the variables would depend on the moderation provided by other factors, such as the importance given by the person to work in relation to other spheres of life (Rain et al., 1991). If work is important to the individual, an important link is established between job satisfaction and life satisfaction. When work is a less important aspect of personal identity for an individual, the reverse link is also possible. Secondly, in their model Lent and Brown (2006; 2008) say that affective or personality traits are linked to job and life satisfaction through different pathways (cognitive, affect, behavioral and social). For example, job satisfaction could be influenced by certain traits, positive or negative, in an indirect manner through changes in the perception of self-efficacy and environmental resources. Therefore, individuals who experience negative affect may be more inclined to view their personal abilities and

social supports less positively than those who have a positive affective trait. The model also assumes that there is an even more direct positive link between traits and life satisfaction: certain levels of positive affect may well improve the degree to which people experience their work experience positively and conversely high levels of negative affect may make it worse. A third aspect of the model is that it assumes that goals and goal-directed behavior are two important aspects that are supposed to influence job and life satisfaction. According to Lent and Brown (2006; 2008) setting, committing to and making progress towards personally important work goals leads to satisfaction both at work and in private life. Conversely, an individual, who have not established goals for themselves, or who makes few efforts to achieve them, or who feels he or she is failing in their pursuit, will most likely be dissatisfied both at work and in life. Fourthly, Lent and Brown's (2006; 2008) model affirms that self-efficacy as well as working conditions or outcomes, whether expected or not, directly influence job satisfaction: therefore, the fact that a person feels efficient in a certain task and that he/she perceives that he/she will now (or in the future) receive favorable working conditions is already a source of satisfaction. In addition, the model also specifies that self-efficacy and perception of working conditions or outcomes can indirectly influence job satisfaction by motivating goal-directed behavior. For example, a high level of self-efficacy and favorable working conditions can promote and support the individual's achievement of his or her goals: the outcomes of achieving one's goals, in turn, influence satisfaction.

Finally, the model assumes that support and obstacles to achieving one's goals influence satisfaction. Certain environmental resources, such as providing examples and role models, encouragement, and feedback on performance, can indirectly influence satisfaction by supporting self-efficacy and expected outcomes, which, in turn, influence the pursuit of goals. Lent and Brown's (2006; 2008) model has the merit of explaining job satisfaction across several factors and thus implies the possibility of implementing interventions on several dimensions. The interesting aspect of Lent and Brown's social cognitive theory is certainly the major place given to personality traits as important determinants of job (and later life) satisfaction and dissatisfaction. In fact, according to these authors,



high trait levels of negative affectivity may exacerbate feelings of dissatisfaction both directly and indirectly, for instance, via their negative influences on self-efficacy beliefs and perceptions of support. Low trait positive affectivity may also affect feelings of work satisfaction in several ways, for example, by muting responsiveness to favorable work conditions.

Regarding this aspect, Young and colleagues (2019) studied emotion regulation and showed that affective traits are more malleable than what Lent and Brown's (2006; 2008) model stated, especially during adolescence. If replicated and extended to a fuller range of work experiences, this statement could have useful implications for practice. For example, a promotion of favorable work experiences may serve to change basic affective dispositions that have been consistently related to job satisfaction.

#### *1.3.4 Savickas's career construction theory*

The theoretical framework related to career construction has been developed, since the 1950s, in order to respond to the increased instability in the labor market. In the 1950s, society was situated in a changing context, moving towards the era of modernity. During this period, one of the most influential authors in the field of career development theories was Super (1953). Super's theory was based on a life-span view, which will then be an inspiration for the subsequent career development theories. In fact, Super (1957) considered career development as a process: for him the development of the individual was to be considered in terms of age stages and the career consisted of a succession of occupied positions over the course of a lifetime, and each transition has its own developmental tasks to face. A few years later, David Tiedeman's (1961) theory of career decision-making emerged. This last is one of the first theories of career development recognized as "constructivist". According to Tiedeman there would be seven developmental sequential stages, tied to age-based norms, and largely unchanging. This theory is crucial to consider as it sets the foundation of Savickas' (2008) career construction theory.

The career construction theory (Savickas, 2013) contains the model of adaptation which suggests that people exert control over their careers by adaptively applying a set of psychosocial

resources, which aid in the management of these expectations (and, hence, the integration of the self at work) over time. Career construction theory recognizes that there are varieties of individual difference characteristics (e.g., personality, interests) that lead people to successfully integrate their self-concepts with their work role (the outcomes of which are termed “adaptation results”; Savickas, 2013; Savickas & Porfeli, 2012). Specifically, the career construction model of adaptation posits that people differ in their willingness (“adaptivity” or “adaptive readiness”) and ability (“adaptability resources” or “career adaptability”) to act in ways that address their changing environmental conditions (“adapting responses”). In this sense, the notion of career adaptability is a very important component not only in Savickas' (2013) model of career construction but also, in general, in the context of all theories of career construction related to the current postmodern context. Career adaptability permits individuals to adapt to the high complexity degree and the continual mutability of the social and economic environment. It is composed of four dimensions: concern, control, curiosity, and confidence (Savickas, 2013). Concern indicates the ability to orient oneself in the future, control is the self-discipline in managing one's career choices, curiosity is the behavior of seeking information about career possibilities and, finally, confidence is related to the feeling of self-efficacy in one's career construction. Career adaptability is an important construct that will be further developed in Subchapter 1.4.7. It is particularly important in today's context of changing and 'borderless' careers. Savickas (2005) views these psychosocial resources as self-regulatory capacities or skills that a person can use to cope with and solve the challenges of everyday life. Together, these resources contribute, according to the author, to forming 'adaptive responses', i.e., the strategies that individuals can use to direct their adaptive behavior. Adaptation is judged by success and satisfaction (Savickas, 2013).

Considering the concrete reality of apprentices, the ability to adapt and be flexible is particularly relevant as an individual resource to be "trained" in order to achieve what we also know from the literature to be outcomes of career adaptability: better performance at work and higher job and career satisfaction (e.g., Rudolph et al., 2017; Zacher, 2015).

### *1.3.5 The psychology of working theory*

The Psychology of Working Theory (PWT), developed by Duffy and colleagues (2016) emerged from the recognition that previous theories of career development, while capturing essential psychological elements of career development and work, did not well explain work-based experiences of people without sufficient access to financial and social capital, marginalized people and people who are forced to make involuntary work-based transitions. The main core assumptions of PWT (Duffy et al., 2016) are: 1) Work is an essential aspect of life and an essential component of mental health; 2) the psychological study of working should be inclusive, embracing everyone who works and who wants to work around the globe; 3) in many cases and situations, work and nonwork experiences are closely intertwined; and 4) working has the potential to fulfill three fundamental human needs: the need for survival and power, the need for social connection, and the need for self-determination. The primary function of PWT is to explain important elements in the process of securing decent work (see Subchapter 1.4.8 for a more detailed definition and explanation) and describe how performing decent work leads to need satisfaction, work fulfillment, and wellbeing. Concerning the terms of decent work, Duffy et al. (2016) incorporated the concept from the ILO (2015), transposing it to the psychology of work and defining it as five fundamental components: (a) physical and interpersonally safe working conditions (e.g., absence of physical, mental, or emotional abuse), (b) hours that allow for free time and adequate rest, (c) organizational values that complement family and social values, (d) adequate compensation, and (e) access to adequate health care. According to the authors, decent work exists when all these components are present. It may happen that a job has only some components and not all five: in this case, however, according to the authors, the concept of decent work cannot be applied.

For individuals who obtain decent work, it is hypothesized that engaging in this type of employment will link to work fulfillment and wellbeing through the satisfaction of the three above mentioned needs (Blustein et al., 2008). Firstly, PWT assumes that decent work helps individuals meet survival needs, allowing for access to resources such as food, shelter, and social capital.

Secondly, it is presumed that work can provide a way to satisfy the basic human requirements for social connection primarily formed in the workplace. Finally, Duffy et al. (2016) proposed that performing decent work is instrumental in satisfying self-determination needs or, said in other words, the experience of being engaged in activities that are intrinsically or extrinsically motivated in a meaningful and self-regulated fashion. Duffy et al. (2016) proposed that meeting survival, social connection and self-determination needs through decent work would predict work fulfillment and general wellbeing.

Specifically, the PWT model is built on the assumption that there are psychological variables that predict securing decent work, variables that are hypothesized to moderate the relations between predictor variables and decent work, and variables that are hypothesized to be outcomes of performing decent work. Firstly, marginalization, defined as the relegation of people to a less powerful or included position within a society and experience of marginalization is considered one of the predictors in terms of critical barriers to securing decent work. Moreover, experiences of marginalization, which can be subtle and overt, constrain career development and the capacity to secure decent work among people with socially marginalized identities. Secondly, because the primary focus of the PWT is to document the work lives of those with limited access to opportunity, the second variable designed in the model are the “economic constraints” defined by limited economic resources (e.g., household income, family wealth), which represent a critical barrier to securing decent work. Economic constraints affect the capacity of a family or a person to invest or access the economic resources that facilitate achievement, career development, and/or occupational attainment, such as cognitively stimulating experiences and materials during childhood (Huston & Bentley, 2010). Decent work may be a way out of poverty for marginalized people and thus, from an economic standpoint, is viewed as a key target for social intervention. PWT proposes that there are certain variables that mediate the relationship between contextual factors (marginalization and economic constraints) and decent work: work volition and career adaptability. Indeed, Duffy et al. (2016) propose that individuals with a high level of work volition and career adaptability are more

likely to engage in decent work. In addition, also according to PWT, relationship between work volition, career adaptability and decent work is potentially affected by five moderating variables: proactive personality, critical consciousness, social support and economic conditions. These moderators' variables are supposed to buffer the effects that experiences of marginalization and economic constraints have on feelings of work volition, career adaptability, and the ability to secure decent work.

In conclusion, PWT represents the current reference model for the study of decent work: over time, many studies have been interested in this construct and how it influences career development process (e.g., Athanasou, 2010; Blustein et al., 2016; Zammitti et al., 2020). PWT also has significant implications for counseling practice, through the implementation of interventions that may mobilize client populations who struggle with making meaning of the underlying systemic factors that are playing a role in their work lives.

## 1.4 Variables at play in becoming a satisfied apprentice

The theories presented previously allow us to highlight the importance of certain factors (some more related to the individual others more to the context) that may possibly impact the apprentices' wellbeing (here understood as life and job satisfaction and low occupational stress). Specifically, Karasek and Theorell's (1990) theory (see Subchapter 1.3.1) discusses how the more contextual variable of job control plays a role in the work and life experience of an apprentice. In this regard, in Subchapter 1.4.1, it was presented in detail some studies that showed how job control influences job and life satisfaction as well as perceived occupational stress. The second theory presented, the Edwards' P-E fit theory (1998) (see Subchapter 1.3.2), discusses a second important variable that is supposed to influence wellbeing: i.e., the P-E fit, in its three components of Person-job fit, Person-Supervisor and Person-Group fit. In Subchapter 1.4.2 and 1.4.3, it will be further discussed and explained how the dimensions of the P-E fit influence job and life satisfaction and occupational stress. The third theory described in Subchapter 1.3.3, the social cognitive model of job satisfaction of Lent and Brown (2006; 2008), presents personality as one of the determinants of wellbeing. Subchapters 1.4.4 and 1.4.5 explain in detail how the variables of occupational self-efficacy and proactive personality influence professional and life wellbeing. Also, in relation to more individual dimensions, Savickas's Career Construction Theory (2013) (Subchapter 1.3.4) explains how the career adaptability variable is important in determining an individual's work and life wellbeing. Subchapter 1.4.6 discusses another more individual variable, nonwork orientation, and how it influences wellbeing and career. Moreover, Subchapter 1.4.7 specifically discusses the link between career adaptability and wellbeing. Finally, the PWT model of Duffy and colleagues (2016) explain how the variable of decent work influence professional and general wellbeing. The subchapter 1.4.8 explain more in details how the perception of decent work may in fact depend on both more contextual and more individual factors and in turn may influence the achievement of a happy state of wellbeing. In conclusion, each further paragraph contains a description of the variables considered in the models

previously described (Chapters 1.3), and the existing literature on the link between each one and wellbeing in terms of job satisfaction, life satisfaction and absence of occupational stress.

#### *1.4.1 Job control*

The work environment can play an important role in promoting employees' wellbeing. As suggested by the JDACS model, job control is an important aspect to characterize a working condition and can be defined as “having control over tasks and conduct during the working day” (Karasek, 1979; p. 289). Generally, job control has been operationalized as the decision authority or work autonomy (Ganster & Fusilier, 1989; Spector, 1988) allowing individual employee to intervene directly to change the aspects of work or task at hand (e.g., Rothbaum et al., 2002). As a result, job control may reduce the perceptions regarding excessive job demands.

Based on the JDACS model, numerous research has been performed on the links between job control and professional and life wellbeing. Studies have in fact amply demonstrated a positive association between job control and job satisfaction, performance, and engagement with the organization (Daniels & Guppy, 1994; Häusser et al., 2010; Wright & Cropanzano, 2000). Other studies (Daniels et al., 2013; Nordenmark et al., 2012; Wemken et al., 2021) have also shown that job control has an impact on job and life satisfaction, and it is a protective factor for wellbeing. Moreover, Blanch (2016) found that social support of colleagues and supervisors mediates the impact of job control on job strain. In addition, Hessels and colleagues (2017), in their study about differences in work-related stress between the self-employed and wagedworkers, have showed that job control fully mediates the negative relationship between self-employment and work-related stress. Regarding career paths, it has been observed that job control also influences career adaptability. For example, Maggiori et al. (2013) found that low levels of job control or decision latitude are associated with low scores on career adaptability. In the context of learning of newcomers in an organization, job control was a facilitator of organizational learning and strain reduction (Kyndt & Baert, 2013).

Given the widely verified influence of job control on work and life experience in adult samples, it was decided to investigate whether this relationship was equally important and relevant

for apprentices. The job control variable, specifically, will be treated within one study (see Chapter 4).

It is important to remember that apprenticeship is a changing process in which the tasks as well as the responsibilities increase from year to year: the skills mastered by the apprentice during the first year are naturally fewer than those mastered during the final year. The in-company training program follows the natural learning process so that during the first year the apprentice will be more supervised than during the last year. It therefore implies that the degree of control the apprentice will have over his or her daily tasks will naturally be less in the early days and will increase during the training.

#### *1.4.2 Person-job fit*

One of the dimensions theorized in the literature (Edwards, 1991; Kristoff-Brown et al., 2005) as being part of the P-E fit construct is what is referred as the P-J fit. P-J fit alludes to the similarity between employees' characteristics and those of a specific occupation or job (Kristof-Brown & Guay, 2011). Edwards (1991) sketched out two fundamental conceptualizations of the P-J fit. The first incorporates the conventional perspective of choice that stresses the standard worker and different qualities to employment requirements (Ployhart et al., 2006). The second type of P-J fit happens when representatives' needs, wishes, or inclinations are met by the occupations that they perform (Kristof-Brown et al., 2005). These are currently coordinated in the general idea of individual-occupation fit (P-J fit) (Cable & DeRue, 2002; Vogel & Feldman, 2009).

P-J fit research has typically been focused on job attributes such as demands and workload, job insecurity, (lack of) promotion opportunities, role ambiguity, (lack of) supervisor support, and autonomy. These aspects are supposed to influence the P-J fit. For example, several studies have provided evidence that needs–supplies and demands–abilities misfits cause strain and stress (Hecht & Allen, 2005; Yang et al., 2008). Furthermore, while both fits relate to job attitudes (satisfaction, commitment, and intentions to quit), needs–supplies fit, i.e., the fit that exists when the resources provided by the organization can meet the needs of employees, has the greatest impact on job attitudes



(Kristof-Brown et al., 2005). In fact, for example, the employee who perceives that the resources provided by the organization are the same as the resources employees expect from the organization (therefore a good needs-supplies fit), he will have a greater tendency to show more positive attitudes to work (Wag & Wang, 2018). Differently, demand–abilities fit, i.e., the compatibility between abilities required by the environment and abilities possessed by a person, seems relatively more important for performance and less important for job attitudes and strain because employees may tend to overestimate their abilities and demands–abilities fit as to preserve their self-esteem (Cable & DeRue, 2002), and their personality characteristics (e.g., optimism, locus of control, self-efficacy) may mitigate the mental consequences of misfit (Park et al., 2012).

Various studies (Krishan et al.; 2017; Memon et al.; 2015) have confirmed how high scores in P-J fit are linked to different outcome variables such as high job satisfaction, physical and psychological health, motivation, performance, and less turnover intention. In addition, Sylva and colleagues (2019) were interested in how P-J fit encourages proactive behavior. In their study, they support the idea that by employing a proactive approach towards their career, individuals can both attain and enhance the alignment between their abilities and the demands of their job. Moreover, Neuenschwander and Hofmann (2021) have observed that expectations of work conditions and a company's support help newcomers to attain a high-perceived person–job fit.

It should be noted that most studies about P-J fit are realized on samples of adult employees whereas the impact of this variable on apprentices has been rarely studied. Thus, P-J fit can be conceived as a psychological resource that can lead to a better job and life satisfaction for a young apprentice. In fact, the consideration of the perceived correspondence between one's chosen job and one's interests and abilities could be an important element for a proper job guidance. In fact, the apprentice who does not feel he/she has a good P-J fit will certainly not have a high level of wellbeing. Thus, the intention, in this thesis, to analyze the impact of perceived P-J fit on an apprentice's wellbeing.

#### *1.4.3 Person-supervisor fit and person-group fit*

Two other dimensions of the P-E fit theorized in the literature (Edwards, 1991; Kristoff-Brown et al., 2005) are the Person-Supervisor fit (P-Supervisor fit) and the Person-Group fit (P-Group fit). Both constructs consider the social aspect of the work environment treating fit with one's superior on the one hand and fit with one's peer group on the other.

Firstly, P-Supervisor fit refers to the match between employees' characteristics and those of their supervisors. Supervisors are important for employees because they can provide rewards and career opportunities. Moreover, supervisors transmit organizational values to the daily work environment (Schein, 2004) and thus shape their employees' environmental experiences through their own values and actions. According to the similarity attraction hypothesis, similarity with the supervisor fosters feelings of inclusion and certainty, high leader-member exchange, and trust in the supervisor (Van Vianen et al., 2011). Because supervisors' values tend to fit with the values of the organization (e.g., Giberson et al., 2005), similarity with the supervisor may promote work behaviors that concur with the values and goals of the organization (Sluss et al., 2012), which will result in positive performance and reward. In the literature, the P-Supervisor fit seems to affect employees' attitudes toward the proximal work context (Van Vianen et al., 2011). Moreover, P-Supervisor fit was found to relate most strongly to supervisor and job satisfaction and less strongly to organizational commitment and performance (Kristof-Brown et al., 2005). Like the other dimensions of the P-E fit, the P-Supervisor fit also appears to have positive impacts on variables such as job satisfaction, motivation, performance, and turnover intention. For example, Kim and Kim (2019) studied how leaders' moral competence is linked to employees' task performance and organizational citizenship behaviors. The results showed that the P-supervisor fit moderates the relationship between leaders' moral competence and employees' psychological empowerment such that the relationships became stronger for individuals higher rather than lower in P-Supervisor fit.

The second important variable for successful professional socialization is the P-Group fit, which refers to the match between the person and their immediate coworkers in terms of demographics, values, goals, personality, and skills (van Vianen, 2018). Studies examining surface-

level attributes such as demographics in teams are inspired by theories of social categorization (e.g., Chatman & Flynn, 2001) and literature on team diversity (e.g., Joshi & Knight, 2015). These studies investigated group-level outcomes (e.g., team processes, coherence, and functioning) rather than individual-level outcomes. Studies examining deep-level attributes such as goals and values are rooted in fit theory and mainly focus on predicting individual-level (Young Seong & Kristof-Brown, 2012) and occasionally group-level outcomes (Kristof-Brown et al., 2014). In these studies, personal attributes (e.g., goals, personality) are compared with the attributes of other group members (Kristof-Brown & Stevens, 2001). P–group fit was found to be moderately related to coworker satisfaction, job attitudes, and organizational citizenship behaviors and somewhat weakly related to task performance (Kristof-Brown et al., 2005).

In the context of entering the labor market, as for an apprentice, matching personality, interests, and values with a social group in the workplace could help the so-called professional socialization (Stalder, 2017). In fact, it is important for an apprentice to develop positive relationships with colleagues and being accepted by them and by supervisors/workplace trainers. In the long term, these relationships at work are positively related to socialization outcomes such as commitment, satisfaction, and turnover intentions (Bauer et al., 2007; Nägele & Neuenschwander, 2014; Negrini et al., 2016). In this process, workplace trainers and colleagues help an apprentice to transfer knowledge and skills between different work situations and learning venues (Hinrichs, 2014). Feeling more in contact with the supervisor (in this case of apprentices) and colleagues may also help to prevent the well-known interruptions in one's career-path. Concerning this, Allidi (2011) in his survey on apprentice' dropout in the Canton of Ticino (Switzerland) highlights the low quality of the relationship between the apprentice and the trainer as one of the reasons for the decision of contract termination.

#### *1.4.4 Occupational self-efficacy*

An important component proposed by Lent & Brown (2006; 2008) within their Social Cognitive Model of Job satisfaction is the self-efficacy defined as the belief, judgment, and self-

perception that one can accomplish a task (Hsu et al., 2019; Marsh et al., 2019). Self-efficacy can be divided into general self-efficacy and domain-specific self-efficacy (Azizli et al., 2015; Löve et al., 2012). Bandura (1993) maintains that activities differ among domains and that different activities require different abilities and skills; therefore, the self-efficacy of an individual may differ depending on the task. Compared with general self-efficacy, domain-specific self-efficacy can better predict people's cognitive abilities and behaviors in specific domains (Grether et al., 2018; Paunonen & Hong, 2010). In particular, the occupational self-efficacy domain has been attracting increasing attention (Schyns, 2004; Van Hootegem et al., 2022). Occupational self-efficacy refers to the belief that an individual is competent to fulfill work-related tasks or activities (Felfe & Schyns, 2006). Occupational self-efficacy is not a specific personality trait or work capacity; rather, it is the confidence or belief in occupational capability (Schyns, 2004).

Occupational self-efficacy has always been a largely studied variable because of its impact on organizational behaviors such as performance and engagement. For example, Cetin and Aşkun (2019) have demonstrated that occupational self-efficacy, with a high level of intrinsic motivation; have a significant influential role over work performance. A high level of occupational self-efficacy means a major job satisfaction: regarding this, Schyns and von Collani (2002) have demonstrated that occupational self-efficacy has some incremental validity in predicting job satisfaction in a sample of adult employees. However, this specific type of self-efficacy has been little studied in a sample of young adults such as apprentices. Pinquart et al. (2003) in their study on 12-15 age students have discovered that an increase of general self-efficacy together with academic capabilities would prepare adolescents for a successful school-to-work transition. This result is interesting when considering the situation of apprentices between school and the labor market. In studies on adolescents, self-efficacy, intended in a general sense, is also seen as a resource for increased wellbeing. For example, Burger and Samuel (2017) showed that self-efficacy moderates the effects of stress and increases life satisfaction, hence considering it as an important psychological determinant of wellbeing. Vecchio and colleagues (2007) proved, with a longitudinal analysis on a sample of young adolescents, the

beneficial effect of self-efficacy on life satisfaction. Multi-faceted self-efficacy, together with other variables such as academic achievement and peer preference in middle school predicted life satisfaction five years later. Based on this, it could be assumed that occupational self-efficacy, thus seen as a more specific form of self-efficacy, also impacts on the wellbeing of adolescents in training such as apprentices.

#### *1.4.5 Proactivity*

In their Social Cognitive Model of Job satisfaction, Lent and Brown (2006; 2008) discussed positive affectivity as a predictor of job and life satisfaction. Considering the nature of the sample chosen for the studies in this thesis, apprentices, predominantly adolescents actively engaged in the labour market, we decided to study a particular type of positive affectivity, linked both to the life context in general and to the professional and/or career context: proactivity. In fact, the changes in the labor market and the new career concepts imply that individuals need to be highly flexible and able to manage multiple job roles. In this sense, individuals have to show a high level of proactivity: they must be agents of change, acting in an anticipatory way, showing self-initiative and oriented to improve their own working conditions. Bateman and Crant (1993) defined the individual with a prototypical proactive personality as one who is relatively unconstrained by situational forces and who effects environmental change. They viewed proactive personality as a stable disposition toward proactive behavior. According to Bateman and Crant's formulation, people who are highly proactive identify opportunities and act on them, show initiative, and persevere until they bring about meaningful change. They transform their organizations' missions, find, and solve problems, and take it on themselves to have an impact on the world around them. Less proactive people are passive and reactive; they tend to adapt to circumstances rather than change them.

Several researchers have been interested in the link between personality and proactive behavior with objective and subjective career outcomes (Fawenhinmi et al., 2018; Liao, 2021; Wang et al., 2020). In fact, proactive individuals approach their jobs and career differently than less proactive people. Proactive individuals select and create situations that enhance the likelihood of high

levels of job performance (Crant, 1995). They are more likely to engage in career management activities such as seeking out job and career support, conducting career planning and persisting in the face of career obstacles (Ashford & Black, 1996; Seibert et al., 2001). Proactive individuals may even be more likely to identify and pursue opportunities for self-improvement, such as acquiring further education or skills needed for future promotions (McComick et al., 2019). We can therefore assume that, as like early-career employees, the link between proactive personality and career adaptability also should be investigated for apprentices. Fostering the development of a proactive behavior could support apprentices at the beginning of their training as well as apprentices who have finished their training and are getting ready to enter in the labor market. Strauss and Peker (2018) studied the effectiveness of different interventions in organization to increase employee proactivity, and they founded that individual with high levels of role overload increased their individual task proactivity because of the problem-focused intervention, and individuals high in future orientation increased their organization member proactivity as a result of the vision-focused intervention. Meyers (2020), instead, studied the integration of proactive behavior as a tool for talent management in organizations, showing how proactive behavior predicts greater access to talent management programs.

#### *1.4.6 Nonwork orientation*

In discussing the individual and the context, and their mutual interaction in determining wellbeing, a word should be said about the individual aspect of managing multiple life roles. In fact, it is important to consider the complexity of managing multiple roles, for an individual, and even more for an apprentice. In fact, today, work-life balance is increasingly important and has evident and proven beneficial effects on wellbeing and productivity (O'Driscoll, 1996; Park & Headrick, 2017). The increase in flexible work arrangements, the raising number of women in the workforce and generational shifts in work values have led to increased interrelatedness between the work and nonwork domains (Greenhaus & Kossek, 2014). As a result, most people's career development is strongly influenced by nonwork roles as many work decisions, such as whether to enter or exit a job, whether to pursue self-employment, or whether to expatriate, are affected by factors outside the work

domain (Powell & Greenhaus, 2010). In an attempt to deepen the understanding of how career development is linked with nonwork roles, Hall et al. (2013) proposed that research should consider individual differences in people's orientations toward various life roles, including-but not limited to-family roles. Hall et al. (2013) introduced the concept of NWOs as a reaction to the nonspecific treatment of diverse nonwork related domains (e.g., family, self, community, or leisure) and they defined this concept as the degree of concern that one has for other roles aside one's career. Based on a literature review and qualitative case studies, three different types of NWOs were proposed. Firstly, role conflict theory has long been the dominant paradigm used in studies to assess work–family relationships (Eby et al., 2005; Hall, 1972). The literature suggests that time for family and consideration for family needs are increasingly a major driving force in many individual's career decisions (Bailyn, 1993; Harrington & Hall, 2007). Drawing from above, a family orientation was defined as “the degree to which one attaches importance to family needs relative to one's career role” (Hall et al., 2013, p. 541). Secondly, Robinson and Godbey (1999) suggested that individuals increasingly are seeking time for life priorities relative to work. Yet, Kossek and Lautsch (2008) found that many employees reported job creep into personal time, some referring to themselves as “job warriors,” where they only had work in their life, and underdevelopment of other parts of self. They wanted time for themselves for other life interests. Based on the preceding discussion, personal life was defined as “a focus on the time for oneself to pursue personal interests (e.g., hobbies, learning, the arts, and exercise), whereas at the same time engaging in a career” (Hall et al., 2013, p. 541). Finally, Tilly and Tilly (1995) noted that besides the paid labor market, individuals engage in many other productive but unpaid life roles that add value to society and self. These may include volunteer work for children's schools, churches, and nonprofit board memberships, and informal labor such as helping a friend or a neighbor. Given the growing interest in community service, this orientation is defined as a “high concern for being able to engage in service to the community where one lives at the same time one is pursuing a career” (Hall et al., 2013, p. 541).

Research investigating effects of involvement in multiple roles generally supported the expansionist hypotheses, that engagement in multiple roles is generally positively related to increased wellbeing and resilience (Barnett, 2008). Although NWOs are conceptually related to involvement in nonwork roles, they more specifically tap into concerns for nonwork roles relative to an individual's career. Looking at the reality of apprenticeships in which the individual must play three roles that of schoolboy, worker and teenager, the argument made about managing multiple life roles and the impact on wellbeing may indeed make sense.

Previous literature has focused more on the links between NWOs and wellbeing, in the sense of job and life satisfaction. Concerning the relationship between NWOs and job satisfaction, few studies have investigated how commitment to multiple roles is related to this type of satisfaction. Hall, the father of the theory on nonwork orientation, with some colleagues (2013) also highlighted how the type of NWOs is a predictor of some job-related determinants such as salary and career satisfaction without, however, examining in detail the link with job satisfaction. Concerning the relation with life satisfaction, the enrichment perspective suggests that NWOs are related to increased wellbeing and higher life satisfaction. The results of Hirschi et al. (2016)'s study support the enrichment perspective which suggest that being actively engaged in several life roles has a positive effect on life satisfaction. Although research on the effects on wellbeing of a particular NWO is limited, it is even more so if we look for research conducted on a sample of apprentices.

#### *1.4.7 Career adaptability*

In the face of a constantly changing labor market, where there is an increasing demand for vocational flexibility, research on career development has focused on a greater understanding of what this type of flexibility implies for individuals, and by which factors it is influenced. On the one hand, a high degree of self-directedness and autonomy is required to maintain vocational continuity within a constantly transforming work environment (Vondracek et al., 2010). On the other hand, there is a growing need for individual willingness and ability to change and learn facing novel vocational development tasks. As vocational apprentices in the Swiss dual system are neither solely students nor



solely professionals, they cannot be clearly assigned to the two typical research foci concerning career adaptability. Nevertheless, undergoing an apprenticeship is a crucial time for the vocational development of young adults and career adaptability can be seen as a significant factor within this process.

According to the majority of approaches, career adaptability is conceived as the individual ability of working adults to adjust to transformations of one's working environment (Fugate et al., 2004; Hall, 2004; Rottinghaus et al., 2005). Following this approach, Savickas (2013) conceptualized career adaptability as the ability that permits individuals to adapt to the high complexity degree and the continual mutability of the social and economic environment. It is composed of four dimensions: concern, control, curiosity, and confidence (Savickas, 2013). The concept of career adaptability therefore mobilizes planned attitudes, stimulates exploration of the self and the environment as well as requiring informed decision-making (Wehmeyer et al., 2019).

Overall, career adaptability has also been shown to have positive associations with life satisfaction. This link has been confirmed by several studies (Parola & Marcionetti, 2022; Santilli et al., 2014; Santilli et al., 2020). For example, Parola and Marcionetti (2022) effectively found a connection between career adaptability and life satisfaction in a sample of five hundred and thirteen Italian students (from middle school to university). Moreover, Santilli and colleagues' (2020) study, realized on a sample of three hundred and sixteen Italian and Belgian middle school students, also suggests that career adaptability is directly and indirectly (through the mediation of resilience) related to students' life satisfaction. Concerning the professional wellbeing, understood as job satisfaction, some studies attest to the effective influence of the construct of career adaptability on job satisfaction. For example, Dong and colleagues (2020) in their study on a sample of adult workers found that career adaptability has a direct effect on job satisfaction and an indirect effect through mediating task adaptivity and perceived over qualification. Looking at wellbeing, job and life satisfaction and perceived occupational stress, Urbanaviciute and colleagues (2019) have shown that all these outcomes are influenced by career adaptability. In fact, authors have investigated the role of career

adaptability in Swiss adult's employee wellbeing within a period of two years. The performed analyses have shown a positive cross-lagged effect from career adaptability to job and life satisfaction. Conversely, a negative effect was observed regarding perceived stress in life.

Finally, good career adaptability skills appear to be associated with career success (Hirschi, 2010a), a successful mastering of vocational transitions (Germeijs & Verschueren, 2007) less probability to be faced with prolonged unemployment (Fouad, 2007) and less career indecision. Consequently, career adaptability is an important construct regarding adolescent career development as well as vocational development in adults and has thus to be considered highly relevant for vocational education and training (VET). In conclusion, since there has been limited research in the literature about the apprentice's wellbeing, the study conducted in this thesis (and described in Chapter 5) would make it possible to expand current knowledge on this subject and provide further insights for future research in these directions.

#### *1.4.8 Decent work*

The changes in the labor market that were noted in the previous sections are reflected in the rise of temporary work, often known as precarious work (Standing, 2010), which is by nature insecure, often part-time, and time limited. Given this context, decent work is increasingly difficult to obtain in many countries (International Labor Organization [ILO], 2012; OECD, 2015): current economic conditions diminish access to decent work for many people (ILO, 2015), while the salience of decent work as a fundamental human right for human dignity and wellbeing has been largely confirmed.

In defining this concept, the ILO (2008, 2012), states that decent work is characterized by four interrelated attributes. First, decent work should include a concerted effort by governments and policy officials to create jobs, which will ensure that reasonable opportunities exist for people who are striving to work. Second, decent work should guarantee rights for workers including, but not limited to, representation, freedom of association, access to collective bargaining, and other legal standards that provide human rights for workers. Third, decent work should warrant that social dialogue is

sanctioned among workers, employers, and government leaders to facilitate a communitarian versus controlling world of work. Fourth, decent work seeks to “ensure that women and men enjoy working conditions that are safe, allow adequate free time and rest, take into account family and social values, provide for adequate compensation in case of lost or reduced income, and permit access to adequate healthcare”<sup>1</sup>.

Duffy et al. (2016) in their PWT (see subchapter 1.3.5) have adapted a construct that has been primarily used within macro level analysis to a psychologically based theory. Compared to the definition of decent work provided by the ILO, and explained above, PWT differs by focusing on psychological aspects while the first one adopts a more economic-social perspective of what is decent work. In fact, the ILO's four attributes of decent work refer to concepts such as governments and policy's efforts as well as workers' rights. Differently, Duffy and colleagues (2016) focus on aspects more related to the psychology and individual perspective such as feeling safe at workplace, having a complementarity of values with one's profession and being able to feel to have time for family and rest.

Recently, the notion of decent work has been associated with the concept of dignity (Blustein et al., 2019) and of social recognition (Su et al., 2022). Regarding the first one, Blustein and colleagues (2019), in their guide to PWT-based counselling interventions, combine the idea of decent work with the idea of dignified work, understood as providing dignity for the individual: for them, talking about decent work would imply equally talking about dignified work. Moreover, in relation to the concept of social recognition, Su and colleagues (2022) more recently validated the decent work scale by incorporating the social recognition component. The qualitative study (described in Chapter 2) also highlighted the importance of social recognition as an additional component of the concept of decent work.

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<sup>1</sup> <http://www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--en/index.htm>

Recently, some authors have become interested in exploring the concept of decent work and examining its antecedents and outcomes. For example, in their study on 604 Swiss workers, Masdonati and colleagues (2019) confirmed that decent work leads to outcomes such as job satisfaction and life satisfaction. Moreover, a more recent study by Zammiti and colleagues (2023), conducted on a sample of university students, also found that the perception of access to decent work mediate between perceived instability of the profession and life satisfaction. In addition, the authors also found that the perceived self-efficacy together with the idea of finding a decent work have a direct effect on life satisfaction. In conclusion, it was decided to investigate if and to what degree the perception of decent work is indeed an important element in determining the wellbeing of an apprentice.

## 1.5 Vocational training in Switzerland and gender differences

### 1.5.1 The status of VET research in Switzerland

In a recent glossary drawn up by the European Centre for the Development of Vocational Training (CEDEFOP), the term “vocational training” refers to “(...) education and training aimed at the acquisition of knowledge, know-how, skills and/or competences required in specific occupations or more widely in the labor market” (CEDEFOP, 2014). In Switzerland, the term “initial vocational education and training” refers to a part of the national education system that encompasses all training that leads directly to a professional activity, excluding training provided at university level (universities, federal institutes of technology, universities of applied sciences or universities of teacher education). Initial vocational training enables people to obtain a diploma in two, three or four years, entitling them to practice the profession they have learned and giving them access to higher vocational training. The much-praised dual apprenticeship system has its place in initial vocational training. This type of training was developed in Switzerland from the end of the 19th century onwards, and today represents an alternative to full-time vocational school training and general education (at gymnasium, in particular). In its traditional and most common structure, training takes place partly in enterprise (three or four days a week) and partly in a vocational school (one or two days a week). This type of structure is called *dual* and/or apprenticeship.

Vocational training is the most popular type of education chosen by young Swiss people after compulsory schooling: in 2014, out of 105,261 people who started post-compulsory education, 68,531 were enrolled in a dual apprenticeship, 7,544 in a full-time vocational school and 29,186 were attending general education schools (gymnasium or school of general culture) (cf. SEFRI, 2023). The choice of vocational training is quite different between German-speaking Switzerland and French- and Italian-speaking Switzerland. Indeed, while in the first one, vocational training is recognized as a viable alternative to a high school or school of general culture, this is not the case in the other two regions. Specifically, in the Canton of Ticino, in 2023, the choices after compulsory schooling were distributed as follows: 45% of students chose school of general culture, 43% vocational training (21%

full-time vocational training and 22% dual vocational training), the remaining 12% alternative solutions (USTAT, 2023).

The focus of research on vocational training, in Switzerland, has been primarily on the phenomenon of early termination of apprenticeship contracts and how to prevent it. The Federal Statistic Office published the latest data on the dissolution of apprenticeship contracts and reintegration into VET, tracing the paths of some 53,400 people who entered training in the summer of 2018. The observation period extends to the end of 2022. More than 24% of apprentices were affected by early termination of their contracts. The recovery rate almost reached 79%.

Thus, studying well-being appears to be important from the perspective of promoting a successful career. For example, Stalder and Lüthi (2020) examined, in Swiss-German and French part, the effects of educational resources (degree) and personal resources (core self-evaluations, CSE) on graduates' job resources (learning opportunities, job control, social relationships) and job satisfaction (career satisfaction, salary). In fact, studying personal and contextual resources allows better examining what factors influence apprentice's well-being. Still, Volodina et al. (2019), in Swiss-German part, were interested in the role that personality traits play in apprentices' satisfaction with vocational education and training (VET) and life satisfaction. Their results indicate that personality traits are particularly relevant for general outcomes.

As also, found by Allidi (2010) in the Canton of Ticino, another important element, which influences apprentices' career choices and acts, as a motivation for early termination of the apprenticeship contract, is the quality of social relations in the workplace. Good socialization in the workplace (occupational socialization) is important for the apprentice: it is positive from a training perspective in that it promotes good learning and performance (Barabasch & Keller, 2020); it is positive from a well-being perspective in that it is closely linked to good job satisfaction and lower turnover (Stalder & Lüthi, 2022). Nägele and Neuenschwander (2014) also highlighted the importance of socialization for an apprentice. In their study on a sample of apprentices, they found that a positive social integration helps the apprentices not only to overcome the uncertainties linked

to this transition, but also to gain access to the resources needed for successful socialization and learning in the organization.

So much has been done and so much remains to be done regarding the study of the working and living conditions of VET apprentices. This thesis, as made explicit later in Chapter 1.6.2, aims to deepen knowledge about the well-being of apprentices by including new constructs such as that of decent work.

### *1.5.2 The role of gender in VET education in Switzerland*

In general, men mostly choose vocational training in Switzerland. According to the Federal Statistic Office (2023), there is indeed a disparity in choices after the middle school in Switzerland. In 2023, in line with previous years, women tend to be predominantly oriented towards higher education (49.7%) as opposed to dual apprenticeships (19.3%). On the other hand, regarding male choice, no major differences can be seen: 36.8% choose apprenticeship and 38.9% choose upper-middle school. Men mostly choose overall, vocational training.

In addition to differences in pathways, there are also differences within the professions chosen in vocational training: this is the phenomenon of so-called horizontal segregation. Horizontal segregation refers to the concentration of women and men in professions or sectors of economic activity (Bettio & Verashchagina, 2009). According to the Federal Statistic Office (2023), we find an over-representation of women in health and social occupations (nurse, teacher, etc.) while men are over-represented in rather technical and scientific occupations (bricklayer, computer scientist, etc.).

But why these differences? According to a study by Le Roy-Zen Ruffinen & Di Mare Appéré (2007), at the end of compulsory schooling, when young people have to make an educational choice, this choice is strongly influenced by the representations that boys and girls may have of male and female roles. Kaiser and Rastoldo (2013) found that women and men felt that male and female roles were different and this seemed to influence their choices. They added that the reconciliation of family and professional life was already a major problem for women, unlike men, for whom profession took precedence in their future.

If males and females choose their profession differently, a study conducted by Lamamra (2011) in Switzerland reveals that men and women are identically affected by the phenomenon of dropping out of education. However, the way dropout is expressed, the situations that led people to end their education and the occupational realities from which they originate are characterized by gender-based occupational segregation and division of labor. Lamamra (2011) also studies how gender norms are transmitted in vocational training. Firstly, the article points out how women and men learn the gender division of work: men are given the more *physically heavy* tasks and women the more 'meticulous and precise' ones. The study also explains that a set of norms of femininity and masculinity are transmitted in parallel with professional socialization.

In conclusion, given the proven diversity of experience between men and women within dual vocational training, it was decided to include this variable within the various studies. Indeed, the above-mentioned findings on gender differences demonstrate the need to take this variable into account when studying the well-being of apprentices.



## 1.6 The present study

The present study was conducted in Canton Ticino, a canton located south of the Alps where the official language is Italian. There are three main linguistic and cultural regions in Switzerland, a German, a French, and an Italian-speaking area, each representing 63%, 23%, and 8% of the population, respectively (FSO, 2023). There are three official administrative languages: German, spoken by most of the Swiss population, French, which is the second most spoken language, and Italian, in third place. In addition, there is a fourth language, at national level, which in contrast to the previous three; however, has no administrative status: Romansh, spoken by less than 1% of the population. Switzerland has organized itself as a federal state and, concerning the education system, there is no centralized ministry of education.

Today, the Swiss and Canton Ticino educational systems are organized as illustrated in Figure 1. A particularity of the Ticino education system concerns the duration of middle school: Ticino students spend four years (and not three as in the other Cantons) in middle school. Additionally, in Ticino the school tracking system is limited to the last two years of middle school and two subjects: German and mathematics. In the third and fourth year of middle school, students enroll in an “attitudinal” or “basic” course in the last-mentioned two subjects. Minimally marks are required to access attitudinal courses. Compared to basic courses, the attitudinal courses investigate in greater depth several aspects to subject matter. Having attended both attitudinal courses is a prerequisite to accessing academic upper secondary education (high school). Regarding post-compulsory education, competencies are divided between the cantons and the confederation, the latter of which has a particularly strong influence on issues that are associated with vocational education and training (VET).

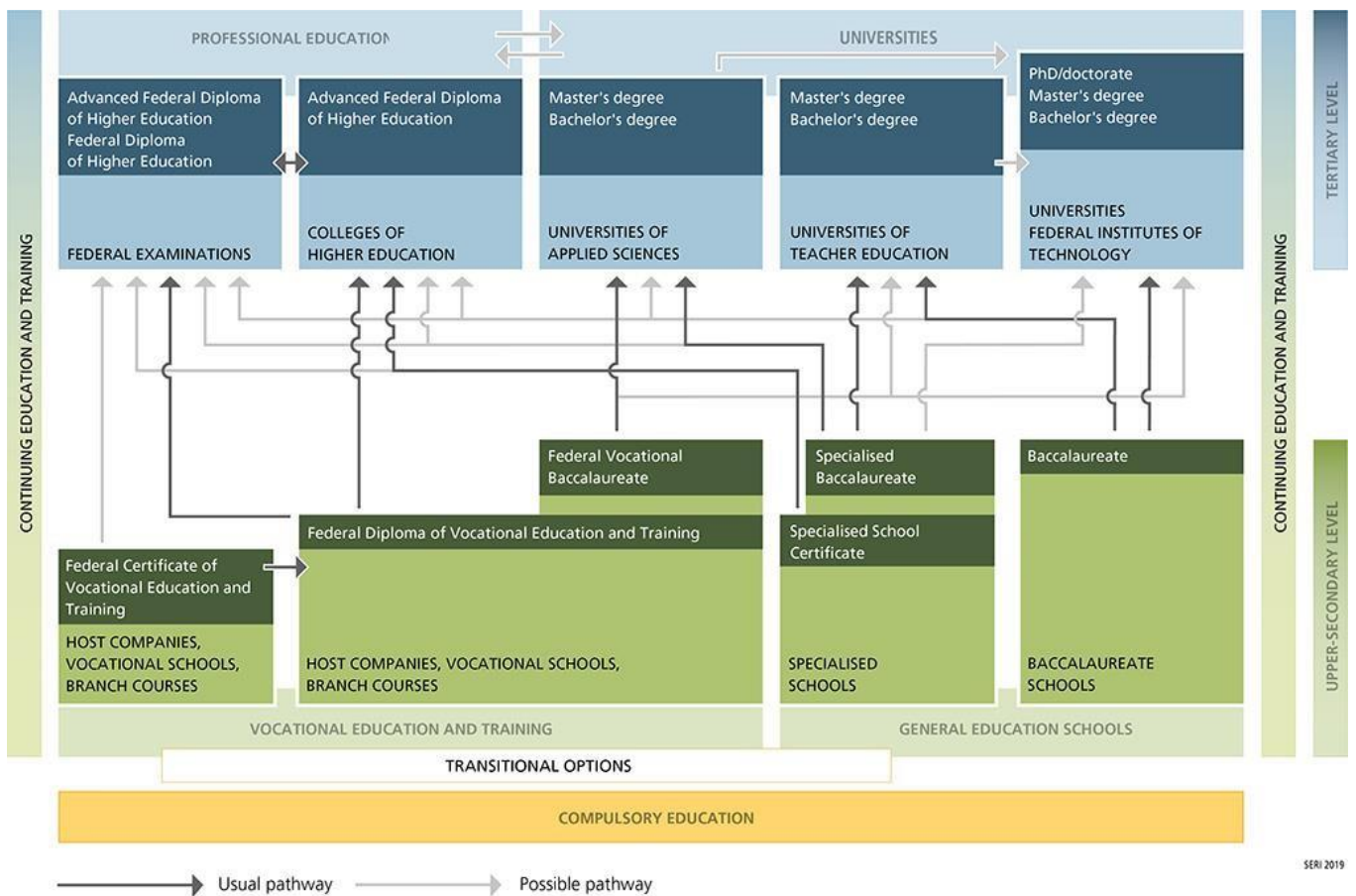


Figure 1. The Swiss and canton Ticino educational systems (ODEC, 2023)

As shown in Figure 1, there are different degrees and branches of vocational training in the Swiss education system. Concerning vocational education, a distinction must be made between full-time training and training that is provided as a part of a “dual system”, namely a combination of vocational education at school and apprenticeship in a company.

In this study, the analysis is focused only on apprentices attending the dual vocational education system. In Switzerland, initial vocational training (secondary level I) allows, through learning, the acquisition of certified vocational qualifications; it can be achieved through a Federal VET Certificate, taking 3 or 4 years, or through Federal VET Diploma which has a duration of 2 years. The Federal Vocational Baccalaureate completes the initial vocational training (Federal VET Diploma) and allows access to tertiary-level education. The main characteristic of the dual vocational

training system is its orientation towards the workplace. In addition, training is divided into three settings: vocational school, training company, and cross company introductory training courses. In the vocational school, vocational knowledge as well as general culture are taught. In the training company, on the other hand, apprentices acquire professional knowledge and skills in an active manner by participating in the process of production in the enterprise. Finally, cross company introductory training courses complement the training provided in organization and schools and are set up by the branches themselves.

Apprenticeship training is the predominant form of upper secondary education program in Switzerland. This is especially true for the German part of Switzerland, where VET programs as well as the apprenticeship-based dual form of VET is more common than in the French and Italian part of Switzerland. Several studies (Stalder, 2017; USTAT, 2022) have shown that young people from Ticino have often a preference for the general educational system if they are eligible. In Ticino, between 2003/04 and 2020/21, between 40% and 45.5% of young people enrolled in an upper secondary school and between 42% and 51% attended a full-time or part-time vocational school after completing compulsory school (Marcionetti, 2023).

### *1.6.1 Aim of the study and hypotheses*

Because of the recentness of the construct of decent work, the first aim of this work was to investigate further, whether the components found in the literature are sufficient or whether other dimensions need to be added in the definition of decent work. In this regard, Masdonati et al. (2019) in their study on Swiss workers suggested that the components of decent work “might be more complex and cover additional key dimensions than those assessed in the DWS [Decent Work Scale]” (p. 25). For this reason, a first study (Chapter 3) on the definition of the construct of decent work was conducted to expand the existing definition and include new aspects of decent work.

The second aim of the thesis was to understand how the previously presented more individual and more contextual characteristics, including decent work, relate with each other and determine

apprentices' job and life satisfaction. Based on the literature previously presented we formulated the following hypothesis of relationships (see Figure 2):

As also shown by PWT theory (Duffy et al., 2016), having some complementarity of values with one's environment (complementary values) makes one more likely to define one's work as decent. In addition, based on recent studies (e.g., Gibb & Ishaq, 2020; Green, 2021), perceiving that one has a margin of control over one's experience at work is important in defining one's work as decent. Therefore, the following hypothesis was formulated:

*H1 A higher person-environment fit, and a high level of job control positively influence decent work perception.*

Second, based on Hall's (2013) the type of NWO influences well-being, the outcome of decent work. Hence, it is possible that the relationship between NWO and well-being can be mediated by the perception of decent work. In addition, more individual variables such as proactivity, perceived self-efficacy and career adaptability normally influence the experience at work in terms of perceived decent work (e.g. Sheng & Zhou, 2021; Zammitti et al., 2021). Therefore, the following hypothesis was formulated:

*H2 Nonwork personal life orientation, nonwork family orientation, nonwork community service orientation, proactivity, occupational self-efficacy and career adaptability influence decent work perception.*

In addition to influencing the perception of decent work, as formulated in H1, good person-environment fit, according to Edwards' (1998) theory, is supposed to positively influence well-being at work and in life. Equally, the JDC model (Karasek, 1979) says that having some margin of control at work allows one to cope with perceived occupational stress and thus, indirectly, increase well-being. Therefore, the following hypothesis was formulated:

*H3 Higher person-environment fit, and a high level of job control positively influence job and life satisfaction and negatively occupational stress levels.*

According to Hall (2013) and subsequent literature the type of NWO influences well-being. Equally, according to previous studies and theories, proactivity (e.g., Lent & Brown, 2006; 2008), perceived occupational self-efficacy (e.g., Burger & Samuel, 2017), and career adaptability (e.g., Urbanaviciute et al., 2019) also influence occupational and life well-being. Based on this, the following hypothesis was formulated:

*H4 Nonwork personal life orientation, nonwork family orientation, nonwork community service orientation, a high level of proactivity, occupational self-efficacy and career adaptability positively influence job and life satisfaction and negatively occupational stress levels.*

PWT states that decent working conditions lead to well-being. Within the thesis, well-being was operationalized with the three variables of job satisfaction, life satisfaction and occupational stress. Drawing inspiration from what Duffy and colleagues said in the PWT, the following hypothesis was then formulated:

*H5 Decent working conditions will positively influence job satisfaction, life satisfaction and, negatively, stress levels.*

The transition from the first to the second year of education implies changes at multiple levels. Therefore, it was decided to study how, over time, the relationships between different variables change and the following hypothesis was formulated:

*H6 The developmental trajectories of some individual and contextual variables are supposed to have an impact on decent work perception and, consequently, on job and life satisfaction and level of stress.*

Finally, the fact of being a man or a woman as well as the fact of being in the first vs. last year of apprenticeship influences the variables tested as well as their relationships to each other. For this reason, the following hypothesis was formulated:

*H7 Gender and tenure (short or long) influences every single variable and / or the hypothesized reciprocal relationships.*

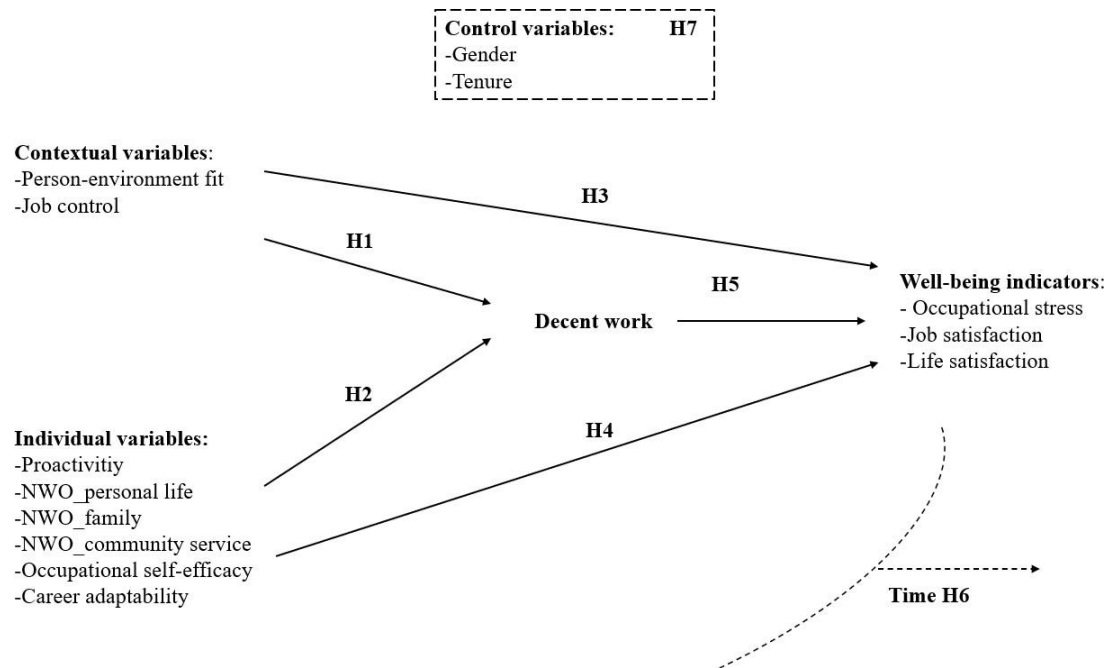


Figure 2. Global illustration of the initial hypothesis

### 1.6.2 Methodology

In this chapter, I will briefly present the instruments that were used, the procedures that were adopted, and the participants who ultimately took part in the study to give a global overview of where and especially how the data were collected and analyzed. The study is divided into a qualitative part, in which interviews were conducted with specialists in vocational guidance and career counseling, and a quantitative part, consisting of the administration of a series of questionnaires to apprentices in vocational training.

Firstly, the qualitative data collection was performed using semi-structured interviews to investigate the concept of decent work and the resources to access it through questions to stimulate the reflection on the subject. Secondly, concerning the quantitative part of the study, questionnaires were used to collect data. More information on the scales used and the participants involved is presented in chapter 2.4 and 2.5.

### 1.6.3 Data collection procedure and participants

Concerning the qualitative part, semi-structured interviews were performed including a series of open-ended questions to which the interviewees could answer freely (Crano & Brewer, 2002). The interviews were performed in February – March 2020: seventeen specialists in vocational guidance and career counseling working in Southern Switzerland, including career counselors, apprenticeship commissioners, adult educators, and personnel consultants, were questioned. These specialists were all working in a public career center that provides free information, guidance, and support. They all have very good knowledge of the local labor market. For this reason, they certainly have good empirical knowledge of how decent work could be defined and ideas of personal resources that may help people access decent work in their context. The concept of decent work and the resources to access it was investigated via two main questions asked in order to trigger a process of reflection on this subject: “What components do you think a job should have in order to be considered decent or acceptable?” and “Given the current labor market conditions, what do you think would be the means or the resources available to obtain decent work?”. When the questions asked were not clear, they were reformulated in other ways so that they could be answered clearly and completely. After obtaining their informed consent to participate, the first author met each of the subjects individually. Nine participants were met at their offices, and face-to-face interviews were performed. Given the pandemic context, for the other eight participants, telephone interviews were performed. The interviews lasted half an hour on average and were recorded and transcribed.

Regarding the quantitative part of the study, a questionnaire was administered online using the Qualtrics survey software. The participants were two groups of apprentices enrolled in a three-year VET program from five public vocational school institutes. They were involved at two times. The first group of involved apprentices were in the middle-end of their 1st year in March-Mai 2021 (i.e. at T1) and in the middle-end of their 2nd year in March-Mai 2022 (i.e. at T2). The second group of involved apprentices were at the middle-end of their third and last year (T1; March-Mai 2021). At T2 (March-Mai 2022), only a part of this second group of apprentices could be reached: only those who had given at T1 their contact details (telephone number or email address) received and answered

to the questionnaire asking for information about their educational and/or employment situation. Nevertheless, data from this last group of participants were not used, because the number of respondents to the questionnaire was too small for reliable analyses to be conducted.

For each of the two data collections, the students were personally reached out in their IT classrooms, and it was explained the topic of this study and how to open and complete the questionnaire. In some cases, the teacher or the vice-director was present at the beginning of the questionnaire administration to motivate apprentices to engage in this task with care.

On the first page of the questionnaire, it was presented to all an informed consent, in which the content and purpose of this study was presented, in which it was specified that anonymity was respected and that there was no risk in participating in the study. Participation was not compulsory and only after selecting the answer 'Yes, I give my consent, I participate in this study', participants could access the survey questions.

#### *1.6.4 Instruments*

For the qualitative part, semi-structured interviews were performed using a preformed track and a recorder to register every interview; the same instruments were used for both face-to-face and for telephone interviews.

For quantitative data collection, an online structured questionnaire was used. During the first data collection (T1), in the first section, questions on basic socio demographic information (gender, date of birth, country of residence, nationality, and family situation) were included. The second section contained questions about academic situation: more recent number of bad marks, if some school years were redone and which courses (attitudinal or basic) were attended during the middle school in mathematics and German. In the third section, it was asked about the training situation: the company's size and the salary gained were two-collected information. The fourth section contained questions about linearity of career and academic path: it was asked if another apprenticeship in another profession was previously achieved and plans for next year (e.g., abandoning the current apprenticeship for another, starting a new job or a new school, etc.). Finally, the fifth and last section,



contained psychometric scales that were used to assess the variables and the concepts theorized in the hypothesis. Firstly, job and life satisfaction were measured respectively through the Italian version (Masdonati et al., 2019) of the Job Satisfaction Scale developed by Judge et al. (1998) and through the Italian version (Di Fabio & Palazzeschi, 2012) of the Satisfaction with Life scale (Diener et al., 1985). Occupational stress was also assessed with the Italian version of Perceived stress-at-work scale (De Bruin & Taylor, 2005), developed by Marcatto and colleagues (2015). Secondly, individual characteristics were assessed by measuring the level of occupational self-efficacy, through the Italian version of Occupational Self-Efficacy Scale (Schyns & von Collani, 2002) developed by Tani et al. (2009), the score of proactivity, using the Italian version of the Proactive Personality Scale developed by Bateman and Crant (1993) and career adaptability, through the Italian version of the Career Adapt-Abilities Scale (Savickas & Porfeli, 2012) developed by Soresi et al. (2012).

Nonwork orientation and work-life balance were also assessed: the Nonwork Orientation Scale (Hall et al., 2013) measured the first variable while the second was assessed by a personal adaptation of some items extracted by validated scales measuring work-family balance and work-leisure-family balance (Brough et al., 2014). The items present in these scales were adapted in order to also assess the missing dimension of work-school balance. Moreover, two variables related to organizational context were measured: the P-E fit and the degree of job control. P-E fit was measured with the Perceived Person-Environment Fit Scale developed by Chuang et al (2016) and translated in Italian. Specifically, regarding the items related to the Person-supervisor fit, the Italian version refers to one figure that apprentices are familiar with: the apprenticeship supervisor. In every company, in Switzerland, there is the figure of the trainer, a professional in the discipline in which the apprentice is training. The trainer's purpose is to follow the apprentice in the company daily and be a support for him/her in learning the profession.

To assess job control, three items of the Short Questionnaire for Job Analysis (Prümper et al., 1995) were translated. Lastly, decent work perception was measured by the validated Italian version of the Decent Work Scale, realized by Masdonati and colleagues (2019).

During the first and second data collection, the same scales were used and almost the same questions were asked. For the group of participants who were in their second year of apprenticeship at T2, a split was made between those who had already completed the questionnaire in their first year and those who were absent during the day of administration or only entered the class in their second year. Those who had already answered the questionnaire at T1 completed a questionnaire like the previous one except for a few questions (e.g., socio-demographic information or information about their schooling during middle school) that were no longer asked because they had already been obtained during the first data collection. Those who had not completed the questionnaire at T1, on the other hand, answered the entire questionnaire to obtain all the information about them and their background. Finally, some minor changes were made to some items, which were reformulated to be easier to understand and some items belonging to the P-E fit scale were eliminated.

#### *1.6.5 Database cleaning and merging, missing data, and missing students*

Regarding the qualitative part of the study, the interviews were recorded and transcribed, and the totality of the interviews was analyzed.

All the information collected with questionnaires was directly downloaded from Qualtrics after the last administration of each wave in SPSS format. The database was merged after the end of every wave of data collection, depending on the type of analysis performed: first year vs. third-year apprentices or longitudinal analyses. Database cleansing was performed, excluding questionnaires with implausible answers, and questionnaires of students who took an excessively short time to complete the questionnaire. After that, different procedures to implement data cleaning was applied. Firstly, the data relating to responses for a specific scale when the apprentice did not provide a response for more than two items (i.e., when the missing responses for a scale were more than two) were eliminated. Secondly, the responses for each scale that diverged excessively from the distribution of the mean of the respondents were discarded, applying the Mahalanobis distance calculation and eliminating the resulting outliers. Finally, when an apprentice gave answers to a scale that were only in the neutral range (e.g., "neither agree nor disagree"), the data associated with his/her

answers were eliminated. Regarding missing data, to not force responses, it was decided to not apply Qualtrics's option of forcing response but for each question that the person missed, the number of missing answers was indicated, while leaving the possibility of proceeding with the questionnaire by leaving the answer unanswered. In addition, some apprentices did not close the questionnaire properly. Thus, for them, only partial data were saved. After database cleaning, 530 questionnaires were considered valid for the first data collection, 298 for the group of first-year apprentices and 232 for the third-year apprentices. Instead, at the second data collection, realized among the apprentices that at T1 were at the end of their first school year and were and at T2 were in their second year, 277 questionnaires were collected and considered valid. However, only 196 apprentices who completed the questionnaire in the first year (T1) also answered in the second phase of data collection (T2), moreover, 81 apprentices answered the questionnaire at T2 but not at T1. From the first to the second year, 102 apprentices were missing due to illness, school dropout, or transfer to another school.

The sample that was used in each published study is specified in the articles that are reproduced in Chapters 3 through 6.

## 2 Representations of decent work and its antecedents among vocational guidance and career counselling specialists<sup>2</sup>

### 2.1 Abstract

Inspired by Psychology of Working Theory (PWT), the aim of this study was to investigate vocational guidance and career counselling specialists' perceptions of decent work and of the resources that promote access to decent work by using qualitative methods analyses. With this objective, 17 Swiss professionals were interviewed. First, content analysis showed that, in addition to dimensions considered by PWT, positive relations at work should be considered as part of decent work. Moreover, in addition to the resources considered by PWT, soft skills development emerged as important to access decent work. Second, textual analysis highlighted that specialists' representations of decent work and the resources that facilitate access to it differ according to their professional category.

*Keywords:* decent work; working conditions; career counselling; vocational guidance; content analysis; textual analysis.

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<sup>2</sup> Zambelli, C., Marcionetti, J., & Rossier, J. (2022). Representations of decent work and its antecedents among vocational guidance and career counselling specialists. *British Journal of Guidance & Counselling*, 51(4), 646-660. doi.org/10.1080/03069885.2022.2124401

## 2.2 Introduction

The International Labor Organization (ILO, 2012) considers decent work a fundamental human right and one of the major challenges the world is facing today. The importance of access to decent work was already emphasized in 1948 by the United Nations (UN) in the *Declaration of Human Rights*. Article 23, paragraphs 1 and 3, states that "Everyone has the right to work [...] to just and favorable conditions of work and to protection against unemployment [...]. Every worker has the right to just and favorable remuneration [...] to an existence worthy of human dignity" (p.75). According to the ILO (2012), the conditions for defining work as decent are having access to full and productive employment, having rights at work, having social protection guarantees and promoting social dialogue. The concept of decent work appears to be a central element of *Psychology of Working Theory* (PWT) (Duffy et al., 2016). The PWT states that decent work encompasses five characteristics: (1) physical and interpersonally safe working conditions (e.g., absence of physical, mental, or emotional abuse), (2) hours that allow free time and adequate rest, (3) organizational values that complement family and social values, (4) adequate compensation, and (5) access to adequate health care (Duffy et al., 2016). The definition of decent work has been discussed by several authors. For example, Masdonati et al. (2019) in their study on Swiss workers suggested that the components of decent work "might be more complex and cover additional key dimensions than those assessed in the DWS" (p. 25). They suggested that dimensions related to job security and opportunities for personal and professional development may be added to complete the conceptualization of decent work. Rossier and Ouedraogo (2021) further suggested that social recognition may be an especially important aspect of decent work in non-Western cultures. Finally, Di Fabio and Kenny (2019) in their study on Italian university students observed that decent work was mostly characterized by good remuneration and positive relations at work. These findings seem to indicate that the concept of decent work needs to be further explored.

PWT also includes contextual and psychological variables that are hypothesized to influence access to decent work and variables that are hypothesized to moderate the relations between

contextual and psychological variables and decent work (Duffy et al., 2016). According to the authors, marginalization and economic constraints directly and indirectly influence access to decent work. Their negative effects on decent work might be mediated by an individual's perception of choice in career decision making, known as work volition (Duffy et al., 2016); and by self-regulatory career strengths, especially career adaptability (Savickas & Porfeli, 2012). Moreover, Duffy et al. (2016) have proposed that other psychological and economic variables such as proactive personality, critical consciousness, and social support moderate the relations between contextual variables, psychological variables, and decent work. Finally, there would be two outcomes of obtaining decent work: work fulfilment and well-being. Duffy and colleagues (2016) stated that the PWT model is not exhaustive and "can be expanded to encompass additional constructs and contextual factors as research evolves and informs the development of new questions and problems" (Duffy et al., 2016, p. 131).

Currently, studies have focused on the psychological resources already included in PWT (work volition and career adaptability) in relation to decent work. Few have explored what other psychological resources might be linked to access to decent work (Rossier & Ouedraogo, 2021). As emphasized by positive psychology (Peterson & Seligman, 2004), and implied by PWT, it is important to focus on the resources that people can develop and bring to bear on decent working conditions. These resources are not limited to career adaptabilities and work volition. We therefore felt it was important to explore, with the help of specialists in vocational guidance and career counselling, additional resources that could be added to the model proposed by PWT. Considering the important role of decent work in meeting human needs for survival, social connection, and self-determination, this study helps us propose new resources, alongside career adaptability and work volition, on which to focus interventions aimed at improving access to decent work, particularly for those with disadvantaged starting conditions.

Semi-structured interviews are a very useful qualitative method to explore key informants' perceptions, experiences, and ideas on specific topics (Della Porta, 2010; Joo, 2009; Parola &

Marcionetti, 2020). However, it is important to choose the right methods for analyzing the information collected with semi-structured interviews. Content analysis is a method that allows making replicable and valid inferences from data to their context (Krippendorff, 1980; Mayring, 2000). The aim of this approach is to provide knowledge, new insights, and new representations of facts. It implies choosing some categories linked to the research question that are used to analyse a conversation or a text. This method has advantages such as the identification of the main aspects contained in a message and the way the message is expressed. However, a disadvantage of content analysis is that the analysis can be quite sensitive to the researcher's objectives and corpus of data (Tommasetto & Selleri, 2004).

Another analytic method is textual analysis, which allows studying the frequency of occurrence of the words in a quote and the analysis of the main topics emerging within a conversation or a text (Roure & Reinert, 1993). An advantage of this method is that we can analyze the internal structure of a corpus, which is not determined by the post coding matrixes chosen by the researcher but results from the distribution of the words chosen by narrators to discuss a certain topic (Tommasetto & Selleri, 2004). Textual analysis was used by Di Fabio and Kenny (2019) to study which components a job should have to be considered “decent” or “acceptable” and by Zammiti et al. (2021) to analyze decent work representations of Italian adolescents. If mixed approaches (combining quantitative and qualitative approaches) for data collection are becoming more popular, few studies have so far combined content and textual analyses of interviews (Sakki, 2010).

Overall, it seems that (1) there are context-specific dimensions that could be added to the concept of decent work, (2) it is important to explore the psychological antecedents (i.e. the resources) that may mediate the effect of contextual conditions (marginalization and economic conditions and constraints), and (3) a qualitative approach might be particularly adapted to investigate these aspects. Indeed, some studies have explored the concept of decent work (but not the resources that might facilitate access to it) using a qualitative approach. Masdonati et al. (2019) and Di Fabio and Kenny (2019) included an open-ended question in a questionnaire designed for adult workers and Zammiti

et al. (2021) did the same within a questionnaire designed for adolescents. However, no studies have explored the perceptions of specialists in vocational guidance and career counselling about these topics. These specialists, coming into daily contact with people seeking suitable education/training or employment in the specific context in which they work, should be in the best position to help define what decent work is and what resources facilitate its attainment. Hence, our study had two main aims: first, to understand what other dimensions might complement the current definition of decent work; and second, to understand what psychological resources might facilitate access to decent work from career specialists' point of view. In addition, we hypothesized that the definition of decent work and the representation of resources useful to access it may vary by profession, even among career specialists. Moreover, two complementary methods of analysis, content and textual, were adopted for the analysis of the transcribed text.



## 2.3 Methods

### 2.3.1 *Participants*

Seventeen specialists in vocational guidance and career counselling working in Southern Switzerland (five career counsellors, four apprenticeship commissioners, five adult educators, and three personnel consultants) were interviewed. These specialists were all working in a public career center that provides free information, guidance, and support. They all have very good knowledge of the local labor market. For this reason, they certainly have good empirical knowledge of how decent work could be defined and ideas of personal resources that may help people access to decent work in their context.

These specialists have different profiles. Career counsellors, with a university degree in vocational psychology, provide information to support vocational training projects and search tools for basic training education. Apprenticeship commissioners provide information about vocational education and training related to apprenticeship topics, such as contractual terms and conditions in their professional field. Personnel consultants specializing in human resources management give information about regional employment office centers and details about different job search tools. Finally, adult educators specializing in lifelong learning provide information on the possibility for adults to have continuous education courses and how to access them. Specifically, in our sample there were 10 women and 7 men; the participants' professional experience ranged from 1-2 years of work for the youngest specialists, and up to 15-20 years for the most experienced participants. The mean professional experience was 11.5 years.

### 2.3.2 *Data collection and procedure*

The semi-structured interviews included a series of open-ended questions to which the interviewees could answer freely (see Crano & Brewer, 2002). First, the interviewers explained that decent work is an employment that meets the minimum acceptable standards for a good life. Then, they investigated the concept of decent work and the resources to access it via two main questions asked in order to trigger a process of reflection on this subject: “What components do you think a job

should have in order to be considered decent or acceptable?” and “Given the current labour market conditions, what do you think would be the means or the resources available to obtain decent work?”. When the questions asked were not clear to the participant, they were reformulated in other ways so that they could be answered clearly and completely.

After obtaining their informed consent to participate, the first author met each of the subjects individually. Nine participants were met at their offices, and face-to-face interviews were conducted. Given the pandemic context, for the other eight participants, telephone interviews were used. The interviews lasted half an hour on average and were recorded and transcribed.

### *2.3.3 Analyses*

#### *Content analysis*

Content analysis is a qualitative analysis method that is widely used in the social sciences and has its roots in the sociological tradition of ethnomethodology (Schegloff et al., 1974; Wilkinson & Kitzinger, 2008). The purpose is to understand how social agents give meaning to the social world (Garfinkel, 1967). We therefore proceeded with content analysis of consultants' quotes using the Atlas.ti software (Vardanega, 2008), which allows for the analysis of qualitative information. The interviews were coded by the first two authors of this study. Codes included dimensions of decent work according to PWT and new dimensions not included in PWT that spontaneously emerged from the interviewees' discourses. The reliability of the codification was assessed using Cohen's kappa coefficient to obtain a quantitative measure of agreement between the two raters on all dimensions (and their own subdimensions). The data showed good interrater reliability with a kappa value of .85 (>.60; Field, 2009).

#### *Textual analysis*

Second, we proceeded with textual analysis, thus studying the frequency of occurrence of the words in a quote and analysing the main topics emerging within a conversation or a text (see Roure & Reinert, 1993). The Alceste software, which allows us to conduct this specific analysis, was used. This software also makes it possible to identify the presence of different sets of statements (classes)

that are similar in terms of their vocabulary co-occurrence, assessed with chi-squared statistics. Next, a hierarchical classification of the classes was identified using Alceste. In this type of analysis, to begin, all words are in the same classes; and at each stage, after having defined some separation criteria, one class is separated into two (Reinert,1987).

Alceste also conducts corpus modelling, which consists of building classes of statements that have different profiles. We also used this software to identify significant differences between the four categories of specialists in the identification of the key resources for decent work. Another important analysis in Alceste is correspondence analysis, a multivariate statistical technique applied to categorical data, which provides a means of displaying or summarizing a set of data in two-dimensional graphical form (Benzécri, 1982). In our analysis, we considered the variable “career and work specialists” and its four modalities: “career counsellors”, “apprenticeship commissioners”, “adult educators”, and “personnel consultants”.

## 2.4 Results

### 2.4.1 *Components of decent work and resources emerging from content analysis*

Based on the answers of the seventeen interviewees to the first research question, we were able to code and distinguish four categories of components of decent work (Table 1).

Three of these categories are already included in the conceptualization of decent work of PWT (Duffy et al., 2016): working conditions, work-life balance, and adequate compensation. One aspect emerged as a potential new component of decent work, that is positive relations at work. Second, we focused our analysis on potential resources that could help people obtain decent work. Like PWT assumes, we also found that economic conditions and constraints influence the access to decent work, but our analysis also seems to show that soft skills are new potential resources to obtain decent work.

Finally, we identified some additional comments that were mentioned by only one or two participants (Table 1). Concerning additional components, we found that one or two people consider control, legitimate tasks, person-job fit, social recognition, social value of work, and person-organization fit in terms of values as important aspects of decent work. Moreover, regarding additional resources, four elements were reported by one or two specialists as potential resources to achieve decent work: motivation, interest, opportunities of lifelong learning, and work volition.

Table 1

Categories and subcategories of the components of decent work and of the resources permitting access to it and the number of specialists that cited them ( $N=17$ ).

<b>Decent work components</b>		
<b><i>Components already included in PWT</i></b>		
<b>Category title</b>	<b>Subcategory title</b>	<b><i>f</i></b>
1. Working conditions	1.1. Physical safety	2
	1.2. Interpersonal safety	6
2. Work-life balance		5
3. Adequate compensation		12
<b><i>Components not considered in PWT</i></b>		
<b>Category title</b>		<b><i>f</i></b>
1. Positive relations at work		6
<b><i>Additional comments</i></b>		
<b>Category title</b>		<b><i>f</i></b>
1. Control		1
2. Legitimate tasks		2
3. Person-job fit		1
4. Social recognition		2
5. Social value of work		1
6. Person-organization fit in terms of values*		1
<b>Resources for achieving decent work</b>		
<b><i>Resources already included in PWT</i></b>		
<b>Category title</b>		<b><i>f</i></b>
1. Economic conditions and constraints		12
<b><i>Resources not considered in PWT</i></b>		
<b>Category title</b>		<b><i>f</i></b>
1. Soft skills		3
<b><i>Additional comments</i></b>		
<b>Category title</b>		<b><i>f</i></b>
1. Motivation		2
2. Interest		1
3. Opportunities of lifelong learning		2
4. Work volition*		2

*Note.* The sign \* indicates those components/resources that are included in PWT but did not emerge as particularly relevant in this study.

#### 2.4.2 Components of decent work already included in the PWT

*Working conditions.* First, it seems that safe working conditions are an important aspect in order to define work as decent. In line with PWT, which states that physical and interpersonally safe

working conditions qualify decent work (Duffy et al., 2016), we identified two subcategories of working conditions: *physical safety* and *interpersonal safety*. Examples include the following: “Yes, so clearly the fact that we cannot work in the noise that brings deafness [...] or in summation [decent work] is a condition that preserves people and lets them work peacefully” and “I don’t know, if I consider the work in [country] maybe that isn’t decent because... I don’t know [...] the employers’ behaviors aren’t regulated, so it’s not decent for these reasons”.

*Work-life balance*. Second, in their answers, five specialists considered the balance between private and professional life an important element of decent work: “First, being able to balance my private life with my job obviously [...]. It’s decent being able to balance what is private and what is professional [...]. Therefore, working hours permits me to stay with my family and have a regular private life [...]”. Additionally, in this case, the interviewees conform to PWT (Duffy et al., 2016) and, particularly, they recognize the importance of having a job that allows for free time and adequate rest, in this case permitting an adequate work-life balance.

*Adequate compensation*. Third, the aspects relating to adequate compensation that allow secure and sufficient income at the end of the month were cited by twelve specialists. A career specialist clarified: “Certainly, the salary plays an important role. We have already mentioned this fact. If I work at 100% for 1800 francs [1565 British pound sterling] per month, this is not what I call decent work”. The salary category also includes the terms and conditions of an employee, as some specialists stated: “Hourly work is not decent, and working on demand is also [not decent] ... because this fact implies that I’m available 24 hours a day but I’m still forced to ask for social assistance”.

#### 2.4.3 Components of decent work not considered in the PWT

*Positive relations at work*. The analysis identified one main category not considered in PWT that was associated with decent work. This category, noted by six participants, referred to the social aspect of work: in our analysis, we called it positive relations at work. An interviewee stated: “Feeling part of the group regardless of my role in the organization and a work environment where I’m

considered”. It seems that having positive relations with colleagues or supervisors at work is an element that could qualify work as decent.

#### 2.4.4 Additional comments regarding components of decent work

In addition to positive relations at work, five other components emerged as potentially new because they were not identified by Duffy et al. (2016). However, only one or two interviewees cited them. First, for one expert, it seemed important that an employee have a certain degree of autonomy in his or her job, i.e., *control*: “Regarding the degree of autonomy, it is clear that if you feel like you are working like a slave, even if you like the job, in the long run, you may feel worn out. Therefore, there should be some flexibility in the decision-making process, shouldn’t there?” Second, two specialists also recognized a decent environment where a person perform *legitimate tasks*: “In my opinion, being forced to do a job, maybe degrading, that is not a part of person’s tasks is not decent”.

A third category that emerged in a quote from one interviewee was *person-job fit*: “Exactly, I would say that this aspect mainly refers to a job that fits the person or the person fits the job, where he can make use of his own abilities and take others. It’s a job where there is an exchange of this kind beyond the economic aspect”.

The last two categories identified by three participants referred to the social aspect of work. The first category was referred to *social recognition*, which was mentioned by two interviewees: “There are apprenticeships for ordinary cleaning workers... the guys look me in the face and say ‘What do you propose? Do you think I am going to wash the windows of a building? Are you making fun of me?’ No, I say. These are professions that permit the development of solid skills... it is a bit like the image you have of decent work”. The last new category, called *social value of work*, was mentioned by one specialist and was conveyed as follows: “In all professions, you provide a service for someone, don't you? In my opinion, this is decent... the fact that the person, through his/her work, performs a service for someone, is not? Whether it is a painter, medical assistant, executive officer... in my opinion, this is part of dignity”.

Finally, in this study, only one participant judged the *person-organization fit in terms of values* as an important aspect that defines decent work, despite this aspect being included in the definition of decent work in PWT. The interviewee commented on this by saying: “The activities should not go against the person’s values, for example”.

#### 2.4.5 Resources already included in PWT

The analysis confirmed the existence of an element that PWT (Duffy et al., 2016) also considered a resource to obtain decent work (see Table 1). Twelve specialists recognized that the situation in terms of *economic conditions and constraints* is an important resource to consider when discussing decent work: “We can’t define if work, per se, is decent or not because... if there is this line that determines my career... here I am at the top and I've done 100 while here it’s zero... then, if I’m at this point and I come from here, this is probably less than zero for me and it’s 100 for another person”. These statements explain how the economic conditions and constraints of people affect access to decent work.

#### 2.4.6 Resources not considered in PWT

The analysis also highlighted the existence of one new resource that might help people access decent work. In three expert’s quotes, *soft skills* emerged as important to achieve decent work: “Some years ago, after their university studies, one person obtained a job, maybe even a job with responsibilities... we are talking about those people who are now retiring. Today, it’s not like this anymore. Now it’s no longer enough to have a university degree. You need a whole series of other skills and other qualities that are not necessarily taught at university or at school, so we have to bring these skills out of people”.

#### 2.4.7 Additional comments regarding resources

There are three other potentially new additional resources, not included in Duffy et al. (2016) and cited by only one or two specialists in this study. Firstly, in two experts’ quotes, we found that *motivation* is a way to achieve decent work: “Surely, the problem is that everything is played on grit. How do you acquire grit? If you want a decent work, you also must be gritty”. The second resource



mentioned is *interest*, and the following was stated: “You have to transmit passion, [the person should show that he/she thinks] ‘I want to do it because I’m interested in it’”. The third resource mentioned by two specialists is *opportunities of lifelong learning*. An example quotation is the following: “Decent work means that, for example, the employer assumes the costs and participates in the organization of continuing education courses. It is the employer who supports the continuing education for employees”.

Finally, *work volition* – a resource cited by PWT, was recognized by only two specialists as an important resource to obtain decent work: “You have decent work when you chose a job that is in your plans... so you choose it for yourself without the pressure of someone else”.

#### 2.4.8 Differences in specialists’ representations as described by a textual analysis

In order to analyze the differences in the specialists’ quotes, first, descending hierarchical classification (DHC) divided 60% of our corpus of analysis into four classes. The class profiles were established based on three variables: sex ("male" vs. "female"), years of professional experience ("experience >10 years" vs. "experience <10 years"), and the profession of specialists interviewed ("career counsellor", "apprenticeship commissioner", "personnel consultant" and "adult educator"). For each class, we computed the number of observations of modalities, the associated percentages, and the chi-squared statistics that indicated the strength of the links. The higher the index chi-squared statistic, the stronger the belonging of the variable to the class (see Table 2).

Table 2

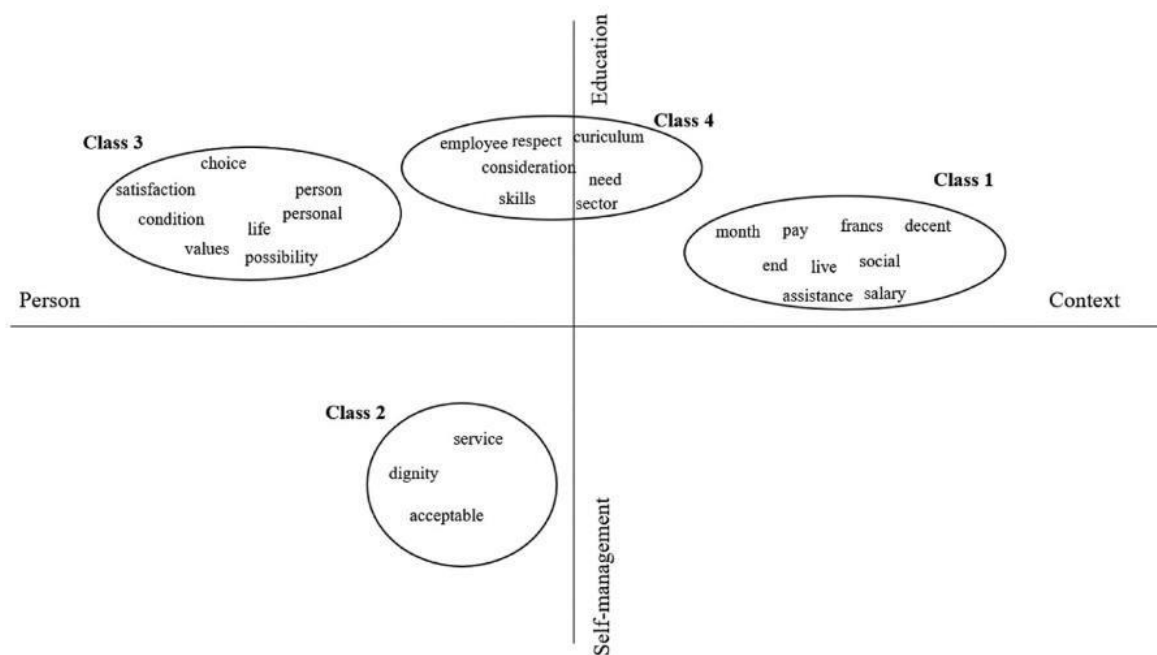
Extracts of class profiles

Class	Effectives	Percentage	Chi-squared	Modalities
Class 1	10	20	0	*sexe_woman
	7	28,57	3	*expe_<10 y
	3	33,33	11	*prof_personnel consultant
Class 2	4	25	4	*prof_apprenticeship commissioner
Class 3	5	20	3	*prof_career counsellor
Class 4	10	20	2	*expe_>10 y
	7	28	4	*sexe_man
	5	20	6	*sect_lifelong learning

*Note.* Class: class identification; Effectives: number of observations for each modality for every class; Percentage: percentage of presence of the modality per class; Chi-squared: chi-squared statistic of the association of the modality to the class; Modalities: identification of the significant modalities of each class.

Next, we established the profile of each class. According to the results of this analysis, it seems that personnel consultants produce more quotes that fit into Class 1 and apprenticeship commissioners provide more quotes belonging to Class 2. Finally, Class 3 and Class 4 reflect the quotes of career counsellors and adult educators respectively.

Figure 1. Correspondence analysis graph



*Note.* Alceste distributed the four classes in four quadrants.

#### 2.4.8.1 Decent work according to personnel consultants

Class 1 poses salary conditions as the central element defining decent work. The precarious labour market conditions in the Italian speaking part of Switzerland led personnel consultants to give major weight to salary remuneration when discussing dimensions of decent work. Always faced with situations of unemployment and precariousness, these professionals associate the idea of decent work with a situation where a person can satisfy his primary needs (housing and food). In this sense, some keywords in Class 1 are the following: *end, month, pay, salary, francs, live, decent, social, and assistance*.

#### 2.4.8.2 Decent work according to apprenticeship commissioners

Apprenticeship commissioners considered the social recognition of a job to be part of decent work. They explained that consideration and acceptance by the group are two important aspects when an individual chooses a job. The interviewees mentioned two elements several times: social value and social recognition of work (Class 2). In their quotes, these specialists, who always work with apprentices, consider the altruistic-social aspect of a job as an element of decent work. *Dignity, acceptable, and service* are some keywords that emerged in textual analysis.

#### 2.4.8.3 Decent work according to career counsellors

These specialists underlined how the topic of decent work is also an individual element dependent on individual subjectivity. Career counsellors are always familiar with working on a person's professional choices and affirm that decent work is also a question of "self-management", the ability to adapt oneself to external conditions. According to these specialists, the development of soft skills is a crucial resource to have success in finding a balance between various external constraints imposed by an ever-changing labour market (Class 3). Vocational guidance means giving a person the tools to choose his or her own path. In line with this, decent working conditions would depend, in part, on how a person is able to adapt and adjust the external work context to his or her own needs and values. Following this logic, the keywords in Class 3 were the following: *possibility, choice, condition, personal, satisfaction, life, values, and person*.

#### 2.4.8.4 *Decent work according to adult educators*

Adult educators discussed respect for the employee, continuous skills development (technical and soft skills) and adaptation of curricula to labor market needs (Class 4). Two subcategories can be distinguished in Class 4: one related to lifelong learning and the other more focused on individual respect at work. Concerning opportunities of lifelong learning, the interviewees considered that if the employer participates in the development of the employee's skills and enables him to develop professionally, the person could be more likely to obtain decent work. Second, according to these specialists, decent work is also a state where people are at the center of the work process: "The employee must be treated as the best customer". In this sense, the keywords of Class 4 were the following: *respect, consideration, employee, curriculum, need, sector, and skills*.

## 2.5 Discussion

The findings of this research are mostly consistent with the definition of decent work used within PWT (Duffy et al., 2016). The same holds for resources: specialists mention in their quotes some elements that have already been mentioned by PWT (Duffy et al., 2016) as potentially helping people obtain decent work. Furthermore, we have identified new elements associated with decent work and resources that might ease access to it. We also explored how representations of decent work and resources vary corresponding to the different specialists' profiles.

In relation to the first research question, our analysis show that southern Swiss vocational guidance and career counselling specialists have a representation of decent work that partly reflects that proposed by the ILO (2012) and which is similar, although not equal to that exhibited by PWT (Duffy et al., 2016). Specifically, the first three components defined by PWT were acknowledged, while only one expert cited the person-organization fit in terms of values, and the last, i.e., access to adequate health care (Duffy et al., 2016) was not mentioned. As already explained by Masdonati and colleagues (2019), in Switzerland, the health care system is not linked to employment. All inhabitants benefit from health insurance subsidized by the state for inhabitants with the lowest incomes.

In addition, we have identified one aspect of decent work that has not been included in the definition of decent work given in PWT nor in that provided by the ILO (2012). This aspect is linked to the social role of work and the importance of having positive relations at work. The literature confirms that positive relations at work are an important aspect of employee well-being (Antonucci, 2001; Di Fabio & Kenny, 2019). In this category, we include relationships with superiors and colleagues and that an individual is valued by others and considered an integral part of the team. The specialists interviewed considered this point important, especially for young apprentices.

Some additional elements were mentioned only by one or two participants. However, given the qualitative nature of this study, we considered it important to mention them. A first additional component was the presence of a certain degree of control at work. Control has been defined by Ganster (1989) as an individual's ability to influence his or her working environment, especially those

aspects relevant to personal goals. Second, based on two specialists' quotes, we also recognized an environment where a person does not perform illegitimate tasks, i.e., activities that do not correspond to what can reasonably be expected from an employee, as decent (Semmer et al., 2010). Third, one specialist underlined how the presence of a correspondence between job and personality and/or personal interests should define decent work. In line with this, Edward (1991) associated person-job fit with different outcomes such as job satisfaction, mental and physical well-being, motivation and performance. Two other aspects linked to the social aspect of the work environment emerged: social recognition and the social value of work. Cocks (2001) defines social recognition as the search for approval by others of one's status and merits in relation to the work performed. The social value of work instead addresses how an individual views his own job in relation to its contribution to social values and human development (Mulgan, 2010). It seems that participants think that the judgements of others play an important role in individual perceptions of decent work. This also corroborates Rossier and Ouedraogo (2021) who highlighted that social recognition might be an additional component of decent work. Concerning the relational aspect of work, PWT mentions the social aspect when it explains the outcomes of decent work. In fact, Duffy et al. (2016) state that individuals who obtain decent work will link to work fulfilment and wellbeing through the satisfaction of three groups of needs, including social connection needs. In contrast, in our study, the social aspect is not seen as a need to be satisfied by the work environment but instead as a feature that characterizes decent work.

Finally, only one respondent believes that a fit between values of an employees and values of organization is an index of qualifying a work as decent. This element, according to PWT (Duffy & colleagues, 2016), is part of the definition of decent work. The lack of mention of this aspect could be due in part to the fact that dimensions such as salary or job security acquire greater importance in the definition of decent work than the compatibility of values and because the "company" dimension in the canton of Ticino is less felt because the percentage of large organizations is quite small.

Concerning the second research question, several elements emerged from content analysis related to which type of resources could help people achieve decent work, including one already

presented by PWT and others that were not. First, as stated by PWT (Duffy et al., 2016), specialists have recognized that *economic conditions and constraints* are important elements that influence access to decent work. A new resource that emerged in our analysis was the development of *soft skills* within vocational training, which, according to some participants, could increase the probability of achieving decent work. When we discuss soft skills, we refer to the competences that transverse to any type of job that include common sense, the ability to interact with other people and flexible attitudes (Laker & Powell, 2011). Soft skills development would enable greater adaptability and help people adjust themselves to new working conditions. Even if the concept of adaptability did not emerge explicitly through the words of the interviewees, it was found indirectly. In fact, the specialists interviewed emphasise that soft skills development would increase individual career adaptability and therefore allow people to have a better probability of obtaining decent work. This aspect of adaptability refers to the protean career model (Hall, 1976). According to this model, if we consider all possible variations in everyone's career plans, every worker has to be increasingly flexible and adaptable to meet the demands of professional environments (Ashford & Taylor, 1990). Some interviewees follow this model in affirming the importance of soft skills that would enable people to face the unpredictable adjustments caused by changes in working conditions.

Finally, as discussed for the components, we identified three resources that we consider additional due the small number of participants who mentioned them, but that might be further investigated. The additional resources that might help people meet the constraints of labour market conditions and obtain decent work are motivation, interest, and opportunities of lifelong learning. Motivation is a process that regulates an individual's commitment to a specific activity (Heckhausen & Heckhausen, 2008). The interviewees seemed to agree that decent work should be related to individual motivation at work. If an employee is motivated, he/she most likely could acquire decent work. Another important element highlighted by professionals is the interest in the job, which is the curiosity shown towards a job due to its characteristics that fit with his own preferences and desires (Hansen, 1994). According to the interviewee, people who are interested in their job are more likely

to acquire decent work in the future. Third, two participants think that lifelong learning opportunities allow greater adaptability to the unstable conditions of the labour market and increase the chance of obtaining decent work. The term lifelong learning refers to the individual process of acquiring new roles and competences with the objective of modifying learning to be more appropriate for professional needs (continuous learning) (Field, 2000). However, one should not interpret motivational resources, interest, and opportunities for lifelong learning, as a responsibility to be given to the individual. In fact, in Switzerland a Federal Act on Continuing Education and Training has been approved by the parliament in 2014 and entered in force in 2017. Indeed, to promote access to education, continuing education and training, and decent work, micro (e.g., individuals, family), meso (e.g., communities, organization), and macro (e.g., public policies) factors must be considered together. Overall and to promote social justice, it is important that conditions are created in which these resources can be developed by all individuals, e.g. during compulsory and post-compulsory schooling and education, and that, at the same time, public policies regulate work conditions.

A last important individual resource, also present in PWT but cited by only two specialists, is work volition. According to the interviewees, individuals with a high level of work volition are more likely to engage in meaningful and fulfilling employment; thus, as already supported by previous studies' results (Duffy et al., 2016; Masdonati et al., 2019) the specialists propose that higher work volition will predict a greater likelihood of engaging in decent work.

The results of textual analysis achieved with Alceste have made it possible to quantify the data of the content analysis and obtain an overview of the differences in the specialists' quotes, considering their field of expertise. In fact, it appears that personnel consultants produce discourse more oriented towards the salary aspect of decent work. According to them, the achievement of decent work requires the ability to satisfy minimum vital needs. This reference to salary and the satisfaction of basic needs is in line with the point made in PWT that decent work allows "survival needs" to be met (Duffy et al., 2016). The fact that the salary aspect is the one most cited by personnel consultants is explained by the fact that these specialists are always confronted with situations of precariousness



and unemployment. In this type of condition, it is difficult for many people to obtain a job that ensures their survival and the satisfaction of vital needs. In fact, these specialists repeatedly refer to Maslow's theory of needs (Maslow, 1958) to highlight how important it is to be able to meet one's own vital needs before satisfying other higher-level needs. For this reason, the interviewees say that the lack of a decent salary, for some individuals, would make it impossible to access decent work.

In contrast, apprenticeship commissioners mention the social dimensions of work. In fact, visibility and social recognition are two factors mostly considered when people choose an apprenticeship, and they determine the dignity of a job according to a person. In this regard, Loughlin and Barling (2001), in their study in Canada, found that young workers are more influenced by aspects of social visibility and by relationship opportunities with colleagues. These two authors maintain that the social aspect has greater importance for a young worker than for a more experienced worker. Apprenticeship commissioners support this aspect, and they add the salary element as a second selection factor. According to them, salary earned during an apprenticeship is also considered when people choose the apprenticeship. Unfortunately, they also report that these selection criteria are more associated with early dropout phenomena, as also demonstrated by several studies (e.g., Allidi, 2011). Young people will also consider the contractual criteria of a job. The interviewees refer that jobs with “extraordinary” working hours (evening or weekend work) are rejected more by young people because they are not compatible with their private life.

Career counsellors take an individual perspective in defining decent work. In their opinion, in fact, the dignity of a job may also depend on the individual perception of it; therefore, individual subjectivity defines the components of decent work. These specialists consider soft skills to be important resources for people that can be acquired during vocational training to cope with the instability of the labour market and as a means for adapting themselves to different contexts. As already pointed out, it is important to note that the chances of adaptation of a person experiencing difficult socioeconomic conditions are very different from those of a person in a privileged situation and could therefore impact on the definition of what decent work is and the possibilities of developing

resources permitting to obtaining it. It is therefore necessary for society to provide the conditions for these resources to be developed by all and for the jobs available to come as close as possible to the definition of decent work. In this context, ensure that all have access to a first vocational and professional educational and training is crucial. Regarding the ease of adapting to the context, career counsellors think that it is important to distinguish between young people and adults. Born in a period of economic recession, during the 2000s, young people were constantly exposed to instability in the labor market. For this reason, paradoxically, young people should be better prepared to manage situations of uncertainty because they are more able to reinvent themselves and adapt to external changes in the labor market. Compared to an adult who is obliged to reinvent himself in the middle of his career, a young person would therefore find it easier to adjust his identity to different contexts thanks to his or her more flexible mentality (Savickas & Porfeli, 2012). According to Zammiti et al. (2020), higher levels of career adaptability would correspond to better management of career transitions in adolescence and to higher life satisfaction. It is important to consider this higher career adaptability as a strength of a youth when, during a counselling session, we seek to collaboratively redesign a career path after a career transition or the conclusion of an apprenticeship contract.

Finally, adult educators specializing in vocational education place importance on opportunities for lifelong learning, which is seen as an important resource to help people manage their own careers and access decent working conditions. In an ever-changing world, updating and developing knowledge seems to be the most important and effective tool to help every person overcome moments of transition in their career and to adjust themselves to new professional situations. In this sense, the results of this study are in line with the literature, which states that engagement in training and the updating of knowledge play positive roles in the development of a more elastic mentality and help people make successful career transitions (Flückiger, 2007). It is important to encourage people and give them the opportunity to engage in continuous learning to develop the resources that permits to better adapt themselves to changes in the labor market and to better manage their career paths. To facilitate this, it would be appropriate for companies, in

cooperation with vocational education and training institutions, to facilitate lifelong learning of both their employees and those who could potentially become one. The costs of these courses should be charged as little as possible to the individuals.

One of our contributions is that we have used a double qualitative approach (textual and content analysis) (which is rare), to study the definition of decent work and the resources to access it. However, we would also like to take note of the limitations of our study which should be considered when the findings are interpreted, and these limitations may lead to various directions for future research. First, this is a qualitative study based on a relatively small sample ( $N = 17$ ). It would have been interesting to include more participants, such as individuals from different professional fields. In fact, the comparison between the discourse of professionals and generic workers could potentially expand and complete the statements of the specialists interviewed. Second, Swiss career and work specialists compose our sample, so their answers refer to the Swiss context. In fact, the organization of the education system, of the social protection system, and labor market situation could influence the decent work representation of specialists, as well as the representation of resources that allow access to it. It would be interesting, for example, to compare the importance accorded by Swiss career and work specialists and specialists from developing countries to the dimensions that define decent work and to the resources permitting to obtain it. This comparison could highlight the influence of the external environment on the vision of decent work and the resources to achieve it. Moreover, we did not examine the outcomes of decent work that are considered in PWT (Duffy et al., 2016). It is reasonable to assume that by adding this question, other elements and ideas may have emerged from the discourse of the specialists.

Despite these limitations, the results of this study provide a first overview of how Swiss career specialists perceive the concept of decent work and how they link it to their professional experience. Despite the small sample size, the results of these interviews allowed for a general increase in the knowledge on the definition of decent work and the necessary resources. Second, this study could potentially provide a starting point for further exploration of the concept of decent work and of the

resources to access it. For example, it would be interesting to compare the definition of decent work as given by the interviewees with the perceptions of young people and more experienced workers. This comparison would also make it possible to study the reflectivity of the results from professional quotes with what individuals experience at school and work.

## 2.6 Conclusion

This study has helped extend theory about decent work and highlight differences in decent work vision between career and work specialists. Firstly, we observed that having positive relations at work is a potentially new component of decent work; this finding could have some impacts in practice such as the improvement of organizational activities that encourage social relations at work (e.g. mentoring, team building activities, more informal exchanges between employees). Secondly, it was observed that soft skills development should be a potential new resource for achieving decent work; considering the practice, this finding should encourage individuals in engaging in activities that should develop personal skills and on the other side education system, employers and organizations should recognize more systematically the importance and value of this type of competencies and promote opportunities and (free) training to develop them.

Finally, our study allowed to identify the differences in decent work perspectives among various types of career specialists. In the context of vocational training of career specialists, the study of the different perspectives of career specialists would improve the networking possibilities among them and the support they provide to the career guidance and management of their custom.

### 3 Job and Life Satisfaction of Apprentices: The Effect of Personality, Social relations, and Decent Work<sup>3</sup>

#### 3.1 Abstract

Based on the social cognitive model and on the psychology of working theory, this research aims to study the job and life satisfaction of apprentices, considering proactive personality, person-supervisor and person-group fit, occupational self-efficacy, and decent work as antecedents. The participants were 530 Swiss apprentices enrolled in a three-year VET program with the Federal VET Diploma. The results show that proactivity is directly linked with person-supervisor and person-group fit, occupational self-efficacy, and job and life satisfaction. Decent work is related positively with job satisfaction. Person-supervisor and person-group fit seem to directly influence occupational self-efficacy. Decent work, in turn, seems to mediate the relationship between person-supervisor and person-group fit and job satisfaction. In conclusion, this study suggests that encouraging apprentices' proactivity, person-supervisor and person-group fit at work could be crucial to improving their perceptions of decent work and increasing their job and life satisfaction.

*Keywords:* Apprentices; proactivity; occupational self-efficacy; decent work; job satisfaction

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<sup>3</sup> Zambelli, C., Marcionetti, J., & Rossier, J. (2024). Job and life satisfaction of apprentices: the effect of personality, social relations, and decent work. *Empirical Research in Vocational Education and Training*, 16(1), 3. doi.org/10.1186/s40461-024-00157-1

## 3.2 Introduction

In recent years, while job and life satisfaction have been extensively examined in adult workers (Zammiti et al., 2022; Zhang et al., 2020), only limited research concerned apprentices. The term “apprentice” refers, specifically, to young adolescents who, after finishing compulsory school, have decided to enroll in a dual training program, called Vocational Education Training (VET), characterized by school-to-work alternation. In Switzerland, initial vocational training (secondary level II with apprentice typically aged between 16 and 20) allows the acquisition of certified vocational qualifications; it can be achieved through a Federal VET Certificate, taking 3 or 4 years, or through Federal VET Diploma which has a duration of 2 years. In this type of training, the apprentice is involved in school and in the workplace, where practical learning of the profession takes place. An alternative for acquiring a certified vocational qualification is full-time vocational schools offering both practical/professional and theoretical/general learning. The Federal Vocational Baccalaureate completes the initial vocational training (Federal VET Diploma) and allows access to tertiary-level education. Concerning the well-being of apprentices, Cortini (2016) identified a positive influence of workplace identity on apprentices’ job satisfaction, whereas other studies found that their life satisfaction is predicted by personality traits (Volodina, 2019) and career adaptability (Hirschi, 2009). Job and life satisfaction of apprentices are important to examine for different reasons. Firstly, an apprentice satisfied with his job and life will tend to be more committed to workplace tasks and studies at school (Seidel, 2019; Lüthi et al., 2021). Secondly, apprentices' satisfaction with their work and life will help establish the basis for a successful professional integration and career development, and future career success, which is known to lead to positive outcomes in terms of job and life satisfaction. Lastly, one of the best known and most cited outcomes of an unsatisfied apprentice is the early termination of the apprenticeship contract, which we know from the literature enhancing the risk of remaining without qualifications, unemployment, and experience poverty and healthy problems (Stalder & Schmid, 2012).

Job and life satisfaction are the crucial outcomes of Lent and Brown's social cognitive model of job and life satisfaction (SCM-JS; 2006; 2008). This model includes occupational self-efficacy, participation in goal-directed activities, personality traits, perceived work conditions, prospected outcomes and external support and barriers and explains the way in which these variables associate and serve to associate and sustain life and job satisfaction. According to SCM-JS, goal- and efficacy-relevant contextual support and constraints, goal-directed behaviours, occupational self-efficacy, and personality traits affect job satisfaction, which is expected to influence life satisfaction. Within our study, following this multifactorial model, we included the measurement of occupational self-efficacy, proactivity (a personality trait), person-supervisor fit and person-group fit (external support and barriers). As for the reference SCM-JS model, these variables are assumed to be linked with life satisfaction and job satisfaction. In addition to the antecedents suggested by the SCM-JS, this study also considers the notion of decent work as a measure of apprentices' work conditions. Decent work is the central construct of the Psychology of Working Theory (PWT). Duffy et al. (2016) suggest that decent work predicts well-being at work and in life in general, through the satisfaction of three types of needs (i.e., survival, social connection, and self-determination needs). In our model, decent work is assumed to predict life and job satisfaction.

Inspired by these theories, the aim of the research was to study the relation between apprentices' proactivity, perception of person-supervisor and person-group fit, occupational self-efficacy, decent work perception, and job and life satisfaction by testing a model in accordance with the Lent and Brown (2006, 2008) SCM-JS and PWT (Duffy et al., 2016). Combining these two theories allowed studying a model including a large variety of work-related variables that are supposed to impact job and life satisfaction. Therefore, we constructed a structural equation model (SEM) that included the variables of proactivity, person-supervisor and person-group fit, occupational self-efficacy, decent work perception, and job and life satisfaction. This model was tested on the responses given to a questionnaire by 530 apprentices from the Canton of Ticino.



### *3.2.1 Life and job satisfaction*

Life satisfaction has been assumed by research to be one of the three components of subjective well-being, in addition to the positive affect and negative affect components (Diener, 1984, Arthaud-Day et al., 2005). The life satisfaction component has been conceptualized by Diener (1984, p. 550) as a “[...] cognitive evaluation of one's life”. Later, Veenhoven (1996) stated that “life-satisfaction is the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person likes the life he/she leads”.

Many variables are associated with life satisfaction. For example, De Neve and Oswald (2012) observed, in their longitudinal study, that a high score of life satisfaction predicts a major level of income. In other studies, life satisfaction was associated with other psychological and social outcomes, such as success at work (Boehm & Lyubomirsky, 2008; Luhmann et al., 2013) or quality of relations at work (Oishi et al., 2007). Therefore, a measure of present well-being is life satisfaction, that should be probably considered an important resource for the future well-being of apprentices. Bozgeyikli et al. (2010) studied the demographic variables that are expected to predict life satisfaction in students enrolled in apprenticeship training. They found a difference in life satisfaction according to parents' educational level, income level, and satisfaction with their jobs. In a sample of Swiss apprentices, Hirschi (2009) found that supporting career adaptability and positive development in adolescence predicted an augmentation in the feeling of power and life satisfaction experience over time. Thus, one's life satisfaction is an important indicator of his or her present well-being and lays the foundations for his or her future well-being.

A second important measure of psychological health in the workplace is job satisfaction. Davis and colleagues (1985, p.109) defines job satisfaction as “a combination of positive or negative feelings that workers have towards their work. Meanwhile, when a worker employed in a business organization, brings with it the needs, desires, and experiences which determinates expectations that he has dismissed. Job satisfaction represents the extent to which expectations are and match the real awards.” Job satisfaction is also described as “a worker's sense of achievement and success on the

job. It is generally perceived to be directly linked to productivity as well as to personal well-being.” (Kaliski, 2007, p. 446). Previous literature has proven that job satisfaction is affected by work conditions (Fairbrother & Warn, 2003) as well as individual characteristics such as personality traits (Perera et al., 2018). In the context of apprentices Cortini (2016) showed that organisational learning climate influences personal work identity, which successively affected job satisfaction. Concerning the possible consequences of job satisfaction, Vital and Alves (2010) highlighted that job satisfaction has a positive impact on the organisational engagement of apprentices.

Life satisfaction and job satisfaction have been extensively studied as components of the PWT model and outcomes of decent work. Masdonati et al. (2019), for example, inspired by the PWT model, observed on a sample of workers in Switzerland, that life satisfaction and job satisfaction can be considered as outcomes of perceived decent working conditions. More recently, Kim and Kim (2022) also found a significant link between decent work and job and life satisfaction in their study: perceiving one’s job as decent would lead to greater job and life satisfaction.

In the PWT and the studies inspired by it, job and life satisfaction are seen as distinct outcomes of decent work that covary and other related variables. In Lent and Brown’s model (2006; 2008), on the other hand, job satisfaction and life satisfaction are supposed to influence each other. This bidirectional link was also suggested by earlier studies (Schmitt & Pulakos, 1985), where it was also specified that the path from life satisfaction to job satisfaction may be the strongest (Bialowolski & Weziak-Bialowolska, 2020; Bowling et al., 2010; Unanue et al., 2017). Recently, Marcionetti and Castelli (2022), inspired by the SCM-JS model, tested the link between job and life satisfaction on a large sample of Swiss teachers and found that the link from job to life satisfaction was a slightly stronger than the opposite one. To date, no study has tested the relationship between job and life satisfaction in apprentices. In the present study, job satisfaction is understood as influencing life satisfaction.

### 3.2.2 *Decent work*

Decent work is defined, according to the Psychology of Working Theory (PWT) by Duffy and colleagues (2016), by five components: (1) physical and psychological safe working conditions (e.g., nonexistence of physical, mental, or emotional mistreatment), (2) hours that allow free time and appropriate repose, (3) organizational values complementary to family and social values, (4) adequate compensation, and (5) access to health care. In PWT, there are some antecedents, mediators, moderators, and results of decent work. Marginalization processes and economic difficulties are considered by Duffy et al. (2016) as two antecedents of decent work; career adaptability and work volition, respectively, as two mediators of the relationship between these precursors and decent work. It was assumed that the previously explained relationships are mediated by the following variables: critical consciousness, proactive personality, perceived social support, and economic situation.

Last, in PWT, achievement of survival, social connection, and self-determination needs are proposed as results of attaining decent work. The satisfaction of these three types of needs is expected to positively influence work fulfilment and general well-being. In this study, we considered decent work as a measure of work conditions. The study by Masdonati and colleagues (2019) conducted in Switzerland, as well as the studies realised by Duffy et al. (2017) in Portugal and Vignoli et al. (2020) in France, have shown that decent work predicts greater life and job satisfaction. The last cited studies are conducted on adult samples, and until today, there are no studies that have investigated this topic in apprentices.

### 3.2.3 *Occupational self-efficacy*

Bandura (1997) defined self-efficacy as an important self-perception enhancing human accomplishment and personal well-being in many ways. According to him, individuals with an elevate level of assurance in their abilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. According to Schyns and Von Collani (2002), occupational self-efficacy is the individual's belief in being able to engage in meaningful and relevant behaviours in his or her own work. The higher levels of occupational self-efficacy an individual has, the more likely he or she

will focus on positive opportunities and less on possible losses due to this decision (Krueger & Dickson, 1994).

Subsequently, it is assumed that individuals with a high level of self-efficacy are more likely to engage in challenging and stimulating situations, which may result in greater success in their jobs and lives. Zammitti and colleagues (2021) found that Italian adolescents with a great level of self-efficacy tend to consider work and decent work in a more composite and in-depth way. More related to apprentices' reality, Masdonati and colleagues (2022), in adapting the PWT model to the transition from school to work, consider self-efficacy as one of the psychological resources that lead to a successful transition to the active professional life and consequently augment the possibility of attaining decent work. Hence, in line with the mentioned studies and according to Lent and Brown (2006, 2008), apprentice's level of self-efficacy may have a good influence on decent work consideration.

#### *3.2.4 Person-supervisor and person-group fit*

In their model, Lent and Brown (2006, 2008) include social support as an important element impacting both job satisfaction and its antecedents, such as self-efficacy and perception of work conditions. In this research, we use two variables to operationalise apprentices' social support: person-supervisor fit, and person-group fit. Person-supervisor fit in the literature was treated as a component of person-organisation fit (Astakhova, 2016; Kwon & Kang, 2019; Van Vianen et al., 2011). Colbert (2004) and Krishnan (2002) described person-supervisor fit as an element based on value congruence between employee and supervisor, Schaubroeck and Lam (2002) as a dimension based on personality similarity between employee and supervisor, and Witt (1998) as based on goal congruence between manager and employee. Person-supervisor fit has been illustrated as positively linked to a sense of pleasure at work, approval and satisfaction from the leader, and the status of the relation with the supervisor (Kristof-Brown et al., 2005). Person-group fit is defined most broadly as "the compatibility between individuals and their work groups" (Kristof, 1996). For person-supervisor fit, person-group fit has been positively associated with work engagement, better performance at

work, and job satisfaction (Cai et al., 2018; Seong et al., 2015; Abdalla et al., 2018). In line with the SCM-JS, in the case of apprentices, social support, operationalised with variables of person-supervisor fit and person-group fit, might be influenced by proactive personality, and might directly affect occupational self-efficacy, decent work perception, and job satisfaction.

### *3.2.5 Proactivity*

Today, a rapidly changing labour market and new career paths imply that individuals need to be highly flexible and able to manage multiple job roles. In this sense, people should show a high level of proactivity: they should be agents of change, acting in an anticipatory way, showing self-initiative and being oriented to improve their own working conditions.

Research has repeatedly demonstrated that proactive individuals have fewer problems adjusting themselves to the work situation and the expectations imposed by their work because they are able to shape the situation to fit their desires and needs (Crant, 1995). Proactive orientation also has a positive effect on insecurity and anxiety (Saks & Ashforth, 1996), consequently improving job satisfaction and reducing turnover intention (Wanberg & Kammeyer-Mueller, 2000). Dikkers et al. (2010) established that proactivity was linked to an augmentation in future job implication. Cooper and colleagues (2012) have found that newcomers in organisations, such as apprentices, who are engaged in proactive behaviours, have more opportunities to develop positive relationships at work. Mohammadi (2016) found that proactive behaviours eliminate uncertainty for employees and diminish the negative impact of role unclarity on job performance and gratification. Li et al. (2010) showed that employees with proactive personality had a greater tendency to establish quality exchange relationships with their superiors and that consequently these established exchange relationships were associated with higher job satisfaction and organisational citizenship behaviours. Maurer and Champan (2017) identified a link between proactivity and life satisfaction in recent retirees, and Siebert and colleagues (2020) demonstrated that adopting proactive behaviour renders decision-making more effective, which, in turn, increases decision satisfaction and life satisfaction. Finally, Li et al. (2017) found that occupational self-efficacy mediates the link between proactivity

and job satisfaction. Thus, according to previous studies and the SCM-JS model, in apprentices, we might observe an influence of proactivity on occupational self-efficacy, job satisfaction and life satisfaction.

### *3.2.6 Current study*

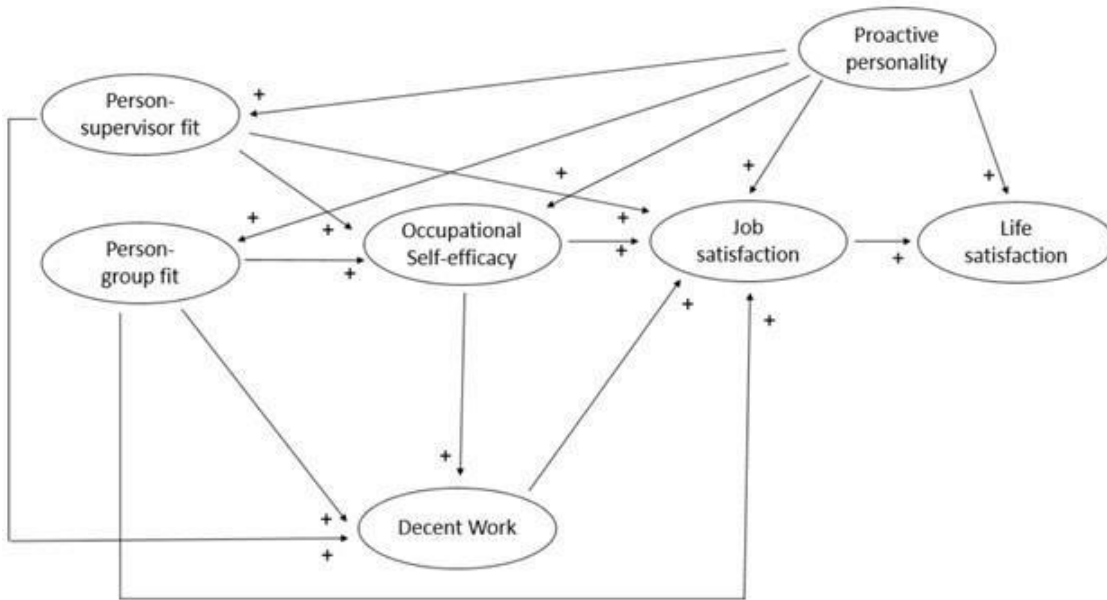
The present study was performed in the Italian-speaking part of Switzerland. Concerning the organization of Swiss educational systems: the competencies concerning post-compulsory education are divided between the cantons and the confederation, the latter having particularly strong influence on how vocational education and training (VET) is organized with a specific Federal Act on Vocational and Professional Education and Training (VPETA). Concerning vocational education, a distinction must be made between full-time training at professional school and training that is provided as a part of a “dual system”, namely a combination of vocational education at school and apprenticeship in a company. In this study, we focused on apprentices attending the dual vocational education system because they have a quite specific challenge to find a balance between work, school, and life. The main characteristic of the dual vocational training system is its orientation towards the workplace. In addition, training is divided into three settings: vocational school, training company, and cross company introductory training courses. In the vocational school, vocational knowledge as well as general culture are taught. At work in the company, on the other hand, apprentices acquire professional knowledge and skills in an active manner by participating in the process of production. Finally, cross company introductory training courses complement the training provided in organization and schools and are set up by the professional branches themselves to give all apprentices access to all the know-how of a professional branch, beyond the specificities of their company.

As earlier noted, very few studies have examined apprentices’ well-being by considering different personal and contextual variables, including the important construct of decent work, as antecedents of job and life satisfaction. The concept of decent work has been considered in work and organizational studies only recently, and even newer is to consider it in the specific case of apprentices. Measuring perceptions of working conditions with a measure of perceptions of decent

work allows even more of a test of the relevance of this construct in assessing well-being in life in general. Indeed, by demonstrating that decent work impacts well-being, practical interventions can be designed to encourage the importance of perceiving a work as decent due to its impact on variables such as job satisfaction and life satisfaction. Hence, we choose to test a model adapted from Lent and Brown's (2006; 2008) social cognitive model of the relationship between sources of job and life satisfaction by including decent work as a measure of professional conditions. Then, according to the Lent and Brown (2006, 2008) SCM-JS, in our model, it was examined which potential source of support (the supervisor or the working team) has the greatest impact on apprentices' occupational self-efficacy, decent work perception, and job satisfaction by including all these links between the variables. There is limited research in the literature on decent work regarding the impact of the quality of social relations in the workplace, and even less research when considering those on apprentices. Therefore, the present study certainly has added value in terms of research on decent work and its antecedents. In addition, occupational self-efficacy was set as a precursor of both decent work and job satisfaction, and proactivity was an antecedent of person-supervisor fit and person-group fit, occupational self-efficacy, and of job and life satisfaction. Differently to Lent and Brown's (2006, 2008) SCM-JS, but in line with PWT and empirical studies based on this theory, proactivity was also set as a predictor of decent work, which itself was identified as a predictor of life satisfaction. Finally, job satisfaction was set as a predictor of life satisfaction (see a summary of the hypothesized links in

Figure 1

A Model to Predict Apprentices Job and Life Satisfaction With reference to Lent and Brown (2006, 2008) Model.



Note. + supposed positive relationship; - supposed negative relationship.



### 3.3 Method

#### 3.3.1 Participants

The present study involved apprentices enrolled in a three-year VET program with the Federal VET Diploma. To start a VET program these apprentices have finished compulsory school (middle school) and found an employer with whom they signed an employment contract. Apprentices were asked to complete an online questionnaire (administered via Qualtrics survey software). The group of chosen apprentices were in the middle-end of their 1st year and completed the questionnaire from March to May in 2021 (i.e., at T1). For each of the two data collections, the students were personally reached out to in their IT classrooms, and both the topic of this study and how to open and complete the questionnaire were explained. The first section of the survey included sociodemographic questions. This section also contained questions about their academic situation, i.e., if they had to repeat some of their VET training years, and questions about the education they received before starting the apprenticeship. Then, some questions concerned the size of their company and their salary (that is defined at the state level for each profession). At the end of this first section, we presented some questions about the linearity of their career and academic path, i.e., it was asked if another apprenticeship in another profession had previously been achieved and if the respondent had plans for the next year (e.g., abandoning the current apprenticeship for another, starting a new job or a new school). The second section of the questionnaire included several psychometric scales that were used to assess the variables and the concepts mentioned in the hypothesis.

The sample was selected from five public vocational schools and chosen to achieve a balanced representation in terms of regions. Informed consent was requested from those who agreed to complete the questionnaire. Data from 530 apprentices were obtained. Their mean age was 19.46 years ( $SD = 3.54$ ), and the modal value was 18; 244 were females (46%), and 286 were males (54%). Apprentices were engaged in different trainings: heating systems installer (2.3%), veterinary practice assistant (3%), hairdresser (7.9%), retailing worker (8.3%), office worker (9.4%), plumber (10%),

pharmacist's assistant (11.5%), employee in logistics (12.1%), medical practice assistant (15.8%), and bricklayer (19.6%).

### *3.3.2 Measures*

#### *Life satisfaction*

To measure life satisfaction, it was used the Satisfaction with Life Scale (Diener et al., 1985), validated and translated in Italian by Di Fabio and Palazzeschi, (2012). The scale consists of 5 items, with a 7-point Likert response scale, with intervals ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is “If I could re-live my life, I would change almost nothing” (p. 12). The value of Cronbach’s alpha was .87 for the original Diener et al., (1985)’scale and .88 for the Italian-version of the scale (Di Fabio & Palazzeschi, 2012).

#### *Job satisfaction*

To measure job satisfaction, we used the Job Satisfaction Scale developed by Judge et al. (1998) through an Italian translation of the questionnaire. The scale included 5 items to be answered on a 7-point Likert scale, with a response range from 1 (Don't agree at all) to 7 (Totally agree) An example item is “I really take pleasure in doing my job” (p.8). The value of Cronbach’s alpha was .88 for the original scale (Judge et al., 1998) and .79 for the translated version (Masdonati et al., 2019).

#### *Decent work*

In this study, the Decent Work Scale (Duffy et al., 2017) was intended to assess decent work. Specifically, we used the Italian version translated and validated by Masdonati et al. (2019). In the scale, there are 15 items to which people answer by a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire includes five 3-item subscales: Safe working conditions (e.g., “At work, I feel safe from any form of emotional or verbal attack”), Access to health care (e.g., “The options offered by the Swiss health care system are acceptable”), Adequate compensation (e.g., “I am not paid enough relative to my qualifications and experience”), Free time and rest (e.g., “I do not have enough time for non-work activities”), and Complementary values (e.g., “The values of my organisation match my circle (friends, relatives, etc.) values”) (p.10). The

Cronbach's alpha value was .86 for both the original scale (Duffy et al., 2017) and for its translated version (Masdonati et al., 2019).

#### *Occupational self-efficacy*

In this study, we employed the Occupational Self-Efficacy Scale (Schyns & von Collani, 2002) to assess occupational self-efficacy. Specifically, we used the Italian version translated and validated by Tani et al. (2009). We chose the short version composed of 6 items assessed using a 6-point Likert-type scale, with possible answers ranging between 1 (not at all true) and 6 (completely true). An example item is, "If an unexpected situation appears in my work, I always know what to do" (p.7). The Cronbach's alpha was .87 for the English scale (Schyns & von Collani, 2002) and .84 for the Italian scale (Tani et al., 2009).

#### *Person-supervisor and person-group fit*

In quality of indicators of social support of apprentices at work, we used a selection of items from the Perceived Person-Environment Fit Scale (Chuang et al., 2016). A translation to Italian of the selected items was performed. The original scale consisted in 27 items to which the participant answers on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree): 19 items are assumed to measure the Person-Job fit while the 8 remaining items are supposed to measure the Person- Supervisor fit and the Person-Group fit. In our model, we used only six items: one half to assess the person-supervisor fit and the three others to evaluate person-group fit. In fact, it was decided to use only the six items measuring fit with one's supervisor and work group in the questionnaire because the interest was to measure only the social aspect of P-E fit. Therefore, it was decided not to include the other scale items that measure other aspects of P-E fit.

An example of an item that measures person-supervisor fit is "The things that are important to me are the same as those of my supervisor" (p.18). Conversely, an example item for the measure person-group fit is "My personality and that of my match group members". The Cronbach's alpha was .91 for the English original Person-Environment fit scale (Person-Supervisor and Person-group fit items') (Chuang et al., 2016) and .90 for the Italian version of this subscales.

## *Proactivity*

The Proactive Personality Scale (PPS) by Bateman and Crant (1993) is a scale that measures proactive personality with 17 items. Responses are given on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). For this study, we employed the Italian version translated and validated by Di Fabio (2016). Two item examples are “If I believe in an idea, nothing can stop me from realising it” and “I could recognize a good opportunity long before other people”. The Cronbach’s alpha was .82 for the Bateman and Crant, (1993)’s scale and .81 for the translated version (Di Fabio, 2016).

### *3.3.3 Data analysis*

In the questionnaire, it was decided to not apply Qualtrics’s option of forcing response but for each question that the person missed, the number of missing answers was indicated, while leaving the possibility of proceeding with the questionnaire by leaving the answer unanswered.

All the information collected with questionnaires was directly downloaded from Qualtrics. Database cleaning was performed, excluding questionnaires with implausible answers, and questionnaires of students who took an excessively short time to complete the questionnaire. After that, different procedures to implement data cleaning was applied. Firstly, the data relating to responses for a specific scale when the apprentice did not provide a response for more than two items (i.e., when the missing responses for a scale were more than two) were eliminated. Secondly, the responses for each scale that diverged excessively from the distribution of the mean of the respondents were discarded, applying the Mahalanobis distance calculation and eliminating the resulting outliers. Finally, when an apprentice gave answers to a scale that were only in the neutral range (e.g., "neither agree nor disagree"), the data associated with his/her answers were eliminated.

Cronbach's alpha index was used to assess the internal consistency of the scales. After, means, standard deviations, and correlations between the variables were calculated. To run the structural equation models (SEM), a covariance matrix was generated. We first run a measurement model and then an SEM. For both kinds of models, we used items as observed variables except for decent work,

for which we considered each subscale as observed variables. The Amos software, which was used to implement the SEM models, uses the maximum-likelihood method. To measure the appropriateness of the models, we used the comparative fit index (CFI) and the Tucker–Lewis’s index (TLI), which confirm an appropriate fit when their values equal or exceeds .90 (Medsker et al., 1994). We also used the root mean square error of approximation (RMSEA) value as an index of model fit, which is considered acceptable when it is equal to or below .08 (Byrne, 2010). In addition to the already mentioned CFI, TLI and RMSEA, we refer to the  $\chi^2$  per degrees of freedom ( $\chi^2/df$ ), which indicates a good fit when the value is equal to or below 3 (Kline, 2005). Finally, on the last SEM, a multiple-group analysis was computed to assess if the relations between variables were equivalent for women and men. To perform this, measurement invariance was analysed by examination of fit differences across the configural, weak invariance, and structural models. As suggested by Chen (2007), the presumption of invariance across models was judged to be viable if differences between CFI and RMSEA are smaller than respectively .01 and .015.

### 3.4 Results

Descriptive statistics and correlations are exposed in Table 1. Cronbach's alpha values were between .79 (for job satisfaction) and .93 (for proactive personality), indicating adequate reliability of the measures used. The totality of correlations between variables were significant and of positive sign. The highest correlations were between person-group fit and person-supervisor fit ( $r = .65$ ) and between job satisfaction and life satisfaction ( $r = .52$ ). Life satisfaction correlated moderately with decent work, person-group fit, proactive personality, and person-supervisor fit and weakly with occupational self-efficacy. Similar values were obtained for the correlations of job satisfaction with these same variables, aside from the relationship with person-group fit, which was higher with job satisfaction. Proactive personality correlated moderately with occupational self-efficacy and person-group fit and weakly with decent work; the relation between proactive personality and person-supervisor fit was the weakest ( $r = .15$ ). Decent work had a higher correlation with person-group fit. Aside from job and life satisfaction, it also had a moderate correlation with person-supervisor fit and a weaker correlation with occupational self-efficacy. This last variable was also moderately correlated with person-supervisor fit and (strongly) with person-group fit. A series of t tests permit us to analyse the influence of gender on each variable. Gender had a significant influence on person-supervisor fit,  $t(456) = -2.23$ ,  $p = .013$ , person-group fit,  $t(438) = -2.55$ ,  $p = .005$ , and decent work,  $t(522) = -2.16$ ,  $p = .016$ . For the three variables, men scored higher than women.

Before computing the SEMs, the measurement model was assessed, which included all variables as first-order latent factors except for decent work, which was set as a second-order latent factor. It was associated with acceptable fit indices,  $\chi^2(485) = 856.879$ ,  $p < .001$ , TLI = .929, CFI = .935, and RMSEA = .051. Then, a first SEM including all relations illustrated in Figure 1 was performed. The model, which results are represented in Table 2, had an adequate fit,  $\chi^2(546) = 966.942$ ,  $p < .001$ , TLI = .925, CFI = .931, and RMSEA = .051.

Table 1

*Cronbach's alpha, mean, standard deviation, and correlation matrix*

	$\alpha$	$M$	$SD$	1	2	3	4	5	6
1 Life satisfaction	.89	3.70	0.91						
2 Job satisfaction	.79	4.95	1.60	.52					
3 Proactive personality	.93	4.94	0.76	.34	.36				
4 Person-supervisor fit	.90	4.12	0.72	.32	.35	.15			
5 Person-group fit	.91	4.96	1.16	.36	.43	.31	.65		
6 Decent work	.81	4.77	2.22	.44	.45	.25	.46	.57	
7 Occupational self-efficacy	.91	4.16	0.63	.28	.29	.39	.31	.38	.23

*Note.*  $\alpha$  = Cronbach's alpha;  $M$  = mean;  $SD$  = standard deviation. All correlations are significant at  $p < .001$

Table 2

*Results of SEM analysis related to model 1*

Link		<i>B</i>	<i>SE</i>	$\beta$	
Proactive personality	→	Person-supervisor fit	0.34	0.10	.19**
Proactive personality	→	Person-group fit	0.43	0.07	.35***
Proactive personality	→	Occupational self-efficacy	0.27	0.52	.35***
Proactive personality	→	Job satisfaction	0.19	0.05	.31***
Proactive personality	→	Life satisfaction	0.13	0.76	.10
Person-supervisor fit	→	Occupational self-efficacy	0.56	0.24	.12*
Person-supervisor fit	→	Decent work	0.11	0.02	.25***
Person-supervisor fit	→	Job satisfaction	0.00	0.02	.02
Person-group fit	→	Occupational self-efficacy	0.11	0.03	.18**
Person-group fit	→	Decent work	0.41	0.04	.64***
Person-group fit	→	Job satisfaction	-0.58	0.06	-.11
Occupational self-efficacy	→	Decent work	0.13	0.07	.13
Occupational self-efficacy	→	Job satisfaction	-0.04	0.05	-.05
Decent work	→	Job satisfaction	0.45	0.14	.56**
Job satisfaction	→	Life satisfaction	1.21	0.20	.58***

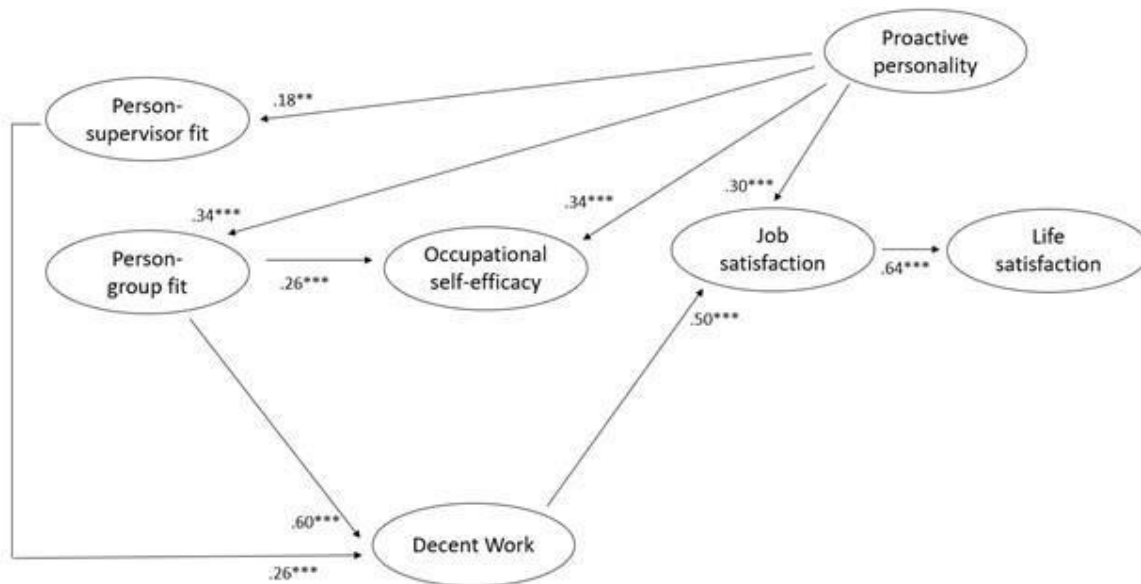
*Note.* *B* = unstandardized beta; *SE* = standard error;  $\beta$  = standardized beta. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

In this model, person-group fit directly impacts occupational self-efficacy and decent work, which directly influences job satisfaction. Proactivity also directly affects person-group fit and person-supervisor fit, occupational self-efficacy, and job satisfaction. Finally, an indirect impact of person-group fit on job satisfaction via the mediation role of decent work emerged. The model explained 44% and 42% of the variance of job satisfaction and life satisfaction, respectively. Nevertheless, the links between person-group fit, person-supervisor fit and occupational self-efficacy with job satisfaction were nonsignificant. Even the relation between occupational self-efficacy and decent work and the relation between person-supervisor fit and occupational self-efficacy were nonsignificant. Therefore, a second SEM (Model 2) was tested where all the nonsignificant paths were eliminated. Model 2 fit was similar to the fit of the first model,  $\chi^2(552) = 978.521$ ,  $p < .000$ , TLI = .925, CFI = .930, and RMSEA = .051. This second model explained 43% of job satisfaction and 42% of life satisfaction variance. Hence, we considered Model 2 as our final model (see Figure 2).



Figure 2

*Structural equation model predicting apprentices job and life satisfaction with reference to Lent and Brown (2006, 2008) model, Model 2*



Note. \*\*  $p < .01$  \*\*\*  $p < .001$

In Model 2, gender invariance was tested to verify if the model was acceptable for both women and men. Initially, weak factorial invariance was analyzed to test for divergences between the weak and configural models. The fit of the configural model was not acceptable,  $\chi^2(1104) = 2637.903$ ,  $p < .001$ , TLI = .857, CFI = .868, and RMSEA = .052; hence, correlations between errors were added following modification indices, and Item 3 of the Job Satisfaction Scale was eliminated because factor loading was  $> .40$ . The fit of this second model was acceptable,  $\chi^2(1024) = 2156.884$ ,  $p < .001$ , TLI = .892, CFI = .901, and RMSEA = .046, and almost the same as the one of the weak invariance models,  $\chi^2(1053) = 2198.616$ ,  $p < .001$ , TLI = .893, CFI = .900, and RMSEA = .046. A weak factor invariance ( $\Delta\text{CFI} = .001$  and  $\Delta\text{RMSEA} < .001$ ) was thus confirmed by this analysis. The model constraining pathways to be equal,  $\chi^2(1060) = 2207.039$ ,  $p < .001$ , TLI = .894, CFI = .900, and RMSEA = .046, was not significantly worse than the weak invariance model,  $\Delta\text{CFI} = .000$ ,  $\Delta\text{RMSEA} < .001$ , which showed that the model is applicable for both women and men.

### 3.5 Discussion

In the present study, a model based on SCM-JS (Lent & Brown) model and the PWT was tested, which defines the relation between apprentices' proactivity, person-supervisor and person-group fit, occupational self-efficacy, decent work, and job and life satisfaction. We also tested the model for gender invariance. The goal of the present contribute was to offer further information about the relations theorized in Lent and Brown (2006, 2008) SCM-JS (see Figure 1) and on additional relationships supported by empirical studies. The results are exposed by examining the hypothesized relationships.

#### *3.5.1 The relationships between decent work, job satisfaction, and life satisfaction*

First, in conformity with Lent and Brown's (2006; 2008) model and with our hypothesis (Figure 1), apprentices' satisfaction with their own work seems to increase their satisfaction with their lives in general (Rode, 2004). Second, our hypothesis proposes that decent work is directly linked to job satisfaction (Duffy et al., 2017; Blustein et al., 2016) and indirectly associated with life satisfaction (Masdonati et al., 2019; Kim et al., 2021; Chen et al., 2020). To the best of our knowledge, the connection between decent work, job satisfaction and life satisfaction has infrequently been evaluated in apprentices. The existing research on decent work and these two variables have thus far mostly been conducted with adult workers (Di Fabio & Kenny, 2016; Masdonati et al., 2019): in these studies, it was highlighted that the perception of decent work was indeed linked to a higher well-being condition, in terms of life satisfaction and job satisfaction. The findings suggest the presence of a direct impact of decent work on the job satisfaction of apprentices and that job satisfaction act as a mediator of the relation between decent work and life satisfaction. Therefore, based on our results, it is possible to assume that the decent work variable should be relevant to explain a reduced job satisfaction in apprentices and could be included in models clarifying the process intrinsic to apprentices' well-being. Indeed, the well-being of apprentices has been studied in previous literature (Jenni et al., 2017; Deady et al., 2020; Ross et al., 2022) but has not been directly associated with apprentices' perceptions of decent work until now. The significant result of this study attesting the

link between decent work and job (and indirectly life) satisfaction could expand current knowledge about the variables influencing the well-being of apprentices in training.

Lastly, the results showed the importance of the idea of decent work also advanced by the United Nations, which included decent work in the goals of Agenda 2030. Specifically, the importance of decent work in achieving sustainable development is highlighted by Goal 8 which aims to “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (sustainable development goals human rights). In this case, the results obtained are in line with what the United Nations reported and make it even more evident, in their connection with the well-being variables, the importance of decent work for the lives of adults and young people.

### *3.5.2 The function of occupational self-efficacy*

In contrast to the Lent and Brown (2006; 2008) model, in our study, there was neither a direct association between occupational self-efficacy and job satisfaction nor an indirect association between these two variables through decent work. Previous studies had shown a different result regarding the role of occupational self-efficacy. Yeves and colleagues (2019) for example highlighted in their study that there was a direct (and indirect) relationship between occupational self-efficacy and job satisfaction. Maggiori et al. (2016) also observed a significant link in their model between feelings of job self-efficacy and job satisfaction. Concerning the link between occupational self-efficacy and decent work, there are no results that have showed it. From a qualitative perspective, the study conducted by Zammitti and colleagues (2021), in relation to this link, only showed how a deeper and more complex view of decent work was associated with higher levels of self-efficacy.

The results of our study, conducted on a sample of Swiss apprentices, however, showed, contrary to previous studies, that occupational self-efficacy does not influence their decent work perception or their professional satisfaction (Bong et al., 2009; Federici & Skaalvik, 2012). Hence, Swiss apprentices’ occupational self-efficacy is less likely to change their perception of decent work and their job satisfaction.

### *3.5.3 The function of person-supervisor and person-group fit*

In our model, it resulted that apprentices' occupational self-efficacy was directly affected by the perception of a good person-group fit, and decent work was directly affected by the perception of a good person-group and person-supervisor fit. These findings correspond to those of SCM-JS. These results are also congruent with previous literature, which showed that positive relations at work positively affect employees' self-efficacy (Coffman & Dilligan, 2002; Karademas, 2006; Lundberg et al., 2008). Additionally, in line with previous studies' results (i.e., Wang & Lei, 2021; Masdonati et al., 2022), our model showed that person-group fit at work influences the perception of having decent work. Based on our results, it also seems that only person-group fit has a significant influence on occupational self-efficacy, while person-supervisor fit, and person-group fit influence decent work perception. These associations should be explained by the specific context in which the study was conducted.

First, an apprentice is most likely to spend more time with colleagues than with his or her supervisor in small or medium-sized companies (which are more numerous in the Ticino context). It is, therefore, from the other team members that he or she learns (not only from the supervisor), and they have a more important effect on his or her perception of occupational self-efficacy. Afzal and colleagues (2019), in this regard, have shown that the perception of support from colleagues and in particular the supervisor influences the employees' perceived occupational self-efficacy and their intention to leave the company (turnover intention). Second, it is precisely the relationship with the team and the work climate created by it that directly impacts some dimensions of decent work, particularly the physical and interpersonally safe working conditions and the perception of organizational values that are in line with family and social values. In contrast, for apprentices, it is neither up to the supervisor nor the team to decide the number of working hours, salary, or access to health care, which are governed by specific rules to be applied to the apprentices' contracts.

### *3.5.4 The function of proactivity*

Consistent with both the Lent and Brown (2006; 2008) model and the results of previous studies (Cooper et al., 2012; Kim et al., 2005; Wang & Lei, 2021), proactive personality affected the variables that we used to assess perceived support from others, i.e., person-supervisor and person-group fit. It seems that a proactive personality has a stronger impact on person-group fit than on person-supervisor-fit perception. The stronger influence of a proactive personality on the perceived fit with colleagues might be clarified by the simple reason that, in the context where the study was conducted, the apprentice spends more time with the team. Moreover, the relationship with the supervisor might be perceived as less important compared to the relationship with colleagues who are probably closer to the apprentice in terms of age, habits, and behaviours. Thus, on the one hand, the apprentice might invest less actively the relationship with the superior compared to the relationship with the colleagues, and on the other hand, the proactive work-related behaviours enacted in working with the team would facilitate the establishment of a good apprentice-team relationship (Cooper et al., 2012). This link between proactivity and person-group fit might help explain the impact of proactivity in reducing insecurity and anxiety found in other studies (Mohammadi, 2016; Saks & Ashforth, 1996). In addition, as also stated by other authors (Douglas & Autin, 2020; Marcionetti & Castelli, 2022; Sheng & Zhou, 2021), our study also indicates that an indirect relation between proactivity (personality) and decent work (work conditions) via person-supervisor fit and person-group fit can be included in SCM-JS.

Our results, in accordance with previous studies (e.g., Kim & Park, 2017; Lin et al., 2014), also showed a significant impact of proactive personality on perceived occupational self-efficacy. This result thus seems to confirm the importance of a proactive personality for engagement in learning activities that enhance the specific abilities requested by the apprentice, which was also found in working adults (Dijkers et al., 2010).

Finally, personality, in SCM-JS, is expected to influence job and life satisfaction; in our model, however, just the relation through proactivity (personality) and job satisfaction was demonstrated. The established link of proactive personality and job satisfaction is congruent with

what previous literature indicated: that proactive behaviour leads to greater satisfaction at work (Wanberg & Kammeyer-Muller, 2000; Wang & Lei, 2021). However, unlike previous studies (e.g., Greguras & Diefendorff, 2010), the link with life satisfaction was not confirmed. In the case of apprentices, this could be due to a greater influence of the perception of having a fulfilling life and of other variables as well (e.g., friendship relationships outside work, love relationships, etc.). However, we can assume that proactivity is important for apprentices' professional well-being. Indeed, our findings suggest that even among apprentices, as already demonstrated in more experienced workers, proactive workers have greater occupational self-efficacy than less proactive workers (Kim & Park, 2017; Lin et al., 2014), better social relations at work (Gong et al., 2012; Thomas et al., 2010), are more likely to view their work as decent (Douglass et al., 2020; Wei et al., 2022), and have greater job satisfaction (Li et al., 2017; Wanberg & Kammey-Mueller, 2000).

### 3.6 Limits and suggestions for future investigations

The contribution of this study to the understanding of well-being of apprentices is to take into consideration decent work and the SCM-JS model. Secondly, it permits us to explain how apprentices' proactivity, conception of person-supervisor and person-group fit, occupational self-efficacy, decent work, and job and life satisfaction relate. Nevertheless, the way in which this study is structured does not allow us to have definitive answers concerning the causality of the links observed. However, these links seem in accordance with our theoretical framework that combines SCM-JS (Lent & Brown) model and the PWT. Moreover, the sample consisted of apprentices from a particular region of Switzerland, the Canton of Ticino, which, apart from the language spoken, Italian, which is different from that of the other regions, has a school culture that is more inclined towards high school and academic studies and less towards vocational training compared to most of the other Swiss cantons (Marcionetti, 2023). For this reason, the contextual specificity of Canton Ticino should be considered before generalizing the results to other context and cultures. For this reason, our model should be verified with adolescents in education in different economic and cultural contexts. For example, the apprentice's relationship with the supervisor may be more important in cantons where there are more large companies than small ones. Therefore, it could be considered in the future to use a sample of apprentices coming from different Swiss cantons. In addition to Ticino, which is smaller and has fewer urban centers, apprentices could also be added from canton Zurich or canton Geneva where the economic reality is made up of large urban agglomerations and large companies. Thinking instead of the international context, it can be assumed that some cultural differences related to work culture may cause differences in the reported effects found. Indeed, if one thinks of U.S. or, conversely, Asian work culture, there will be differences in the results found especially with respect to the conception of decent work and well-being. However, the coherence of the relations that resulted in our study with those theorized by Lent and Brown (2006; 2008) and with those demonstrated by previous research makes it possible to assume good reliability and validity for the findings of our research.

### *3.6.1 Practical implications*

Concerning practical implications, the findings of our study show that promoting apprentices' proactivity, person-supervisor, and person-group fit might be decisive in increasing, aside from occupational self-efficacy, their job and life satisfaction. Despite the development of a personality trait like proactivity is not simple, studies have demonstrated that it is possible; for example, Robertson and colleagues (2021) have developed some practices (PMB-Proactive Behaviour Management) to increase proactive behaviors in organizations. Indeed, as shown by Cooper et al. (2012) in their study concerning organizational socialization and suggested by our study, it is important for a newcomer, as an apprentice, to be engaged in proactive behaviors that positively affect the chance of developing positive relations at work. In addition, also Zammitti and colleagues (2020) have developed a training aimed at providing adolescents with resources of professional curiosity and self-efficacy, which would also increase their representation of the concepts of work and decent work. Effectively, they have found that career counselling activities developed to stimulate career adaptability can help increase adolescent personal resources and increase their chances of finding a qualitatively good (decent) job.

### *3.6.2 Conclusions*

In our model, the perception of person-supervisor and person-group fit has been linked to apprentices' job satisfaction via the mediation of decent work. Hence, creating a good match between apprentices and their supervisors and teams might increase their consideration of having decent work, which, conversely, might increase their job and life satisfaction. In this sense, socialization and team building activities organized in enterprises might be useful. A work environment where the apprentice has the possibility of having constructive discussions with colleagues and supervisors about daily work matters and problems and where social relationships are positive and personally enriching has a positive effect on apprentice's feelings of having decent work. The increase in decent work perception may be important for enhancing job and life satisfaction and thus, indirectly decreasing the risk of early rescission of apprenticeship contracts.



## 4 Influence of career adaptability, control on stress and decent work in a sample of apprentices<sup>4</sup>

### 4.1 Abstract

This study aimed to analyze how career adaptability and job control can influence apprentices' perceptions of decent work and occupational stress. The participants included 530 Swiss apprentices enrolled in a three-year vocational education training (VET) program. Structural equation modeling showed a positive link between career adaptability and job control and a strong negative association between decent work perception and occupational stress. Career adaptability had a specific positive relationship with decent work perception, whereas job control had a significant relationship with both decent work and occupational stress. Finally, decent work could be considered a possible mediator between career adaptability and occupational stress and between job control and occupational stress. The study suggests that both personal resources and work conditions are two possible triggers that can help apprentices perceive their work environment as positive and help them manage their occupational stress.

*Keywords:* career adaptability; job control; decent work, occupational stress; apprentices; structural equation model.

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<sup>4</sup> Zambelli, C., Marcionetti, J., & Rossier, J. (accepted and under review). Influence of career adaptability, control on stress and decent work in a sample of apprentices. *Journal of Career Development*.

## 4.2 Introduction

The transition to work is a significant challenge for adolescents and represents an impressive “developmental task” (Havighurst, 1972; Super, 1992). The literature addressing the school-to-work transition (SWT) often tends to either focus on university or college students (e.g., Dorsett & Lucchino, 2015; Nilsson, 2019) or examine students involved in the vocational education training (VET) system. Country as Switzerland or Germany promotes the VET system because this type of education is known to facilitate the SWT (Findeisen et al., 2022). Students in a VET system alternate day of work and days of school and thus have to manage their work, their education and leisure time simultaneously. Apprentices’ well-being (Jenni et al., 2017) and their perception of occupational stress (Schenkel et al., 2022) have been the interest of many studies in recent years. For instance, Kälin et al. (2000) found that the well-being of apprentices increases with tenure and is influenced by factors such as job control or job satisfaction. In their *Psychology of Working Theory* (PWT), Duffy and colleagues (2016) suggested that the impacts of contextual and marginalization factors on decent work are mediated by psychosocial resources. In turn, decent work predicts well-being at work. Among these resources, career adaptability is supposed to be positively linked with decent work. On the other hand, the *Job-Demand-Control-Support Model* (Karasek & Theorell, 1990) suggests that among other relations, job control is negatively linked to occupational stress. Inspired by these theories, the aim of this research was to examine how career adaptability and job control could relate to both decent work and occupational stress and whether it would be more parsimonious to consider decent work as a possible mediator in an apprenticeship population of individuals who must simultaneously manage their life, work, and education. In addition, we analyzed whether the relationships between hypothesized variables differed according to gender, apprenticeship year, socioeconomic status, or organization size.

### 4.2.1 Decent work as an antecedent of occupational stress

In our contemporary social, economic, and political context, which undergoes constant mutation, careers tend to become more uncertain and, in some cases, precarious; thus, benefitting

from decent work conditions may become an increasingly critical challenge. The Declaration of Human Rights, promulgated by the United Nations in 1948, highlighted the central significance of having access to decent work. Article 23, al. 1 and 3 states as follows: "Everyone has the right to work [...] to just and favorable conditions of work and to protection against unemployment [...] every worker has the right to just and favorable remuneration [...] to an existence worthy of human dignity" (p.75). The *Psychology of Working Theory* (PWT) identifies the following five characteristics that allow us to define work as decent: (1) physically and psychologically safe working conditions (e.g., nonexistence of physical, mental, or emotional mistreatment), (2) hours that allow free time and appropriate repose, (3) organizational values complementary to family and social values, (4) adequate compensation, and (5) access to health care. These characteristics, when properly present, help to fulfil one's survival, social connection, and self-determination needs, which positively affect one's work fulfilment and well-being. Indirectly, considering the absence of occupational stress as an indicator of well-being and based on the PWT's statement, we can state that decent work should predict lower levels of stress at work, as has already been observed in other populations (Blustein et al., 2016).

Occupational stress is a critical element to consider when studying well-being at work (McGowan et al., 2006; Quick & Henderson, 2016; Rothmann, 2008). In the past, numerous studies have shown an important relation between chronic stress at work and worker burnout (e.g., Milfont et al., 2008), which is determined as a condition of exhaustion (Kristensen et al., 2005) deriving from exposure to a very exigent professional environment (Schaufeli & Greenglass, 2001). According to McGrath (1976), who was one of the first to define the construct of burnout, stress results from an imbalance between the requests of a specific condition and an individual's capacity to deal with it. Moreover, he added a definition of stress that was different from the preceding definition: the feeling of stress also results from an absence of congruence between an individual's needs and the expectations, possibilities, opportunities, and difficulties of a particular situation.

Concerning the occupational stress of apprentices, Kálin and colleagues (2000) highlighted some interesting aspects. First, when apprentices enter a workplace, their level of stress varies according to the characteristics of the job. The level of pressure felt depends more on the occupation than on the employer. Second, it was found that task-related stressors remain stable as social recognition and control over work increase. Some authors have approached stress experienced during an apprenticeship from a management perspective by focusing mainly on organizing interventions to improve this aspect in the workplace. For example, Schenkel and colleagues (2022) developed an intervention that involved sending daily text messages to reduce stress levels through a just-in-time planning intervention. Another recent study (Hassnain & Omar, 2020) revealed that the COVID-19 lockdowns had a negative impact on apprentices' mental and physical well-being, as well as on their perceived stress at work. Regarding the link with decent work, it has been found that, as mentioned above, there are relationships with indicators of well-being such as job satisfaction and life satisfaction (e.g., Masdonati et al., 2019; Green, 2021). On the other hand, the prediction by decent work of lower occupational stress has been found by various studies (e.g., Duffy et al., 2019; Toscanelli et al., 2019) to be related to a higher level of health (mental and physical).

#### *4.2.2 Career adaptability as an antecedent of decent work and occupational stress*

Career adaptability is a combination of psychosocial abilities that allow individuals to adapt to their complex and constantly changing social and economic environment. These abilities consist of concern, control, curiosity, and confidence (Savickas, 2013). Concern regards the ability to orient oneself in the future, control refers to self-discipline in managing one's career choices, curiosity is defined as the behavior of seeking information about career possibilities and, finally, confidence is related to the feeling of self-efficacy in one's career construction. Hence, the construct of career adaptability implies engaging in scheduled dispositions, seeking information about oneself and the environment, and engaging in informed career decision-making (Gati et al., 2019). Elevated scores of career adaptability seem to be related to the realism and stability of one's aspirations (Hirschi, 2010), smoother career transitions (Germeijs & Verschueren, 2007), lower levels of unemployment

(Fouad, 2007) and career indecision, and a higher level of life satisfaction (Parola & Marcionetti, 2021). When studying career-related outcomes of young workers as apprentices who are engaged in their first work experiences, career adaptability is a relevant concept to examine. In this population, career adaptability could also be positively associated with higher levels of well-being both in life and at work (Akkermans et al., 2018; Maggiori et al., 2013) and lower levels of occupational stress (Malik et al., 2015; Rothmann, 2008).

The relationship between career adaptability and decent work has been suggested by the PWT and confirmed by several empirical studies. The PWT (Duffy et al., 2016) states that contextual elements, such as economic constraints and the marginalization process, establish the attainment of decent work. However, the effect of decent work on these antecedents is mediated by some psychological resources, such as career adaptability. Concerning other studies, for example, Vilhjálmsdóttir (2021) observed a significant and positive correlation between career adaptability and decent work. Last, career adaptability is also negatively related to work stress, as has been observed in various studies. For example, in a sample of employed and unemployed Swiss adults, Maggiori et al. (2013) showed that a low level of job security is linked to higher scores on career adaptability and that adaptability resources are positively associated with well-being both in life and at work, no matter the working conditions.

#### *4.2.3 Job control as an antecedent of decent work and occupational stress*

In the same way as that described for career adaptability above and as suggested by the *Job-Demand-Control-Support Model* (Karasek, 1979; Karasek & Theorell, 1990), job control is an important aspect to consider when describing work conditions. Job control can be defined as the level of influence of one's working style on tasks, times, or means (Humphrey et al., 2007). Job control also allows one to modify the environment to be in line with one's needs (Hackman & Oldham, 1980; Karasek & Theorell, 1990). The outcomes related to job control are several and varied, such as the well-being and performance of employees at work, dispositions toward work (Bond & Flaxman, 2006), and influences on job satisfaction (Scanlan et al., 2019; Shimazu et al., 2004).

Only a few studies have examined the link between job control and decent work. In compliance with the Commission on Social Determinants of Health (2007), employees' ability to control their work hours and work environment is a key aspect in promoting their health. Martens et al. (1999) noted that job control and decent work are both antecedents of physical and mental health at work. In addition, Fischer and colleagues (2021) considered the relationship between job control and decent work via the concept of work ability, which is a concept based on the perceived balance between individual resources and job demands and is also a valid indicator of career sustainability. According to these authors, job control can be considered an organizational determinant of work ability, which could lead to decent work. Moreover, occupational stress and psychological well-being are two variables that are influenced by job control. For example, Daniels and Guppy (1994) stated that control might have a beneficial effect on well-being since it allows an individual to change the nature of the environment to cope with stressors. For decent work, we assume in our model that control at work reduces the level of perceived occupational stress.

The model of the current study states that career adaptability and job control are two antecedents of decent work and occupational stress. However, little has been said about the relationship between these two antecedents. In fact, few studies have examined the relationship between job control and career adaptability. For instance, Maggiori et al. (2013) studied the influence of career adaptability on work conditions and on employee well-being; they found that small scores on job control or decision latitude are associated with low scores on career adaptability. Thus, in our model, we assume that job control is positively correlated with career adaptability, which is the other antecedent of decent work and occupational stress.

#### *4.2.4 Aims and context of the present study*

It is important to also consider the sociocultural context of this study. Indeed, apprenticeships are the predominant form of upper secondary education in Switzerland, as is also the case in Germany. In an educational system, students must find a balance between three spheres of life: their professional life, their life as a student, and their personal life. This can be seen as quite challenging for people

who are adolescents or young adults. The VET system is especially common in the German part of Switzerland and slightly less popular in the French and Italian parts of Switzerland. In Ticino, between 2003/04 and 2020/21, between 40% and 45.5% of young people enrolled in an upper secondary school and between 42% and 51% attended a full-time or part-time vocational school after completing compulsory school (Marcionetti, 2023). The fact that the Canton of Ticino therefore has an education system that is not as focused on vocational training as the German part of Switzerland (perhaps due to its geographical and cultural proximity with Italy) could play a role in the results of this study. A second contextual influence may come from the reality of the labor market in the Canton of Ticino, which is characterized by many small and medium-sized enterprises where salaries are lower than in the rest of Switzerland (Bigotta & Giancone, 2023). As the environment in the canton of Ticino is more challenging, with fewer vacant positions and lower salaries, it could be assumed that people have to use their resources more, as they perceive that their working conditions are less favorable. Indeed, Aerne and Bonoli (2023) showed in their study that VET training (apprenticeships) could be used as a way in which to integrate disadvantaged social groups into a collective skill formation system. Moreover, the numbers concerning the training-workplace transition are indeed in favor of the VET system, as shown by Korber and Oesch (2019). Again, these authors, however, highlighted the fact that, in the long term, the VET system is associated with less favorable conditions such as substantially lower earnings once workers enter their thirties and that this disadvantage is greater among women than among men. Therefore, it is also important to consider the educational and socioeconomic background of the apprentices questioned to understand the influence of this on the findings.

Concerning the aims of our study and considering the absence of studies that have considered both career adaptability and job control (e.g., Cumbers et al., 2009; Edralin, 2014; Vilhjálmsson, 2021) as antecedents of occupational stress and perception of decent work, and even more so in populations of apprentices, this research consisted of an investigation of how career adaptability and job control and decent work and occupational stress interrelate. We expected career adaptability and

job control to be linked to both decent work and occupational stress, and as suggested by the PWT, we expected decent work to be a mediator in the mediation of the relations through career adaptability and job control and occupational stress. In addition, as mentioned in the introduction paragraph, two models were compared to determine which was a better fit to the data and to better explain the relations among career adaptability, job control, decent work, and occupational stress. In the first model, in fact, the previously mentioned variables were related, and links were added to predict career adaptability and job control with decent work and occupational stress. In the second model, decent work was considered a mediator between the two antecedents and work stress. Finally, we examined to what extent the hypothesized relationships vary according to some demographic variables, namely, gender, apprenticeship year, socioeconomic level, and organization size.



## 4.3 Method

### 4.3.1 Participants and procedure

The present study was performed in the Italian-speaking region of Switzerland. Participants were apprentices enrolled in a three-year VET program that combined 3-4 days of work with 1-2 days at school. They were asked to complete an online questionnaire (administered via Qualtrics survey software). The group of chosen apprentices were in the middle-end of their 1st year from March to May in 2021 (i.e., at T1). For each of the two data collections, the students were personally reached out to in their IT classrooms, and both the topic of this study and how to open and complete the questionnaire were explained. The first section of the survey included sociodemographic questions. This section also contained questions about their academic situation, i.e., if they had to repeat some of their VET training years, and questions about the education they received before starting the apprenticeship. Then, some questions were asked that were concerned with the size of their company and their salary. At the end of this first section, we presented some questions about the linearity of their career and academic path; i.e., it was asked if another apprenticeship in another profession had previously been achieved and if the respondent had plans for the next year (e.g., abandoning the current apprenticeship for another, starting a new job or a new school). The second section of the questionnaire included several psychometric scales that were used to assess the variables and the concepts mentioned in the hypothesis.

The sample was selected from five public vocational schools and chosen to achieve a balanced representation in terms of regions. The sample ultimately included 530 apprentices; 244 were women (46%), and 286 were men (54%). In our sample, 298 were in their first year (56.2%), and 232 (43.8%) were in their last year; their average age was 19.46 years ( $SD = 3.54$ ). The apprentices were trained in the following occupations: bricklayer (19.6%), plumber (10%), logistics employee (12.1%), office worker (9.4%), heating systems installer (2.3%), retail worker (8.3%), pharmacist's assistant (11.5%), medical practice assistant (15.8%), hairdresser (7.9%) and veterinary practice assistant (3%). The participants' parents' professions were coded using the ISCO-20 system to have an indirect estimation

of their socioeconomic levels (Ganzeboom et al., 2010). As a result, we found that 15.1% of the participants belonged to the lower socioeconomic level ( $n=80$ ), 11.7% belonged to the lower-middle socioeconomic level ( $n=62$ ), 28.9% belonged to the upper-middle socioeconomic level ( $n=153$ ) and 41.3% belonged to the upper socioeconomic level ( $n=219$ ). It should be noted that we were unable to assess the socioeconomic level of 16 participants. Finally, concerning the sizes of companies, 27.9% ( $n = 148$ ) of the participants worked at a microenterprise (1 to 9 employees), 31.1% ( $n = 165$ ) worked at a small enterprise (10 to 49 employees), 28.9% ( $n = 153$ ) worked at a medium-sized enterprise (50 to 249 employees), and 11.1% ( $n = 59$ ) worked at a large enterprise (more than 250 employees). Five participants did not provide this information.

#### *4.3.2 Measures*

##### *Career adaptability*

The validated Italian Career Adapt-Abilities Scale (Soresi et al., 2012) consisted of 24 items measured through a 5-point Likert-type scale, with responses ranging from 1 (I have very little of this ability) to 5 (I have a lot of this ability). The scale is composed by five 4-item subscales: Concern (e.g., “Realising that the choices I make today will affect my future”), Control (e.g., “Be consistent/tenacious”), Curiosity (e.g., “Be curious and interested in what is happening around me”) and Confidence (e.g., “Solving problems”). The English version has a Cronbach’s alpha of .92 (Savickas & Porfeli, 2012) while the value for the Italian version is .79 (Soresi et al., 2012).

##### *Job control*

To assess job control, we used the Short Questionnaire for Job Analysis (Prümper et al., 1995), by selecting 3 items of this questionnaire. The participants answered on a 5-point Likert-type scale ranging from 1 (never/very rarely) to 5 (often/very often). An example item is “Can you choose which tasks to perform?”. These items were translated into Italian for the present study. The English version has a Cronbach’s alpha of .70 (Prümper et al., 1995).

##### *Decent work*

In this study, the Decent Work Scale (Duffy et al., 2017) was intended to assess decent work. Specifically, we used the Italian version translated and validated by Masdonati et al. (2019). In the scale, there are 15 items to which people answer by a 7-point Likert-type scale where 1 means strongly disagree and 7 a strongly agree. The questionnaire includes five 3-item subscales: Safe working conditions (e.g., “At work, I feel safe from any form of emotional or verbal attack”), Access to health care (e.g., “The options offered by the Swiss health care system are acceptable”), Adequate Compensation (e.g., “I am rewarded adequately for my work”), Free Time and Rest (e.g., “I have free time during the work week”), and Complementary Values (e.g., “The values of my organization match my family values”). The Cronbach’s alpha for both the English and Italian versions is .86.

#### *Occupational stress*

The Perceived Stress-at-Work Scale (De Bruin & Taylor, 2005) was exploited to measure occupational stress. The scale is composed by 4 items. Each participant answers on a 5-point Likert-type scale ranging from 1 (never/very rarely) to 5 (often/very often). An example of item is “My job is stressful”. We employed the Italian version validated by Marcatto et al. (2015). The English scale (De Bruin & Taylor, 2005) has a Cronbach’s alpha of .90 while the value for the Italian version is .80 (Marcatto et al., 2015).

#### *4.3.3 Missing data and data cleaning*

All the information collected with the survey was directly downloaded after each wave from Qualtrics into SPSS. The database of the different waves was merged at the end of the data collection. Database cleaning was performed, excluding students who took an excessively short time to complete the questionnaire. For example, considering that the average time to answer the questionnaire was 30 min, it was decided not to consider questionnaires with response times of less than 15 min. After that, different procedures to implement data cleaning were applied. First, the total scores of participants who did not answer two items of a scale were not considered. Second, the outliers were discarded considering the Mahalanobis distance. Finally, when a participant answered the same scale systematically using the neutral answer (e.g., "neither agree nor disagree"), the total score of that scale

was not considered. Participants were not forced to respond to each question. In addition, some apprentice respondents did not close the questionnaire properly. Thus, for them, only partial data were saved. After data cleaning, 530 questionnaires were considered valid for the first wave, i.e., 298 for the second wave and 232 for the third wave.

## 4.4 Results

Descriptive statistics and correlations are presented in Table 1 and 2. A series of ANOVAs permitted us to analyze the impacts of potential moderators such as gender, the apprenticeship year, socioeconomic level, and organization size on the different variables. The apprenticeship year had a significant impact on the level of career adaptability,  $F(1,512) = 4.150, p = .042, \eta^2 = .008$ ; first-year apprentices scored lower than last-year apprentices. A gender difference was observed for decent work, with men scoring higher than women,  $F(1, 522) = 4.66, p = .031, \eta^2 = .009$ . The apprenticeship year (first vs. last year) also had a significant impact on decent work, with higher levels being found in the first-year group,  $F(1,522) = 11.034, p = <.001, \eta^2 = .021$ . While there was no impact of socioeconomic level, a difference across organization sizes was found regarding the perception of decent work conditions; apprentices working in microenterprises,  $F(1,310) = 4.264, p = .040, \eta^2 = .014$ , or in large enterprises,  $F(1,205) = 5.935, p = .016, \eta^2 = .020$ , had a greater propensity to perceive their working conditions as decent. Finally, regarding occupational stress, an effect of all variables except socioeconomic level was found. First, occupational stress scores showed a gender difference, with women scoring higher than men,  $F(1,474) = 5.356, p = .003, \eta^2 = .011$ ; second, an impact of the apprenticeship year was observed,  $F(1,474) = 24.999, p = <.001, \eta^2 = .050$ , with last-year apprentices scoring higher than first-year apprentices; third, a significant difference was found between apprentices working in differently sized enterprises,  $F(3,468) = 5.629, p = <.001, \eta^2 = .035$ , with higher levels of stress being found for apprentices employed at micro- and medium-sized companies than for those employed at large enterprises. A further analysis consisted of analyzing whether there were significant differences between men and women in each of the five dimensions of decent work. To do so, the averages of the answers were taken and compared via Student's *t* test. Significant differences between men and women were found only for the dimension of free time and rest ( $t(1) = 4.132; p <.00$ ); women were found to be more dissatisfied than men in this respect.

Table 1

Means, standard deviation, kurtosis, and correlation matrix.

Variable	$\alpha$	$M$	$SD$	$S$	$K$	1	2	3	4
1 Career adaptability	.95	4.05	0.60	-0.61	0.29	–			
2 Job control	.85	3.39	0.92	-0.48	-0.20	.33***	–		
3 Occupational stress	.90	2.76	1.14	0.37	-0.87	-.08	-.23***	–	
4 Decent work	.81	4.61	1.04	-0.39	0.27	.19***	.27***	-.55***	–
5 Gender	–	–	–	–	–	-.01	-.01	-.10*	.09*
6 Tenure	–	–	–	–	–	.09*	.14**	.22*	-.14**
7 Socioeconomic level	–	–	–	–	–	-.04	-.06	-.00	.03
8. Organization size	–	–	–	–	–	-.00	.05	-.04	.01

Note. M= mean; SD= standard deviation; Sk= skewness; K= kurtosis.

Gender: 0 = women, 1=men. Years in vocational training: 0= first year; 1= last year.

Gender and Tenure are a dichotomous variable. Point-biserial correlations were calculated between gender, tenure and the other variables.

Socio-economic level: 1= lower-middle level; 2= upper-middle level; 3= upper level. Organization size: 1= microenterprise; 2= small enterprise; 3= medium enterprise; 4= large enterprise.

Socio-economic level and Organization size are ordinal variable. Point-biserial correlations were calculated between socio-economic level and organization size and the other variables.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 2

*Means and standard deviations for men, women, short-tenure, long-tenure, lower-middle socioeconomic level, upper-middle socioeconomic level, upper socioeconomic level, microenterprise, small enterprise, medium enterprise, and large enterprise.*

Variable		Career adaptability		Job control		Occupational stress		Decent work		
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1	Gender	Men	3.37	0.93	3.37	0.93	2.65	1.09	4.70	0.98
		Women	3.40	0.91	3.40	0.91	2.89	1.19	4.50	1.11
2	Tenure	Short tenure	3.27	0.89	3.27	0.89	2.53	1.06	4.74	1.02
		Long tenure	3.53	0.93	3.53	0.93	3.04	1.18	4.44	1.05
3	Socioeconomic level	Lower-middle level	3.42	1.02	3.42	1.02	2.72	1.12	4.54	1.10
		Upper-middle level	3.46	0.82	3.46	0.82	2.78	1.18	4.66	0.99
		Upper level	3.30	0.93	3.30	0.93	2.80	1.13	4.61	1.06
4	Organization size	Microenterprise	3.36	0.94	3.36	0.94	2.71	1.11	4.72	0.99
		Small enterprise	3.32	0.92	3.32	0.92	2.80	1.13	4.48	1.09
		Medium enterprise	3.45	0.92	3.45	0.92	2.96	1.18	4.54	0.98
		Large enterprise	3.48	0.90	3.48	0.90	2.23	0.98	4.92	1.12

*Note.* M = mean; SD = standard deviation

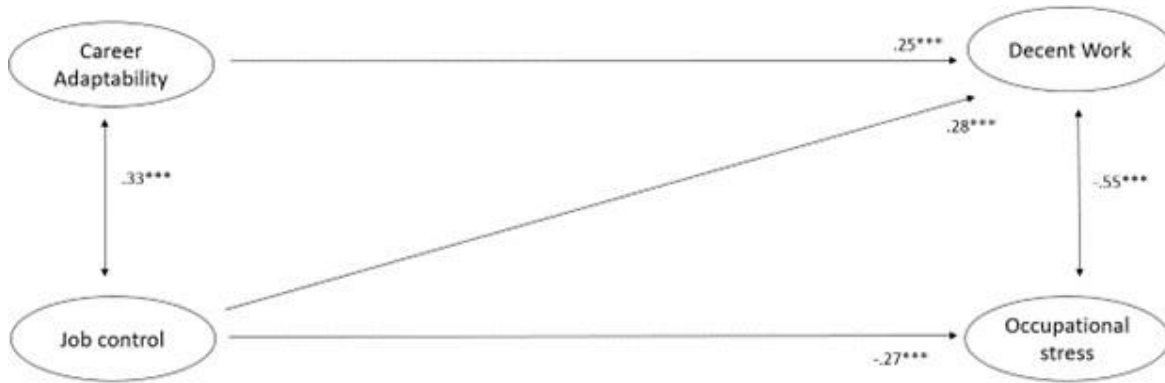
Before setting up the SEM, we tested the measurement model. The latter was associated with acceptable fit indices,  $\chi^2(98) = 219.719$ ,  $p < .001$ , TLI = .936, CFI = .948, and RMSEA = .065. After applying the measurement model, a first SEM (Model 1) where career adaptability and job control directly impact decent work and occupational stress was defined. This first SEM was associated with fit indices that were slightly too low:  $\chi^2(100) = 351.393$ ,  $p < .001$ , TLI = .871, CFI = .892 and RMSEA = .092. Considering modification indices, a second adjusted model (Model 2) was computed that considered three correlations between errors of items of the decent work scale. This adjusted model was associated with acceptable fit indices,  $\chi^2(95) = 185.440$ ,  $p < .000$ , TLI = .951, CFI = .961, and RMSEA = .057. In the second model, career adaptability directly influenced decent work, and job control directly impacted occupational stress and decent work. Career adaptability and job control were positively correlated, whereas decent work and occupational stress were negatively correlated. The model was found to explain 7% and 20% of the variance in occupational stress and decent work, respectively. However, the links between career adaptability and occupational stress were found to be nonsignificant. We then tested a third model (Model 3) from which we removed the nonsignificant relations between variables that were also associated with acceptable fit indices,  $\chi^2(96) = 185.441$ ,  $p < .001$ , CFI = .962, TLI = .952 and RMSEA = .056. The standardized coefficients of Model 3 are presented in Figure 1. The model was found to explain 7% and 19% of the variance in occupational stress and decent work, respectively.

Model 4 considered decent work as a possible mediator between career adaptability and job control and occupational stress. The fit indices of this alternative model were found to be acceptable,  $\chi^2(96) = 197.394$ ,  $p < .001$ , TLI = .946, CFI = .957, and RMSEA = .060, and very similar to the values of Model 3. The standardized beta values of Model 4 are shown in Figure 2. The model was found to explain 16% and 65% of the variance in decent work and occupational stress, respectively.



Figure 1

Model describing the link between apprentice's occupational stress and decent work, Model 3

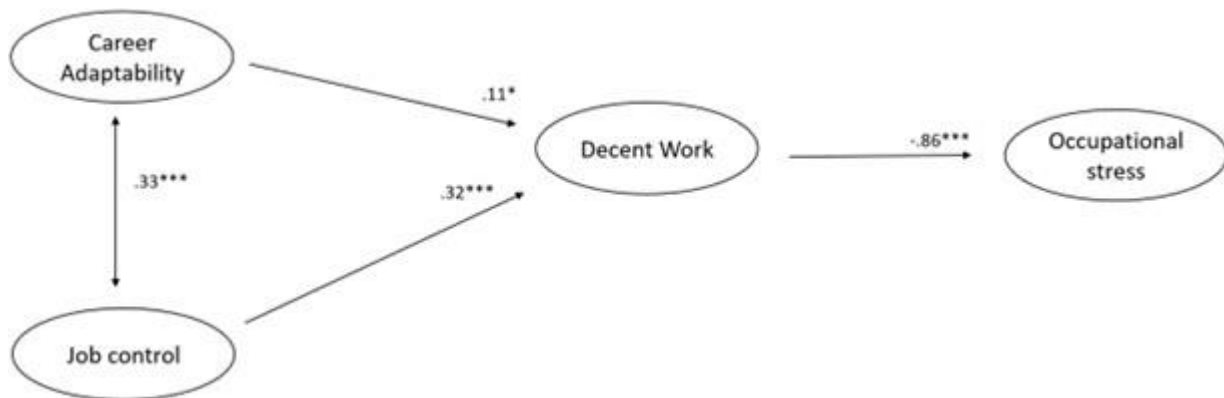


Note.

\*  $p < .05$ . \*\*  $p < .01$  \*\*\*  $p < .001$

Figure 2

Model predicting apprentice's occupational stress and decent work, Model 4



Note.

\*  $p < .05$ . \*\*  $p < .01$  \*\*\*  $p < .001$

In this model, decent work could be considered a mediator of the impacts of career adaptability and job control on occupational stress. From Model 4, we observed that the link between job control and occupational stress, which was significant in Model 3, was statistically nonsignificant. For Model

4, indirect effects were tested using the Sobel test. First, it was found that the indirect effect of career adaptability on occupational stress through decent work was significant ( $Z = 2.135$ ;  $p = .003$ ). Decent work, therefore, appears to be a significant mediator of the effect of career adaptability on perceived occupational stress. Similarly, second, the indirect effect of job control on occupational stress was tested through decent work. Again, the indirect effect was significant ( $Z = 4.580$ ;  $p < .001$ ). Thus, decent work appears to be a significant mediator of the effect of job control on occupational stress. Finally, we reran Models 3 and 4, including gender and the apprenticeship year in the models as control variables. For Model 3, when controlling for gender, some indicators of fit were modified, but they remained within the acceptable range,  $\chi^2(108) = 424.704$ ,  $p < .001$ , CFI = .927, TLI = .909 and RMSEA = .074; the same was found for tenure,  $\chi^2(108) = 359.713$ ,  $p < .001$ , CFI = .942, TLI = .927 and RMSEA = .066. Specifically, the regression indices show a significant effect of gender ( $\beta = -.13$ ;  $p = .005$ ) and tenure ( $\beta = .27$ ;  $p < .001$ ) on perceived occupational stress but only a significant effect of tenure ( $\beta = -.26$ ;  $p < .001$ ) on decent work. For Model 4, when controlling for gender and tenure, despite some fit indices changing, the values remained within the threshold of acceptability both for gender,  $\chi^2(108) = 446.217$ ,  $p < .001$ , CFI = .923, TLI = .902 and RMSEA = .077, and tenure,  $\chi^2(108) = 380.511$ ,  $p < .001$ , CFI = .937, TLI = .921 and RMSEA = .069. In particular, the regression indices show a significant effect of gender ( $\beta = -.13$ ;  $p = .005$ ) and tenure ( $\beta = .27$ ;  $p < .001$ ) on perceived occupational stress but only a significant effect of tenure ( $\beta = -.26$ ;  $p < .001$ ) on decent work.

To assess the fit indices, we used the comparative fit index (CFI) and Tucker–Lewis’s index (TLI), which confirm an appropriate fit when their values equal or exceed .90 (Medsker et al., 1994). We also used the root mean square error of approximation (RMSEA) value as an index of model fit, which is considered acceptable when it is equal to or below .08 (Byrne, 2010). In addition to the already mentioned CFI, TLI and RMSEA, we referred to the  $\chi^2$  per degrees of freedom ( $\chi^2/df$ ), which indicates a good fit when the value is equal to or below 3 (Kline, 2005). Both Model 3 and Model 4 were found to be associated with adequate fit indices. The RMSEA index of Model 4 was found to

be slightly higher than that of Model 3 but remained within the range of adequacy. Therefore, this study does not allow us to determine which of the models is the most adequate.

## 4.5 Discussion

With this research, we aimed to investigate the relationships between apprentice career adaptability, job control, decent work, and occupational stress. In line with the PWT and our hypothesis, in the final model (Model 3 shown in Figure 1), occupational stress and decent work were found to be negatively correlated. According to Duffy and colleagues (2016), secure work conditions, which is one of the five dimensions of decent work, involve having physical and psychological security. Thus, having this security could mitigate the experience of stress. Indeed, in line with this, in Model 4, decent work was found to significantly and directly influence the perception of occupational stress. The results of both Model 3 (Figure 1) and Model 4 (Figure 2) suggest that career adaptability, as already found in past studies, relates directly to decent work (Tokar & Kaut, 2018; Vilhjálmsdóttir, 2021). In neither model did the direct relation between career adaptability and occupational stress appear to be statistically significant; rather, it is the relation between career adaptability and occupational stress that is partially mediated by decent work. To our knowledge, the relationship between career adaptability to decent work and occupational stress has never been assessed in apprentices. In addition to what is indicated by the PWT, we included in the model the relationship between decent work and an apprentice's level of job control. The results imply the existence of a significant direct influence of control at work on the perception of having decent work. Hence, job control might be important for apprentices to have in order to perceive their work as decent. The significant link between job control and occupational stress observed in both Model 3 and Model 4 suggests that the perception of having control at work can decrease occupational stress in apprentices, as stated in previous literature (Chiang et al., 2010; Daniels & Guppy, 1994; Duffy, 2019).

The present study shows the relevance of examining both personal, such as career adaptability, and contextual, such as job control, resources for promoting successful career development and achieving overall individual well-being. In this sense, the interactionist perspective of life design (Nota & Rossier, 2015) proposes that career development must be understood as an active

interrelation between a person and his or her external context. In our study, career adaptability was found to significantly influence the perception of decent work and thus to indirectly impact the level of perceived occupational stress. Overall, career adaptability has been shown to have positive associations with life satisfaction. For example, the results of the cross-sectional study by Santilli and colleagues (2017) indicated a direct effect of career adaptability on life satisfaction in Italian adolescents and a fully mediated effect through time perspective in Swiss adolescents. According to Hirschi (2010b), career adaptability skills are related to career success. Moreover, concerning career adaptability, Germeijs and Verschueren (2007) stated that such adaptability is always associated with the successful management of vocational transitions. During the same year, Fouad (2007) showed that career adaptability is related to a lower probability of experiencing prolonged unemployment; more recently, Parola and Marcionetti (2021) suggested that high career adaptability scores are linked to less career indecision and more life satisfaction. Therefore, concerning adolescent career development and adults' vocational development, it is essential to consider the variable of career adaptability, which thus emerges as highly relevant for vocational education and training (VET). Secondary but not less important is the influence of job control on the perception of decent work and well-being, which is understood as the absence of occupational stress. First, it was largely assumed that the workplace has an important function in promoting the well-being of employees. Generally, it has been demonstrated that job control is a full mediator of the negative relationship between self-employment and occupational stress (Hessels et al., 2017). In the context of learning by newcomers, for apprentices, job control was found to facilitate organizational learning and strain reduction. Taris and Feij (2004) examined the impact of learning and stress as a function of different configurations of the JDC model of Karasek and Theorell. Taris and Feij (2004) highlighted that with elevated scores of controls and demand, stress decreases over time (perhaps because of learning); with low levels of stress and control, stress increases over time (perhaps due to a loss of knowledge); and with low demand and high control, learning increases over time (perhaps due to low stress levels). Thus,

following what previous literature has shown, the relevance of considering career adaptability and job control for career development and individual well-being appears to be meaningful.

Second, decent work appears in this study as a mediator of the influence of individual resources such as career adaptability and contextual resources such as job control on well-being, understood as the absence of occupational stress. These results are partly congruent with what the original PWT model shows (Duffy et al., 2016), i.e., that career adaptability is seen to directly influence the perception of decent work, which has well-being as an outcome. Similarly, the results of our study confirm the role of decent work as a mediator of the effect of career adaptability on well-being, understood as the absence of occupational stress. In this sense, Zammitti et al. (2021) showed that a propensity to consider one's work decent is present in people with a strong level of career adaptability. In line with this, Ginevra et al. (2021) also observed a link between career adaptability and orientation toward decent work. On the other hand, few studies have been conducted on the role of decent work as a mediator of the relationship between well-being and job control. Recently, Fischer et al. (2021) proposed that job control should also be considered a determinant of decent work. Green (2021) also proposed the consideration of the influence of the professional context, and thus job control, on decent work. Given the recentness of the construct and the studies conducted on it, the result regarding the role of decent work as a mediator is an important and significant starting point that remains to be explored in the future. Furthermore, our results suggest that decent work can be considered both as a possible antecedent of occupational stress (Model 4) or as simply covarying with occupation stress (Model 3). In both cases, therefore, from a theoretical and career development research point of view, an important outcome to consider is that decent work is negatively associated with occupational stress and thus positively associated with perceived well-being.

In addition, the results found herein should be considered in relation to the sociocultural context of the apprentices examined. First, career adaptability in a context such as Ticino could be less limited than that found in other contexts because of the nature of its labor market. In fact, since the external context, i.e., the job market, is more demanding, a person has to demonstrate greater

career adaptability to be hired. It is interesting, however, that although this adaptability is limited, it still impacts the perception of decent work (Model 4) and thus, indirectly, well-being. Thinking about the reality of apprentices in Ticino, it is still important to exercise and develop this skill of adapting one's career to reality and the external context to be able to find oneself in a situation of well-being. Similarly, it can be assumed that job control is also partly dependent on organizational realities, assuming that in a small to medium-sized enterprise, typical of the Ticino context, an apprentice is likely to have more control over his or her tasks and latitude of action than in a larger enterprise. It is important to mention the fact that the VET system in Ticino is chosen as a postcompulsory education mainly by adolescents who are academically weaker, as shown by Scuola Ticinese in Cifre (Divisione della scuola, 2022). This trend is different in German-speaking Switzerland and in Germany, where there is a different view of vocational training. In these regions, there is a view that learning a job after compulsory schooling is not something only to be relegated to those who cannot continue with higher education.

Moreover, the findings reveal significant gender differences in occupational stress and decent work. The fact that men show a higher level of perception of decent work than women, as well as less stress, demonstrates once again the existence of a gender gap, even for apprentices.

Concerning decent work, the results regarding gender differences in each of the five dimensions of decent work also show the existence of a gender gap. Indeed, the fact that women consider themselves to have less rest and leisure time may be a sign, i.e., a precursor to the inequality of extra work roles for men and women. Future research could deepen this aspect. Second, horizontal segregation, i.e., women's and men's choice of certain professions, could also influence the results found. Second, regarding the difference found in terms of perceived occupational stress, women have always appeared in the literature as more stressed than men (Bartels et al., 2021; Baruch et al., 1987; Frankenhaeuser et al., 2012), both at work and in life. The results of the present study confirm this trend, even for apprentices. In general, gender, as well as socioeconomic context, appears to influence

the results of the study. This can serve as a starting point for future studies and research, as well as a starting point for practical action, to eliminate this inequality in well-being in the work context.

In terms of practical implications, the results of this research indicate that apprentices' personal resources, including career adaptability, and contextual resources, including job control, might be crucial in decreasing their perceived occupational stress and enhancing their perception of having decent work. Even if it is important to respect the time necessary for learning, this study, similar to others before it (Bond & Bunce, 2001; Gallie et al., 2013; Hessels et al., 2017), shows that having control at work allows a better management of stressful situations and a promotion of well-being. Moreover, this research shows a link between job control and decent work; leaving some autonomy at work could allow apprentices to change in some ways the conditions on which they can act. Given the importance of job control on well-being, shown by the results, it might be considered to periodically monitor the degree of control perceived by apprentices. As a preventive measure, it could also be considered to assess the individual's need for autonomy of action during interviews with the counsellor before choosing an apprenticeship. Understanding how much control is important to the person may allow the individual to be directed toward jobs where it is possible to have freedom of action.

Second, based on the results, it is important to consider from a practical point of view the differences that have emerged in terms of gender and year of apprenticeship. In terms of gender, it is important, as mentioned before, to eliminate this gender gap in well-being. Possible actions could consist of proposing individual interviews with an apprentice (man or woman) who manifests a situation of stress and discomfort in the workplace to understand what provokes these feelings. Otherwise, in advance, one could try to understand the sensitivity to certain elements that cause stress in the person and act, in advance, on the choice of apprenticeship. In terms of the apprenticeship year, on the other hand, stress attempts to mitigate the latter, which probably appears higher in the final year due to the imminent end-of-apprenticeship exam and having to face the transition to another stage of life. Ultimately, the fact that career adaptability decreases during apprenticeships is a result



that needs to be investigated further by trying to understand what causes it. Most likely, the higher level of perceived stress in the last year can certainly play a role. This is a future outcome that remains to be investigated. Second, Rossier (2015) showed the significance of developing career adaptability as an element of the self-regulatory mechanism that aims to optimize person-environment fit, deal with external obstacles, and build a satisfying career path. Having a high level of career adaptability could help people obtain decent work and, consequently, reduce their occupational stress. For this reason, it is important to develop career guidance actions to increase the chances for apprentices to obtain decent work. Green and colleagues (2020), for instance, focused on the study of a method to develop proactivity and career adaptability among future university students, i.e., those in the transition phase to university. The proposed method involved measuring career adaptability three times using the Career Adapt-Abilities Scale (Savickas & Porfeli, 2012). The results showed a success of this intervention method and thus a real improvement in career adaptability. For the apprentices involved, it might be interesting to apply a similar method, given the importance of this resource for well-being, as seen in the results.

Finally, our study allows us to develop the PWT by including the relationship between occupational stress and decent work. In this sense, it could be possible not only to expand the defined outcomes of decent work but also to create a model that combines the PWT and the JDCA model. This hybrid model could in fact include job control, decent work, and occupational stress. Future research could therefore aim to test the relationship between these three variables.

The relationships among decent work, job control, occupational stress and career adaptability are interesting to highlight when we consider practical implications. Indeed, in the context of vocational training, it should be important that an apprentice is apt to adapt in different career contexts, i.e., transitioning from work to school and back requires considerable flexibility and adaptability. In addition, a trainer who provides some latitude for an apprentice to make mistakes allows him or her not only to improve but also to perceive his or her work as decent. In turn, having decent work increases one's work well-being and reduces one's level of perceived occupational

stress. In conclusion, this study confirms the importance of apprentices' personal dispositions (career adaptability) and contextual resources (job control) to their ability to overcome poor work conditions and occupational stress. Some specific contextual factors, such as a lack of control at work, can be considered risk factors for early turnover among apprentices enrolled in a VET program; thus, interventions should focus on giving these individuals a correct level of control in their own work. Finally, counsellors should aim to sustain a more conscious development of career adaptability among apprentices.

Last, this study has some limitations. Given the cross-sectional design of the study, the mediation effects that emerged with regard to the job control-decent work-occupational stress relationship were not deeply examined. Future longitudinal research would allow us to better study this phenomenon. In addition, it would have been interesting to include more contextual variables, such as social support at the workplace, lifelong learning possibilities offered by the organization or even the possibility of easily reconciling work and free time (e.g., flexible working hours). In addition, the research design did not allow us to obtain a representative sample of all Swiss VET apprentices. The utilized sample did not allow us to compare the different professional fields due to the small sample size. It would therefore be interesting to analyze these types of differences in a larger sample of apprentices in the future. Moreover, the sample was not representative of all VET apprentices in Switzerland, and the results might have been impacted by the professional fields considered. For example, differences in work contexts between health care professions and office work should cause differences in perceived occupational stress and decent work.

## 4.6 Conclusions

This study confirms the importance of individual and contextual resources to having access to decent work conditions and overcoming occupational stress. Some specific elements, such as a lack of control at work, can be considered risk factors; thus, interventions should focus on them. Counsellors can in turn contribute to the development of career adaptability resources. Finally, individual differences depending on elements such as gender, tenure, socioeconomic level, did not have an impact on the considered variable.

## 5 A longitudinal study of relations among apprentice's nonwork orientation, decent work and job satisfaction<sup>5</sup>

### 5.1 Abstract

The type of nonwork orientation and decent work perception are supposed to be important factors that influence well-being at work. In this study, 196 Swiss apprentices enrolled in a Vocational Education Training were assessed two times during the first 24 months of their apprenticeship. The results showed that there are specific links between nonwork orientations, decent work and job satisfaction over time. Concerning relations among decent work dimensions, results highlighted the importance of safe working conditions to predict complementary values perception and the importance of this last in predicting adequate compensation perception. Implications for practice are discussed.

*Keywords:* nonwork orientation; decent work; job satisfaction; Vocational Education Training; longitudinal study

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<sup>5</sup> Zambelli, C., Rossier, J., & Marcionetti, J. (2023). A longitudinal study of relations among apprentices' nonwork orientation, decent work, and job satisfaction. *International Journal for Educational and Vocational Guidance*, 1-20. doi.org/10.1007/s10775-023-09609-8

## 5.2 Introduction

Students in Vocational Education Training (VET) systems, such as those present in Switzerland and Germany, alternate days of work and days of school and have thus to manage a complex work-school-life balance. In these systems, adolescents are expected to integrate rapidly into an adult world and into organizations subjected to productivity and performance constraints (Masdonati et al., 2007). Recently, studies have been concerned with school and job satisfaction (Lüthi et al., 2021; Volodina et al., 2019) and the well-being of apprentices more generally (Jenni et al., 2017). In this regard, current theories make it clear that while society and organizations tend to value a heavy work investment at the expense of the other life domains (Gillet et al., 2018), more and more individuals are trying to achieve a more balanced allocation of their time and resources between their personal and professional lives. In their theory about nonwork orientations (NWOs), Hall et al. (2013) suggested that, depending on where individuals decide to allocate their resources (personal life, family, community service), there are different outcomes in terms of job and life satisfaction. On the other hand, theories make us aware of the importance of working conditions in fostering both job and life satisfaction. In particular, the *Psychology of Working Theory* (Duffy et al., 2016) considers decent work as a central aspect, which enables workers' needs, job and life satisfaction. Although these aspects might be important in explaining the well-being of apprentices, so far there are no studies that have looked at the relationships between NWOs, decent work dimensions and job satisfaction. Studies on apprentices also showed that from the first year of VET to the second year many factors change from the more tangible, such as salary, to the more psychological, such as professional socialization, professional knowledge, and soft skills of the apprentice (Stalder, 2017). As with gender, the apprenticeship year could therefore also influence NWOs, decent work perceptions and job satisfaction.

Thus, the first aim of this study was to assess the effect of gender and year of apprenticeship on the levels of the NWOs, decent work dimensions and job satisfaction, and the second aim was to investigate relationships between NWOs and decent work dimensions and their impact on job

satisfaction over time in a sample of apprentices in southern Switzerland who have started their VET. Results of this study could be potentially relevant to promote well-being during apprenticeship and to reduce early contract resignation.

### *5.2.1 Job satisfaction*

Locke (1976, p. 1300) defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences”. Job satisfaction is also defined as “the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (Spector, 1997, p. 2). Being satisfied at work serve as a source of meaning, personal fulfillment, enrichment, happiness, and satisfaction—principal elements of subjective well-being (Diener, 1984; Kahneman & Riis, 2005; Myers & Diener, 1995).

One of the best known and most cited outcomes of job dissatisfaction is turnover, or more precisely for an apprentice, the early termination of the apprenticeship contract (Azeez et al., 2016; Tschopp et al., 2014). It is known from the literature that early termination of the apprenticeship contract is a risk factor of remaining without qualifications, unemployment, poverty, and health problems (Stalder & Schmid, 2012). A further aspect that marks the importance of job satisfaction for apprentices concerns future career development as well as future career success. Indeed, apprentices who are satisfied with their apprenticeships and chosen professions will be more likely to have a positive career development in the future that will lead to greater career success (Illies et al., 2020; Koekemoer, 2014).

### *5.2.2 Nonwork orientation*

Apprentices, during their training, have to deal with various demands from school and work. How these are managed can be influenced by their needs and interests and thus by their inner drive towards non-work roles. In an attempt to deepen the understanding of how career development is linked with nonwork roles, Hall et al. (2013) proposed that research should consider individual differences in people’s orientations toward various life roles, including—but not limited to—family roles. Such NWOs refer to the degree of concern that one has for other roles relative to one’s career

(Hall et al., 2013). Hall et al. (2013) introduced the concept of NWOs as a reaction to the nonspecific treatment of diverse nonwork related domains (e.g., family, self, community, or leisure). According to them, NWO is a concept that includes three dimensions: personal life, family, and community. Individuals with a self-centered orientation (personal life) give more importance to time for oneself to pursue one's own interests (e.g., hobbies, training, etc.) (Hall et al., 2013; Voydanoff, 2001). Differently, family orientation is defined as the degree of importance attributed by an individual to the needs of the family compared to the needs of their own career (Hall et al., 2013). Finally, community concerns the degree to which the individual is interested in engaging in activities that serve the community (Hall et al., 2013).

Research investigating effects of involvement in multiple roles generally supports the expansionist hypothesis, that engagement in multiple roles is generally positively related to increased well-being and resilience (Barnet, 2008). Although NWOs are conceptually related to involvement in nonwork roles, they more specifically tap into concerns for nonwork roles relative to an individual's career. Looking at the reality of apprenticeships in which the individual has to play three roles, that of student, worker and teenager, the argument made about managing multiple life roles and the impact on well-being may indeed make sense. However, concerning the relationship between NWOs and job satisfaction there aren't studies.

Regarding gender differences in nonwork orientation, it is traditionally stated in the literature that women take on most of the care work in a family (Greenhaus & Kossek, 2014). Studies show that women have lower work centrality and higher family centrality compared with men (Greenhaus & Kossek, 2014; Greer & Egan, 2012) and that they place less importance on objective success (e.g., salary, salary growth and promotions) in comparison to subjective success (e.g., job and/or career satisfaction) (Greer & Egan, 2012). However, Hirchi and colleagues (2016) have found that there are few differences between men and women NWOs. These authors in fact highlighted that men have higher levels of personal life orientation compared to women but that there are no gender-related differences in family orientation or community orientation levels.

### 5.2.3 *Decent work*

The concept of decent work was first advanced by the United Nations (UN) in 1948 within the Declaration of Human Rights. In Article 23, al. 1 and 3, it is stated that “Everyone has the right to work [...] to just and favorable conditions of work and to protection against unemployment [...] every worker has the right to just and favorable remuneration [...] to an existence worthy of human dignity” (p.75). The International Labor Organization (ILO) has been politically advancing the promotion of more social justice in this regard, leading to its inclusion in the United Nations 2030 Agenda (2015). In relation to this, it is interesting to consider the PWT (Duffy et al, 2016), which provides a link between contextual markers of social privilege and marginalization, personal resources, working conditions, achievement, and well-being. Firstly, the PWT defines decent work as work displaying five characteristics: (1) physical and interpersonally safe working conditions (e.g., absence of physical, mental, or emotional abuse), (2) hours that allow free time and adequate rest, (3) organizational values that complement family and social values, (4) adequate compensation, and (5) access to adequate health care. These characteristics, when properly present, lead to satisfy survival, social connection, and self-determination needs, which in turn positively affects work fulfillment and general well-being. Studies have indeed demonstrated the existence of a positive relationship between decent work and job satisfaction (Ribeiro et al., 2019; Wan & Duffy, 2022; Wang et al., 2019). However, while some longitudinal studies on decent work have already been published (Duffy et al., 2020; Allan et al., 2020), no study has been conducted in a sample of apprentices or young workers having to manage possible work-school-life conflicts. Hence, regarding the link between NWOs and decent work there are no performed studies. Some insights are given by Hirschi and colleagues (2016), who found that all NWOs were significantly related to salary while only nonwork family orientation predicted career and life satisfaction.

Some authors had been interested in analyzing the construct of decent work by examining the differences between its five dimensions. For example, Svicher and Di Fabio (2022) revealed differences in perceptions between the five components of decent work. In particular, the dimensions



of adequate compensation and free time and rest were not very central for the participants to their study. The fact that these indicators are not central according to participants led the authors to underline the urgent need to advocate for more decent remunerations and working hours in Italy, where the study was conducted. Differences regarding the five dimensions also emerged in the qualitative study by Vignoli et al. (2020). In this study, participants were asked to define what decent work meant to them. It emerged that the participants had emphasized different aspects corresponding to the five dimensions of decent work said by PWT, thus highlighting the importance of considering the construct of decent work not only in a global sense but also by focusing on its individual dimensions.

#### *5.2.4 Aims of the present study*

No study explored the interplay between NWOs and decent work, and no study explored how both influence job satisfaction in a sample of apprentices. Before addressing the main aims of this study concerning the relationships among these variables, we wanted to do some preliminary analyses to examine the impact of gender and tenure on each variable. In fact, we expected that, regarding NWOs, in congruence with previous literature, there should be differences between men and women. Given the traditional view that women are more oriented towards other people's needs and interests and men more focused on themselves and their own-selves (Cruz et al., 2019; van der Vegt et al., 2020), we expected women to have a NWO more family- and/or community-oriented while men were expected to be more oriented towards their own personal sphere. Regarding the impact of tenure (Dodanwala et al., 2022; Huang et al., 2022), we assumed also that the type of NWO, decent work and job satisfaction levels are different between the first and second year of VET. In fact, we assume that between the first (T1) and the second year of apprenticeship (T2), the NWO may change to become more personally focused, that the perception of decent work will improve, and thus also that job satisfaction will increase. Then, we planned to analyze the relationships between the considered variables.

The first aim consisted in investigating how NWOs, decent work and job satisfaction are interrelated. Indeed, we expected that NWOs have an impact on job satisfaction and may mediate the relationship between decent work and job satisfaction. Secondly, concerning decent work, we assumed that it has also a direct impact on job satisfaction, as already largely suggested by previous literature (e.g. Ribeiro et al., 2019; Wan & Duffy, 2022; Wang et al., 2019). The second aim was to investigate the relationships over time among the five decent work dimensions, that is, safe working conditions, access to health care, adequate compensation, free time and rest, and complementary values. There are currently no studies concerned with the reciprocal relationship of the different components of decent work overtime. The adequate compensation component may play an important role given the current statutes of labor market conditions (ILO, 2015). We therefore expected that this specific component of decent work has an impact on the development of the four other decent work dimensions.

## 5.3 Methods

### 5.3.1 Participants and procedure

The current study was conducted in the southern region of Switzerland. We have settled to involve in our study apprentices enrolled in a three-year VET program with Federal VET Diploma. The apprentices who took part in the study came from five public vocational schools with the purpose of having a representative image of vocational training in the territory. The targeted sample size was 200 considering the rules of thumb of Muthén and Muthén (2002) who suggested that a sample size of about 150 is sufficient to assess simple CFA models. Participation in the study was voluntary. Informed consent was requested from those who agreed to complete the questionnaire. Data collections took place during March-April 2021 and 2022. The apprentices filled in the questionnaire during a school lesson, in the presence of the first author of this study. It was an online questionnaire, which they then filled in on a personal computer. The time required to complete the questionnaire was approximately 30 minutes. Only questionnaires completed by apprentices at the two points in time that is, at the end of the first school year (T1) and at the end of the second school year (T2) were considered for the analyses. Before analyzing the data resulting from the questionnaires, a preliminary cleaning of the data was performed in order to avoid any sources of bias. Database cleaning was performed, excluding questionnaires with implausible answers, and questionnaires of students who took an excessively short time to complete the questionnaire. After that, different procedures to implement data cleaning was applied. Firstly, the data relating to responses for a specific scale when the apprentice did not provide a response for more than two items (i.e., when the missing responses for a scale were more than two) were eliminated. Secondly, the responses for each scale that diverged excessively from the distribution of the mean of the respondents were discarded, applying the Mahalanobis distance calculation and eliminating the resulting outliers. Finally, when an apprentice gave answers to a scale that were only in the neutral range (e.g., "neither agree nor disagree"), the data associated with his/her answers were eliminated. The final size of the sample was 196. There were 78 women (40%) and 118 men (60%). The mean age of women was 18.4 ( $SD = 3.10$ ) and 18.6

for men ( $SD = 3.30$ ). The vocations in which the apprentices were training were bricklayer (22.8%), plumber (10.7%), employee in logistic (10.4%), office worker (11.1%), heating systems installer (4%), retailing worker (4.4%), pharmacist's assistant (9.7%), medical practice assistant (19.5%), veterinary practice assistant (2,7%), and hairdresser (4.7%).

### 5.3.2 Measures

#### *Job satisfaction*

To assess job satisfaction, we used the Job Satisfaction Scale developed by Judge et al. (1998) through an Italian version of the questionnaire. The scale is composed by 5 items rated using a 7-point Likert-type scale, with responses ranging from 1 ("Don't agree at all") to 7 ("Totally agree"). The item scores are added together to obtain the total score. The higher the total score, the greater the individual's job satisfaction. An item example is "I am quite satisfied with my current job". The value of Cronbach's alpha is .88 for the original scale (Judge et al., 1998) and was .79 for the Italian version used in the study by Masdonati et al. (2019).

#### *Nonwork orientation*

To measure NWO, we used the Nonwork Orientation Scale (Hall et al., 2013), which consist of 12 items that can be combined to form a total NWO score or can be used separately to measure the three NWO dimensions, that is, personal life (4 items), family (5 items), and community service (3 items). The participants answer each item using a 5-point Likert-type scale ranging from 1 (*to little or no extent*) to 5 (*to a great extent*). For each three dimensions, item scores are added together to obtain the dimension score. An example item for nonwork personal life orientation is "Finding time for myself is important to my overall quality of life", for family nonwork orientation is "My career decisions are made in terms of how they will affect my family", and for community service nonwork orientation is "It is important to me to have a job that allows me the flexibility to be involved in my community". The items were translated in Italian based on the original scale. The Cronbach's alpha is .76 for the original scale (Hall et al., 2013).

#### *Decent work*

The validated Italian version of the Decent Work Scale (Masdonati et al., 2019) consists of 15 items rated on a 7-point Likert-type scale, with responses ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire is divided in five 3-item subscales: safe working conditions (e.g., “I feel emotionally safe interacting with people at work”), access to health care (e.g., “I get good health care benefits from my job”), adequate compensation (e.g., “I am rewarded adequately for my work”), free time and rest (e.g., “I have free time during the work week”), and complementary values (e.g., “The values of my organization match my family values”). For each five dimensions, item scores are added together to obtain the dimension score. The global decent work score is obtained by adding together the five-dimension scores. The higher the total score, the higher is the perception of decent work. The Cronbach’s alpha for all the English and Italian version of the scale is .86.

## 5.4 Results

### 5.4.1 Preliminary analyses

Cronbach's  $\alpha$ s were computed to assess the internal consistency of the measured used. The scores are reported in Table 1: the values vary from .60 to .91, indicating acceptable to good reliability at each time point. Skewness ( $S$ ) and Kurtosis ( $K$ ) values ranged consistently between -1.26 and .87, indicating a roughly normal distribution of the scores for each scale at each time point.

A series of  $t$ -tests allowed to analyze the impact of gender and tenure. Table 2 shows the means and standard deviations for men and women, for T1 and T2. Gender had a significant impact on the level of NWO-family both at T1,  $t(170) = -4.10, p < .001, d = .94$ , and T2,  $t(164) = -2.47, p = .007$ . For the two times of measure men scored higher than women: at T1, mean score for men is 3.68 and for women is 3.06, while at T2 mean score for men is 3.48 and for women is 3.10. In addition, we observed a gender difference for NWO-community service at T1,  $t(169) = 2.00, p = .024, d = .59$ , and for NWO-personal life at T2,  $t(155) = 2.65, p = .004, d = .56$ . In both cases, women scored higher than men. In fact, for NWO-community service at T1, mean score for women is 4.35 and for men is 4.17. For NWO-personal life at T2 mean score for women is 4.54 and for men is 4.30. Regarding the difference between the two measurement times, significant differences emerged for decent work,  $t(189) = 5.26, p < .001, d = .96$ , and for job satisfaction,  $t(157) = 3.98, p < .001, d = .98$ . For decent work, the mean scores at T1 are significantly higher than those at T2, while for job satisfaction, the mean scores at T2 are higher. After that, a repeated measure ANOVA was performed to verify the existence of an interaction effect between gender (men vs women) and time of measure (T1 vs T2). A significant interaction effect between gender and time of measure emerged only for NWO-family,  $F(1, 145) = 4.51, p = .035, \eta^2 = .09$ .

Table 1.

*Cronbach's alpha's, and correlations*

Variable	$\alpha$	1	2	3	4	5	6	7	8	9
1 T1 NWO-personal life	.82									
2 T1 NWO-family	.89	.18**								
3 T1 NWO-community service	.62	.41***	.19**							
4 T1 Decent work	.80	.09	.14	.14*						
5 T1 Job satisfaction	.81	.05	.08	.08	.33***					
6 T2 NWO-Personal life	.84	.48***	-.11	.31***	.03	-.02				
7 T2 NWO-family	.91	.13	.53***	.19**	.19**	.10	.06			
8 T2 NWO-community service	.60	.29***	.14*	.51***	.17**	.02	.59***	.17**		
9 T2 Decent work	.85	.00	.06	.09	.43***	.09	-.00	.17**	.10	
10 T2 Job satisfaction	.82	-.14*	-.07	.01	.24**	.51***	-.06	-.01	.06	.31***

Note.  $\alpha$  = Cronbach's alpha. \*  $p < .05$  \*\*  $p < .01$ . \*\*\*  $p < .001$

Table 2.

*Mean and standard deviation, classified by gender and time of measure*

Variable	T1						T2					
	Male		Female		Total		Male		Female		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1 NWO-personal life	4.25	.62	4.36	.57	4.28	.63	4.30	.60	4.54	.49	4.39	.57
2 NWO-family	3.68	.88	3.06	1.05	3.38	.98	3.48	.97	3.10	.96	3.32	.98
3 NWO-community service	4.17	.59	4.35	.58	4.23	.61	4.10	.64	4.24	.55	4.16	.61
4 Decent work	4.88	.89	4.83	1.06	4.74	1.02	4.58	.96	4.34	1.12	4.48	1.03
5 Job satisfaction	5.26	1.05	5.55	1.01	5.19	1.14	5.05	1.08	5.23	1.09	5.13	1.08

Note. *M*= mean. *SD*= standard deviation

The NWO-family score was higher for men at T1 ( $M_{T1}=3.68$ ) than for women at T2 ( $M_{T1}=3.09$ ) and if for men the mean score decreases over time ( $M_{T2}=3.48$ ), it remains stable for women ( $M_{T2}=3.10$ ).

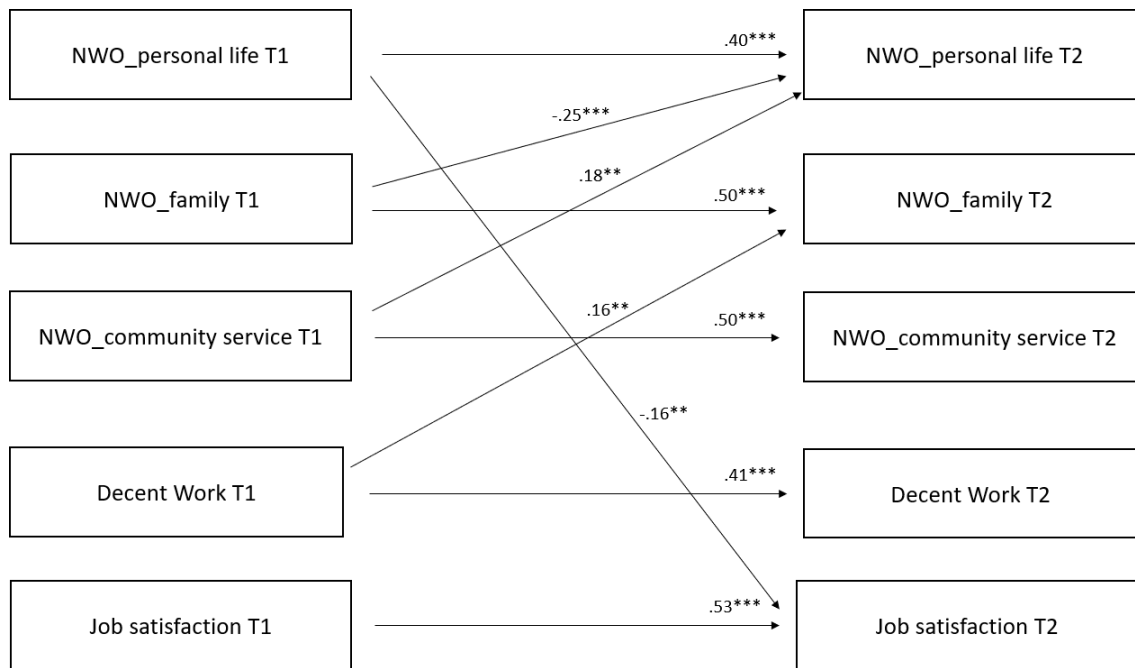
Finally, correlations between variables range from .14 ( $p < .05$ ) between decent work (T1) and NWO-community service (T1) to .59 ( $p < .001$ ) between NWO-personal life (T2) and NWO-community service (T2). Over time, interesting correlations are found between decent work and NWO-family (.17,  $p < .01$ ) and between decent work and job satisfaction (.24,  $p < .01$ ).

#### *5.4.2 Cross-lagged analysis*

The first aim of this study was to analyze the longitudinal reciprocal relations between the three different NWOs, decent work and their impact on job satisfaction. Hence, a cross-lagged structural equation model (SEM) was defined that included all constructs as observed variables. Specifically, we run a path model based on summary data resorted by total mean score for all the three variables: for NWO the three different dimensions (personal life, family, and community service) were analyzed separately while for decent work and job satisfaction the global score was considered. In the model, the observed variables at T1 predicted the latent variables at T2 (Figure 1).



Figure 1. *Cross-lagged structural equation model with NWO-personal life, NWO- family, NWO-community service, decent work, and job satisfaction.*



*Note.* Only significant paths are reported. The participants completed the questionnaire at the end of their first year (T1) and at the end (T2=T1+12 months) of their second year of apprenticeship.

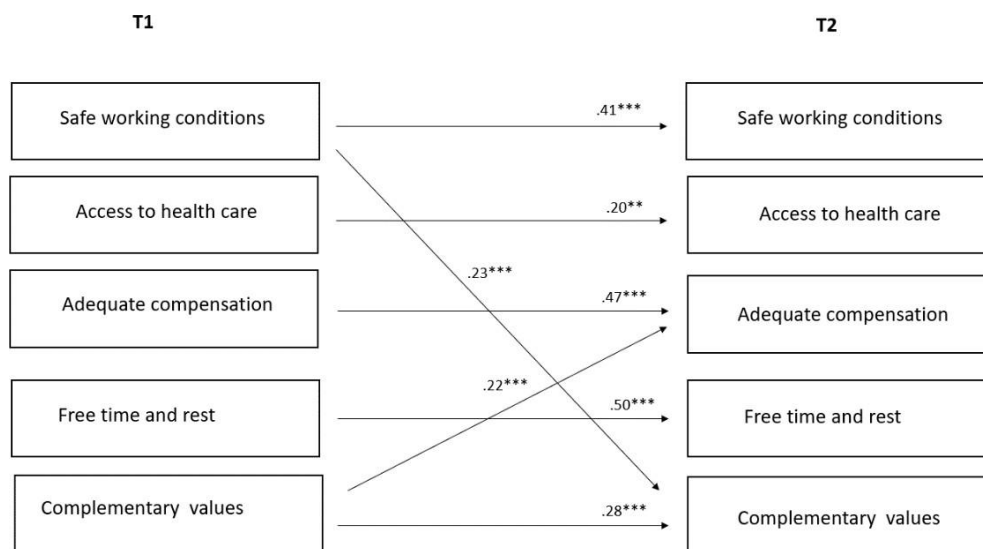
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

To assess the adequateness of the model we used the comparative fit index (CFI) and the Tucker-Lewis index (TLI), which indicate a good fit when values are equal or above .90 (Medsker et al., 1994). We used also as an index of model fit the root mean square error of approximation (RMSEA) value, which is considerable as acceptable when is equal or below .08 (Byrne, 2010). In addition to the already mentioned CFI, TLI and RMSEA, we used the  $\chi^2$  per degrees of freedom ( $\chi^2/df$ ), which indicates a good fit when the value is equal to or below 3 (Kline, 2005). Our model fitted adequately to the data,  $\chi^2(16) = 16.345$ ,  $p = .429$ , TLI = .998, CFI = .999, and RMSEA = .001. NWO-personal life at T1 was found to significantly predict job satisfaction at T2, while NWO-family and NWO-community service had a significant impact on NWO-personal life at T2. Lastly, decent

work was found to have a significant impact on NWO-family at T2. Instead, job satisfaction was found to have no impact on the other variables over time.

The second aim was to assess the relationship between dimensions of decent work i.e., safe work conditions, access to health care, adequate compensation, free time and rest and complementary values, during time, therefore a second cross-lagged SEM model including only the five dimensions of decent work was specified. This model was computed considering the raw mean score and adequately fitted the data,  $\chi^2(18) = 21.129, p = .273, TLI = .979, CFI = .992,$  and  $RMSEA = .030.$

Figure 2. *Cross-lagged structural equation model with the five decent work dimensions.*



*Note.* Only significant paths are reported. The participants completed the questionnaire at the end of their first year (T1) and at the end (T2=T1+12 months) of their second year.

\*  $p < .05,$  \*\*  $p < .01,$  \*\*\*  $p < .001.$

As reported in Figure 2, the autoregression paths were all significant; scores were higher for adequate compensation and free time and rest. Moreover, only safe working conditions and complementary values were significant predictors of the other dimensions at T2. In fact, safe working

conditions at T1 seemed to positively predict complementary values at T2 and complementary values at T1 appeared to positively prognosticate adequate compensation at T2.

## 5.5 Discussion

In the VET system, where apprentices must cope with the challenges of the school and work environment, it is important to know how different personal and contextual factors might influence their occupational well-being in order to create interventions fostering optimal educational and professional experience. In particular, three interesting aspects emerged from this study. First, that in this study, and contrary to expectations, men in apprenticeships have a higher non-work family orientation than women, who, on the other hand, have a higher non-work community service and a higher non-work personal orientation than men. Second, that non-work personal orientation could be a partial mediator between non-work family and non-work community orientation and job satisfaction. The perception of decent work, moreover, would seem to allow for non-work family orientation later on. And thirdly, that for apprentices it might be important to perceive that one has safe working conditions in order to be able to have a perception of complementary values later on, which, in turn, might allow for a greater perception of receiving adequate compensation. An in-depth discussion of these aspects is proposed below.

### *5.5.1 Gender and school year differences*

As mentioned above, for gender, we found that male apprentices tend more to have a nonwork family orientation during the first year of VET. Interestingly, this result appears to be in contrast with what is usually stated by the literature regarding the tendency of women towards the family and men towards their personal sphere (Dean & Jayachandran, 2019; Vegt & Kleinberg, 2020). The increased male orientation towards the family sphere on the part of apprentices might be indicative of a society that is moving towards more egalitarian gender roles. In addition, some men may have chosen to pursue an apprenticeship because, compared to other forms of education and training, this one allows them to earn a salary, albeit a low one, and thus financially support their families (both their parents, for the younger ones, and their partner and children, for those who are already a few years older). In support of this statement, some studies had previously been interested in gender differences in earnings orientation: these studies had in fact seen that men compared to women were more oriented

towards the salary dimension. For example, Barron (2003) had cited, in her study on differences in salary negotiation between men and women, a male perspective that higher salary was associated with self-determination and prestige. Judge and colleagues (2008), on the other hand, had shown how a male orientation towards earnings (traditional gender orientation) was nevertheless linked to less gendered attitudes where, for example, home and family care was also seen as a task that men were also expected to do. Consistent with this result, female apprentices are also more likely to have a nonwork community service orientation during the first year and a nonwork personal life orientation in the second year. These differences would seem to suggest that women tend to initiate their own career path thinking less than men to their future parental role, and more than men to their role in the community; this is also confirmed by a higher level of personal nonwork orientation of women in the second year.

#### *5.5.2 Nonwork orientations and job satisfaction*

The results of the SEM model showed that there is an impact of nonwork family orientation (negatively) and community service orientation (positively) on nonwork personal life orientation and that this latter has a negative effect on job satisfaction. Moreover, in the model a direct and positive influence of decent work perception on family nonwork orientation emerged. The possible chain of effects that seems to emerge would imply that a better perception of working conditions would be followed by a greater possibility for family orientation, which would be followed by a lower personal orientation (further favored by a community service orientation) that would finally result in a lower job satisfaction. Previous authors (e.g., Barnet, 2008; Schomburg, 2007) have shown that engagement in multiple roles, i.e., not just work, increases individual well-being and Hirschi et al. (2016) found that nonwork family orientation predicted career satisfaction. However, our findings seem to show that at the beginning of an apprenticeship having a personal life nonwork orientation, i.e., having the need also for adequate free time to cultivate personal interests and passions, that might be increased by the need for being implicated in the community, could be seen as an early indicator of future job dissatisfaction. Practically, a personal life nonwork orientation could therefore induce a work-school-

life conflict, foster future job dissatisfaction and then perhaps a future apprentice's contract dissolution of the contract.

### *5.5.3 Decent work and nonwork orientation*

The results of this study showed a significant impact of decent work on family nonwork orientation. As explained above, few studies have been done on the link between perceptions of decent work and nonwork orientation, and even fewer when it concerns longitudinal studies. Looking at the PWT reference model (Duffy et al., 2016), decent work permits to satisfy three types of needs: survival needs, social connection needs and self-determination needs. In this sense, the impact of decent work on family nonwork orientation can be explained by the fact that an optimal, hence decent, working environment allows the needs of primary social connection, both directly with colleagues and indirectly with family, to be satisfied. Thinking in the context of an apprenticeship, a young person will be more oriented towards the needs of others and especially of the family when decent working conditions permits it. According to Hall et al. (2013), family nonwork orientation would lead to higher life satisfaction, which is also an outcome of decent work perception according to PWT.

### *5.5.4 Considering the five decent work dimensions*

The cross-lagged analysis showed more stability in time concerning the perception of adequate free time and rest, adequate compensation, and safe working conditions, whereas somewhat less stability of the perception of complementary values and access to health care. For the latter, a possible explanation could be related to experiences related to this very dimension that are more likely to have been experienced after two years. The fact of having had a positive or negative experience could indeed influence this perception. With regard to the perception of complementary values the explanation can be found in the relationships between variables that emerged in the model and are discussed below. Indeed, the analysis of the reciprocal effects of the five decent work dimensions highlighted that two dimensions of decent work are particularly relevant, since they are linked in time, for apprentices: safe working conditions and complementary values. In fact, complementary values seem to mediate the relationship between safe working conditions and adequate compensation

perception. In particular, the link between the dimensions of safe working conditions and complementary values could possibly mean that being able to benefit from secure working conditions would then allow the person in the future to focus on elements of major importance, such as the presence of a complementarity of values between him/herself and the work mission (complementary values dimension). If the dimension of safe working conditions appears to be more basic in terms of needs, the importance of complementary values as an indicator of decent work would seem to occur after the first one has been achieved.

Another possible explanation could lie in the fact that perceiving the company where one works is careful to provide safe working conditions could increase the employee's perception of having personal values in line with organizational ones. Moreover, it resulted that complementary values perception at T1 positively predict the dimension of adequate compensation at T2. Therefore, considering the presence of complementary values as important in defining decent work in the first place would then allow the person in the future to appreciate the dimension of adequate compensation.

#### *5.5.5 Decent work and job satisfaction*

Decent work perception is lower in the second year. Instead, job satisfaction tends to be higher in the second year than in the first. Moreover, in the SEM model the link between the two variables was non-significant. These findings appear to be in contradiction with our hypothesis and with what previous literature states (Blustein et al., 2016; Nam et al., 2019; Wang et al., 2019), i.e., that job satisfaction is one of the outcomes of decent work. Probably, the fact that this is a sample of apprentices, just entering the labor market, may explain the differences in our results comparing with previous literature where data were collected in samples of adult workers. The observed increase in job satisfaction may be explained by the fact that apprentices, during their first year, are still at the beginning of their professional identity development phase as well as tending to have a lower knowledge of the technical skills of the job they are training for. A higher satisfaction will therefore be reported in the second year when professional identity is more developed and technical skills more successfully managed: both inevitably lead the apprentice to greater job satisfaction (Stalder, 2017).

Thus, for apprentices, other variables that have been highlighted as important for job satisfaction in adults, such as relations with colleagues and supervisor and occupational self-efficacy (Lent & Brown, 2006, 2008), might be more important than the perception of decent work in influencing their job satisfaction.

#### *5.5.6 Practical implications of the study*

Concerning practical implications, this study suggests that taking NWOs into account during career guidance at middle school could help increase job satisfaction later on. Indeed, the more the profession chosen is in line with personal interests and values and permits for a balance between work and personal sphere, the more future job satisfaction will be high. This might be even more important for women and women, who, as highlighted in this study, have more personal and community oriented NWOs than men and men. Considering this aspect when choosing a profession could subsequently moderate the negative effect found in this study of a personal NWO on job satisfaction.

Furthermore, it is important to consider NWOs as functional to people's future well-being (Barnet, 2008). First, in line with the transition to adulthood, it is important that people have the opportunity (but not the obligation, of course) to develop an increasing orientation towards starting a family of their own. In this sense, our study highlighted how the perception of decent work enables the development of a family NWO and thus further emphasizes the importance of training companies meeting the necessary requirements to be able to offer suitable working conditions. Monitoring the learning and working environments of apprentices would make it possible to ensure that these aspects are respected. Second, the development of a personal life NWO, especially in young people, should not be hindered by a family NWO. Although a person's type of NWO may be particularly linked to his or her personality and personal interests and goals, it would be important to provide the necessary supports so that one type of NWO does not exclude another. At the very least, it would be important to check that these aspects are not hampered by working conditions.

Finally, the study shows that two dimensions of decent work are particularly important for apprentices, as they positively influence the perception of other dimensions. These are safe working



conditions and the perception of complementary values. In the context of career guidance in middle school, it would therefore be important that these aspects were also taken into account, first, when choosing a profession, and second, when looking for a training company with which to stipulate an apprenticeship contract. The more the person's needs in relation to these aspects are met by the profession and the company, the greater the possibility that the person will develop a sense of belonging to the company thanks to an ever-better perception of the complementarity of values and be satisfied with the salary aspects.

#### *5.5.7 Limitations of the study and future directions*

The study has limits that should be considered when interpreting the results and that might indicate some future research lines. A first limitation of this study concerns the low reliability of the Nonwork community service orientation subscale. Future studies might consider using a more reliable scale to assess this variable. Second, we had the possibility of achieving only two data collections. A third data collection at the end of the last year of apprenticeship would also have made it possible to study the evolution of the variables considered throughout the whole course of the apprenticeship and would have made it possible to further study the relationships between the considered variables. A three-wave study would have permitted to better assess the mediation's relationships emerged in this study. Thus, future studies might examine the relationships between variables highlighted in the present study through a more extensive longitudinal design. A third limitation is the relatively small sample size, A larger sample of apprentices would have permitted to also consider some moderators, as gender. A third limitation of this study is that this research involved adolescents in a specific region of Switzerland, which has a specific labor market and social reality. We assume that our results can be generalized to similar contexts, where the VET system is similar. However, comparative longitudinal studies involving adolescents in different countries might be useful to assess the generalization of our results to apprentices in similar and different social and economic contexts.

Finally, although no direct effect of decent work on job satisfaction was found, future studies might further investigate possible mediators of this relationships, such as work fulfillment or life

satisfaction (Duffy et al., 2016). Lastly, future studies could include the variable of satisfaction with the training, which would indeed seem to have an impact on decent work. In this regard, Duffy et al. (2022) have recently show that decent education predicts decent work.

## 5.6 Conclusions

In conclusion, the results of this study highlighted the strong relationship that exists over time between personal life NWO and job satisfaction, and between decent work and family NWO in a VET system that involves an alternation between school and work. The importance of safe working conditions and of perception of complementary values to predict better decent work perceptions in the following school years also emerged. All these aspects should be considered in the context of career guidance in middle school, especially when choosing a profession and a training company.

## 6 General discussion

In the thesis introduction, the importance of professional and life well-being during apprenticeship program was highlighted. Indeed, for an apprentice in training good job and life satisfaction and low occupational stress are precursor to a successful and positive future career development. Hence, the aim of this study was to understand which factors influence apprentices job satisfaction, life satisfaction and occupational stress. In addition to individual factors that determine a state of well-being for apprentices (nonwork orientation, occupational self-efficacy, and career adaptability) some factors related to the context were included (P-E fit, job control, decent work). In particular, the construct of decent work permits to also consider the apprentices' appreciation of the context where they train. Decent work was considered to partially mediate individual factors, those related to the context and the wellbeing indicators included in this thesis (job satisfaction, life satisfaction and occupational stress). In addition, the influence of gender and tenure on the previously described relationships was studied. In Chapters 2 through 5, are exposed 2–3 papers that were published, ~~1 paper just accepted~~, and 1 paper under review. These studies allowed for the assessment of models of interaction between the considered variables and their influence on job and life satisfaction and occupational stress. In addition, the qualitative study conducted on the concept of decent work (Chapter 2) among some vocational guidance and career counselling specialists made it possible to deepen the understanding of what decent work is and what resources (individual or contextual) may help to achieve it.

In this final part of the thesis (Chapter 6), the results that emerged in the studies that are presented in Chapters 2 through 5 are globally discussed considering the literature on the relationship between specific variables presented in the introduction (Chapter 1) and in the specific papers. Firstly, it was discussed the predictors of apprentices' wellbeing (Chapter 6.1). The impact of P-E fit, (Subchapter 6.1.1), of proactivity, occupational self-efficacy and career adaptability (Subchapter 6.1.2) and of NWO (Subchapter 6.1.3) on the well-being, understood as life and job satisfaction and

absence of occupational stress, of apprentices was analyzed. Secondly, in Chapter 6.2, the importance of decent work at workplace and in life was emphasized. Subchapter 6.2.1 discussed the concept and meaning of decent work, what it is, how it is defined and what are the resources/means to achieve it. In subsection 6.2.2, it was discussed the variables that predict access to decent work. Subsequently, the impacts of variables such as gender and tenure (Chapter 6.3) on the relationships between variables previously explained were analyzed. After, it was discussed some methodological limitations of the study (Chapter 6.5). Then, the impacts on practice of the results achieved in the performed studies (Chapter 2, 3, 4 and 5) were discussed and reported and in addition it was made several suggestions for future studies which focused on apprentices' wellbeing and decent work perception (Chapter 6.6). Finally, I provided brief concluding remarks about the study (Chapter 6.7).

## 6.1 Antecedents of apprentice's well-being

### *6.1.1 The role of person-Supervisor fit and person-group fit in predicting job and life satisfaction*

As expressed in detail in Edwards' (1998) theory (Subchapter 1.3.2), the higher the fit with the environment is, the more the person will be in a positive state of well-being both at work and in life. In Chapter 4, the P-E fit, in the sense of P-Supervisor fit and P-Group fit, was included in a model that attempted to predict the apprentice's job and life satisfaction in addition to other variables such as occupational self-efficacy, proactivity and decent work. In particular, the P-Supervisor fit, and the P-Group fit were considered in this study as indicators of social support at the workplace.

The results, as already expressed in Chapter 3, confirmed the existence of an indirect positive influence of the P-Supervisor fit and the P-Group fit on job satisfaction through the perception of decent work. This means that, considering these two types of fit as indicators of social support at the workplace, an apprentice who has a certain similarity of values and character with his or her colleagues and superiors will tend to see his or her work as more decent, which, in turn, will make him or her more professionally satisfied.

The effect of social support, understood as P-Supervisor fit and the P-Group fit (see Chapter 3) on life satisfaction, is indirect: in fact, it passes from the perception of decent work, which, in turn, influences job satisfaction, which, for its part, positively influences life satisfaction. Regarding the relationship between social support and life satisfaction, a similar result was also found in some previous studies. For example, Marcionetti and Castelli (2022) showed that social support at work influences life satisfaction only through job satisfaction. In general, social support at work influences job satisfaction whereas social support in life impacts life satisfaction (Kasprzak, 2010; Young, 2006). Therefore, this relationship between social support and well-being could be explained through the very nature of the two variables themselves, i.e. whether they relate to the work or professional sphere.

The social aspect, understood as both perceived support and similarity to others in terms of values, characters and interests, was mentioned also by vocational guidance and career counselling specialists (see Chapter 2) as an important aspect of decent work definition. The study described in Chapter 3, however, suggests that the fact of perceiving social support (from colleagues and superiors) at the workplace should be considered as a new aspect, compared to the PWT reference model (Duffy et al., 2016), which predicts a higher tendency to define one's work as decent. This direct impact of social support on decent work is a relatively new finding: in fact, in previous studies the impact of social support on decent work was only indirect. For example, in Song and Lee's (2023) study, social support, operationalized through the variable of marginalization (low vs. high), impacted work volition, which in turn influenced decent work. Masdonati and colleagues (2022) also found in their study that social support operated as a moderator that buffered the strength of the relationship between predictors and outcomes of school-to-work-transition, outcomes that include decent work.

In conclusion, the studies conducted in this thesis have provided new insights into the P-E fit contribution in determining the apprentice's well-being. In fact, it would appear from the findings that fit with one's environment, understood at the social level (P-Supervisor fit and P-Group fit), would impact professional and life satisfaction by creating a positive environment for professional learning and positive experience of the performed job.

### *6.1.2 The role of proactivity, occupational self-efficacy, and career adaptability in predicting job and life satisfaction and occupational stress*

In addition to the influence of context-related variables, the studies conducted and described in this thesis have highlighted how variables more related to the individual, such as proactivity, self-efficacy, and career adaptability, have an influence on job and life satisfaction and occupational stress.

In Chapter 3, the results showed that apprentices with a proactive personality tended to be more satisfied at work and, indirectly, in life. The established link between proactive personality and job satisfaction is congruent with previous literature: the proactive behavior leads to greater satisfaction at work (Wanberg & Kammeyer-Muller, 2000; Wang & Lei, 2021). Nevertheless, in

contrast with previous studies (e.g., Greguras & Diefendorff, 2010), the link between proactivity and life satisfaction did not appear to be significant. However, it may be assumed that proactivity is important for the apprentice's well-being. In fact, an apprentice who is able to act on his/her environment, who anticipates his/her needs and takes action, thus demonstrating proactive behavior, will be more likely to be satisfied at work and thus, indirectly, in life.

Instead, occupational self-efficacy had no significant influence on the well-being variables. It would therefore seem that for apprentices, working on their self-efficacy perception has no influence on their perceived well-being at work or in life in general. This result appears to be in contrast with previous literature (Bargsted et al., 2019; Maggiori et al., 2016; Marcionetti & Castelli, 2022; Schyns & von Collani, 2002) which shows, on the contrary, the existence of a positive impact of occupational self-efficacy on job satisfaction. The previous literature, however, observed the existence of this link on samples of adult workers, not in apprentices. In fact, most apprentices are adolescents, and it may be assumed that feeling effective, being able to do one's job is not yet such an important aspect of one's identity to have a positive impact on job satisfaction. Occupational self-efficacy, therefore, could develop a major impact on job satisfaction over time, growing in tandem with the individual's growth and professional identity development.

On the other hand, Chapter 4 shows how career adaptability influences well-being, understood as the absence of occupational stress, indirectly via decent work: an apprentice with a high degree of career adaptability would therefore be more likely to consider his or her work as decent and thus in turn the more his or her work is considered decent the less professionally stressed he or she will be. The indirect relationship between career adaptability and occupational stress is in contrast with what previous literature has shown (e.g., Fiori et al., 2015; Rudolph et al., 2017). According to these authors, having a high career adaptability directly decreases perceived stress at work. This result was confirmed in more recent studies (Hassanie et al., 2022; Zhuang et al., 2021) in which career adaptability diminished occupational stress and the link was made even more important by the pandemic context of COVID-19. It can be assumed that the fact that participants of this study are



apprentices, and not adult workers, as in the other studies, may partly explain this result. In fact, it can be assumed that because they are adolescents (in most cases), their career adaptability has not yet developed, as they are in their first professional experience. Another explanation, however, it can be explained by the variable of decent work, which was not included previously. Regarding the relationship between career adaptability, decent work and occupational stress, please refer to subsection 6.2.2 for more details.

Overall, therefore, the results of the performed studies indicate that improving proactivity and career adaptability might directly (for proactivity) and indirectly (for career adaptability) influence professional well-being, understood both as life satisfaction (Chapter 3) and as occupational stress (Chapter 4). Furthermore, the fact that occupational self-efficacy has no impact on the well-being variables (Chapter 3) is an interesting result. In fact, even though occupational self-efficacy is important for job performance (Afzal et al., 2019; Çetin & Aşkun, 2018), it does not appear to be directly related to well-being at work, which, on the other hand, in apprentices appears to be particularly influenced by personality and relational variables. The fact that occupational self-efficacy is not directly related to well-being in the workplace can be explained by assuming that, as apprentices, they are supposed to learn and are not expected to perform as professionals.

### *6.1.3 The longitudinal impact of nonwork orientation on job satisfaction*

In addition to the findings concerning the influence of individual variables on well-being, the longitudinal impact of the NWO variable on job satisfaction, which emerged from the study in Chapter 5, merits a separate discussion. Indeed, it was found that the nonwork sphere plays an important role in determining a person's well-being and this is congruent with the literature on work-life balance (Fotiadis et al., 2019; Wong et al., 2021; Zheng et al., 2015). Well-being, in fact, is not only determined by work-related and personal variables but also by how they balance and find their place in a person's life. Specifically, it has emerged (see Chapter 5) that the more a person tends to attribute importance to the personal sphere, to his or her interests and hobbies (nonwork personal life orientation), the less he or she will tend to be satisfied at the workplace. This result, placed in the

reality of an apprentice, could mean that the more the implication towards one's personal sphere is high, the fewer resources will be given towards the work sphere, since the person will therefore have attached low importance to it. The lower importance given to the work sphere in one's life may therefore be a reason for lower job satisfaction.

Two other types of nonwork orientation, family and community service orientation, influence the relationship between nonwork personal orientation and job satisfaction. In fact, the results showed that the two NWOs positively (the nonwork community service orientation) and negatively (the nonwork family orientation) predict the variable of nonwork personal life orientation, which, in turn, as explained above, is supposed to negatively influence job satisfaction. The indirect impact of these two NWOs on job satisfaction therefore further emphasizes how it is appropriate for an apprentice to balance and monitor his or her orientation towards his or her personal sphere with a view to encouraging greater job satisfaction. Knecht and colleagues (201) highlighted, in fact, that the personal sphere, leisure, also plays a role in determining well-being. In their longitudinal study, they also demonstrated that conflict and facilitation with the leisure domain are also associated with subjective well-being and remain highly stable over the course of a year in the lives of young and middle-aged adults.

As Aristotle said, "in medio stat virtus": the development of one's own personal sphere and interests is certainly positive for the individual well-being (Gillet et al., 2022; Lewis & Purcell, 2007) but the results of the study (Chapter 5) have shown that, especially for apprentices, a strong orientation to this sphere of life could be negative for perceived job satisfaction. Globally, therefore, it emerged from the study (Chapter 5), that considering NWO is important during a career counseling interview, with an adolescent, in the context of choosing a specific apprenticeship.

## 6.2 Decent work and apprentices' work and life experience

The studies conducted and described in the previous chapters have shown that decent work perception is a fundamental determinant of apprentices' well-being. Specifically, studies described in Chapters 3 and 4 show that decent work perception directly affects apprentices' well-being. In Chapter 3, it resulted that perceiving a work as decent has a positive and direct impact on job satisfaction, which in turn has a direct effect on life satisfaction. In Chapter 4, it also emerged that the perception of decent work impacts well-being by reducing perceived occupational stress. Adding the results of the two studies, it could be inferred that perceiving a work as decent makes apprentices feel more satisfied (Chapter 3) and less stressed at the workplace (Chapter 4) and that this, indirectly, positively affects their life satisfaction (Chapter 3). These results are aligned with studies' results based on the PWT model of decent work and its outcomes (e.g., Duffy et al., 2019; Masdonati et al., 2019; Zammitti et al., 2023).

Therefore, the consideration of decent work as a determinant of apprentices' well-being, allows us to increase knowledge about variables that can play a role in determining the positive or negative value of apprentice's work and life experience. Perception of having safe working conditions, having access to an adequate health care system, receiving an adequate compensation, being able to benefit from sufficient rest and free time and have a complementarity value with their job may help people to experience well-being both at the workplace and in life in general. Decent work is a concept that only quite recently has been deepened in psychology by the literature on work and career. In addition, its antecedents and consequences are still under-studied, especially among the specific population of apprentices. For this reason, the results of this study, in terms of decent work and its antecedents and outcomes, may constitute an added value to an area of research still growing and expanding.

### *6.2.1 Decent work: a concept currently still being developed and defined*

The current socio-economic environment, changing and precarious, combined with the COVID-19 pandemic, has raised significant questions about the nature of work and its multifaceted

role in the people's lives. Indeed, the person is confronted with the challenge of understanding how to "navigate" in this environment that is so uncertain and unpredictable. Therefore, the concept of decent work emerged as one of the specific dimensions of work and a particularly important aspect of organizational functioning and psychological/work-based well-being (Blustein et al., 2023). In fact, decent work is a construct that defines the basic attributes of a work, reflecting the ILO's four strategic objectives: "the promotion of rights at work; employment; social protection; and social dialogue" (ILO 1999, p.6). In the realized studies and for the most part to this day in vocational psychology, the PWT model is used as a reference for understanding and analyzing the concept of decent work. In fact, as mentioned in the previous paragraphs, PWT built on the ILO's (2008) systemic focused Decent Work Agenda to define decent work at the individual level. In PWT, Duffy et al. (2016) defined decent work from the perspective of people's experiences of their own work lives across the previously mentioned five dimensions of work-place experiences. This definition complements the broader-based perspective advanced by the ILO, which defines decent work via macrolevels indicators. The conception of decent work and how it should be assessed is slightly different between PWT and ILO framework. Firstly, The ILO Framework Work Indicators covers ten substantive elements corresponding to the four strategic pillars of the Decent Work Agenda: employment opportunities, adequate earnings and productive work, decent working time, combining work, family and personal life, work that should be abolished, stability and security of work, equal opportunity and treatment in employment, safe work environment, social security, social dialogue, employers' and workers' representation. Differently, as explained in previous chapter, decent work is defined, according to PWT, through five indicators. A recent review (Blustein et. al., 2023) shows that decent work has been studied over the years at both the structural and the individual level, offering unique insights based on the differing perspectives. Studying the concept of decent work, at an individual level, in fact means examining what determinants are important for an individual to define a work as decent. These determinants may in fact vary from one individual to another, from one culture to another.

Based thus on this individual perspective, according to Blustein and colleagues (2023) different strategies/practical actions may also be implemented (e.g., job crafting, ideological practices, relational strategies, etc.) to improve the individual's experience. Instead, the study of the decent work concept performed with a structural perspective, according to the authors of the review, allows to analyze the macro elements that in a society, in a culture, determine the 'decent' of a work. The first perspective therefore focuses on a more psychological view of decent work; the second on a more socio-economic and juridical view.

The longitudinal study described in Chapter 5, investigates the decent work concept examining the reciprocal relationship among its five dimensions and specifically how some components of decent work tend to predict other components one year later. In fact, the secure work conditions component predicts the complementary values component and similarly the complementary values component predicts the adequate compensation component one year later. These findings suggest that approaching decent work by components may be interesting to offer greater individualized career guidance and counselling interventions. In fact, there are differences between individuals in weighing the importance of some components of decent work compared to others. Learning which component is important for an individual in a particular moment of life and knowing how this might have an impact in the future, might give insights to offer more suitable and targeted enterprise or counseling interventions.

The results of the study described in Chapter 2 offer a perspective on decent work that has been less studied: that of vocational guidance and career counselling specialists. In this study, compared to the PWT definition of decent work, it emerged that the interviewed specialists accord high importance to positive relations at work. Indeed, whether they are young apprentices or adult workers, having the chance to rely on positive relationships with colleagues and supervisors may help to give dignity to work. This result is important considering how effectively episodes such as turnover, burnout, and harassment at work are due to non-positive relationships and how these have deleterious impacts on enterprises and workers (Gosse et al., 2021; Madden et al., 2015; Prada-

Ospina, 2019). Therefore, working on the relationships between colleagues and superiors could be important for employers and employee's well-being.

Finally, it remains to be clarified, however, based on the result, whether positive relations at work are to be considered as antecedents/resources of decent work, as also expressed by earlier theories (see for example Lent and Brown's (2006; 2008) social cognitive model), or rather whether they are a dimension of it. In fact, the PWT definition of decent work already indirectly alludes to the presence of positive relations at the workplace. The component of safe working conditions in fact involves being able to benefit from safe psychological conditions at the workplace, thus indirectly, having good relations with colleagues and superiors.

### *6.2.2 Resources promoting access to decent work*

If decent work leads to well-being outcomes, then understanding how to obtain this type of work becomes crucial. As shown by all the regulation concerning work, access to decent work depends very largely to the conditions offered by the labor market and how Countries are able to regulate this market and work conditions. The results of conducted studies have allowed for an expansion of knowledge regarding the predictors of decent work, as well as the resources available to individuals to access it.

Firstly, as demonstrated by the results of the study described in Chapter 3, the quality of workplace relationships plays a significant role in determining whether the apprentices consider their work as decent. This is in line with previous literature that has shown that the quality of workplace relationships influences motivation (Jolli et al., 2021), performance (Adnan Bataineh, 2019), and well-being (Ali et al., 2021) and with studies conducted in Switzerland (Allidi, 2010) that show that low quality of relationships with colleagues or supervisors is one of the most common causes of early resignation of apprenticeship contract. In addition, Blustein et al. (2013) showed that being able to perceive a work as adequate depends on the fit. In case of poor fit, job satisfaction will be low, the sense of meaning will be low, and this might have an impact on the perception of a work being decent or not.

Proactivity and career adaptability are considered personal skills that, as indicated by the study results (Chapter 3 and 4), increase apprentices' tendency to consider their work as decent. The results regarding these two individual variables are congruent with the current context of flexible, ever-changing, and "borderless" careers (e.g., Arthur et al., 2005; Kundi, 2021; Wiernik & Kostal, 2019), which makes it even more important to be proactive and adaptive.

Therefore, these results suggest that the ability to impact personal environment and to be adaptable are two capacities that could help people to find a work that fulfill their needs, that is meaningful and thus that could be perceived as decent. An apprentice who is able to work on himself/herself and his/her environment, anticipating and predicting what is best for him/her and who realizes that adaptation during his/her career is essential to be 'successful', will have the attitude and the mindset that will lead him/her with more chances to work situations that he/she considers as decent. In relation to the possibility of taking action on the environment, the result related to the study in Chapter 4 also showed that job control effectively predicts the perception of access to decent work. The ability to organize one's work autonomously and have a certain degree of control increases the chances for an apprentice to consider their work as decent. In this regard, actions that encourage apprentice autonomy, while still respecting the necessary learning time for the training, could have positive effects on their perception of decent work and consequently on their well-being.

However, the question remains of how to support and achieve decent work. This topic has been addressed by Duffy and colleagues (2016) with their PWT model and by vocational guidance and career counselling specialists who were interviewed (see Chapter 2). Regarding the resources needed to access decent work, as already mentioned in the PWT reference model, soft skills emerged as valuable qualities that do not depend on acquired knowledge. They include common sense, the ability to interact with people, and a positive and flexible attitude (Vasanthakumari, 2019). In a world that is no longer predictable and constantly changing, having skills and abilities that are not fixed or specific to a particular work or life context is essential. These resources in fact may promote positive attitudes regarding one's current and future career. Being able to communicate with others at the

workplace, having a positive and optimistic attitude as well as being motivated by one's work leads to positive outcomes, in terms of both career success and individual well-being. Indeed, based on research that connects these soft skills to positive work-related outcomes (Ellena et al., 2021; Remedios, 2012), it can be assumed, as also stated by specialists, that individuals with numerous soft skills will be more likely to engage in decent work. It is important to specify, however, that since soft skills are still subject to definitional work, it remains to be defined which are the most important soft skills that allow access to decent work. In conclusion, working on pairs social support, the quality of social relationships with colleagues at workplace, the margin of maneuver (job control) available to an apprentice, as well as encouraging career adaptability, and possibly organizing interventions to develop soft skills, could help apprentices perceive work as decent and, consequently, influence their well-being.



### 6.3 The role of gender, tenure, and organization size

Regarding the previously mentioned relationships between the variables impacting well-being, including decent work, potentially interesting results emerged in relation to the action of certain socio-demographic variables such as gender, tenure, and organization size. The performed studies, described in Chapters 3, 4 and 5, have indeed shown that the fact of being a man or a woman, of being in the first or last year of an apprenticeship as well as the fact of working in a micro, medium or large enterprise, may give origin to certain differences in the experience of apprenticeship.

Gender, as it is known, influences career choices (e.g., Oshodi et al., 2020; Rocha et al., 2020; Tandrayen-Ragoobur & Gokulsing, 2022). This horizontal segregation is also present in the sample examined in our study where the percentage of women in apprenticeships as hairdressers or medical practice assistants, traditionally more feminine professions, is higher. Instead, in our sample, men are more present in traditionally more masculine apprenticeships such as bricklayer or plumber. In addition to this difference in career choices, differences emerged in relation to certain variables influencing the training experience. In particular, being man or woman has an impact on perceived occupational stress (see Chapter 3). Overall, women, on average, appear more stressed at work than men. This result is in line with other previous studies (e.g., Ahuja et al., 2021; Costa et al., 2021) in which female gender is associated with higher stress level. In the context of an apprenticeship this result may be due to different reasons. For example, some studies suggests that women in the workplace feel they have to give more than their male colleagues in order to consider themselves and be considered as equal to their male colleagues (see Parlak et al., 2021; Viertiö et al., 2021), thus causing them greater perceived occupational stress. It is also possible, as showed by Kramer and Harris (2016), that men feel less legitimate in reporting stress because it goes against the stereotype. Moreover, even though there is a movement towards greater equality of roles in domestic life, the weight of managing family and work is still felt more by women (Bhende et al., 2020; Lakshmi et al., 2018): this certainly leads to more stress not only in life but also in the workplace.

Moreover, according to the result of the longitudinal study (Chapter 5) young female apprentices seem less family-oriented than their male colleagues. This result is interesting as it could be interpreted as an indication that young women today tend to start their careers thinking less about their future parental role. This might be a sign of a progressive role equity between men and women in the family tasks management.

Finally, there is a difference between men and women in the perception of decent work (see Chapters 3 and 5) with men scoring higher than women. If we look at the original PWT model, we see that two negative predictors of decent work are marginalization and economic constraints. In fact, according to the model, being on the margins of society as well as having economic constraints in one's life leads one to perceive one's work less as decent. Considering this, thinking of women as more often marginalized or with lower-than-minimum salaries (Kantamneni, 2020; Rashid et al., 2020), even in Ticino (Walker, 2022), could explain this lower perception of decent work compared to their male colleagues. This difference, in addition to not being attributable to a specific occupational category, leaves much to be questioned about the gap that always exists in occupational well-being between men and women.

A second socio-demographic variable examined in the studies is tenure, i.e., the year of apprenticeship. In fact, it emerged that being in the first or last year of an apprenticeship may have an influence not only, as can be assumed, on professional knowledge, but also on certain psychological variables. Firstly, it was found that career adaptability is lower in the first than in the last year (see Chapter 4). If, as mentioned above, career adaptability can be also seen as vocational maturity (Kirchknopf, 2020) then this result makes sense. In fact, it can be assumed that maturation occurs over time and that therefore, career adaptability is also greater in the final year of apprenticeship, as a result of greater work and life experience. In addition, in the perspective of finding a job after the apprenticeship the four career-adaptability's dimensions could become useful, and thus, be better brought into play when the transition to world of work time approaches. However, the advance of time is not only positive: in fact, it was found that perceived occupational stress during

the final year is higher than in the first year (see Chapter 4). This result may be explained by referring to the fact that in the final year apprentices may feel stress both due to the upcoming end-of-apprenticeship exams and since they are at the end of a pathway. Literature, in fact, tells us that during times of transition, perceived stress is greater (Akkerman & Bakker, 2012; Masdonati et al., 2010). The great uncertainty about one's future, typical of the adolescence age, as well as the precariousness and changeability of the current socio-economic environment, certainly cause more stress for the young apprentices.

The longitudinal study (see Chapter 5) also focused on the changes that occur during the apprenticeship course but compared the first and second year. Significant differences emerged for men who saw their job satisfaction increase from the first to the second year and their perception of decent work decrease. Concerning the first result, it can be assumed that the increase in job satisfaction from the first to the second year may be due to the development of a greater professional identity that goes together with greater technical knowledge and responsibility at the workplace. The fact that the decent work perception, contrary to expectations, decreases between the first and second year, suggests that decent work and well-being in the workplace, for men in this study, do not necessarily go together. With respect to this decrease in the perception of decent work between the first and second year, a certain number of hypotheses can be made. The fact that they do not consider the salary to be adequate for their professional skills (matured in this second year), the fact that they want to better reconcile work with school and private life, or the fact that they know they will have to leave the organization in one year's time (which will not be able to keep them at the end of their apprenticeship) might be possible reasons for this decrease in the perception of decent work between the first and second year. Future studies could in fact attempt to understand what causes this decrease in the degree of perceived decent work between the first and second year of an apprenticeship. In fact, according to recent longitudinal studies (see for example Dobrow and Ganzach, 2017) job satisfaction tends to decrease with tenure: it is therefore possible to assume that this decrease is also the same for decent work.

Hence, it is possible to conclude that considering the moment in which the apprentice is in respect of his or her training (i.e., tenure) is important for future studies and also in practical interventions as it would appear to be a variable that influences his or her experience in respect of training.

Finally, a third examined variable is the organization size. In Chapter 4, it was found that the organization size impacts the consideration of decent work and perceived stress. It emerged first, that apprentices working in micro enterprises are more likely to consider their work as decent comparing to apprentices who are working in small, medium or large enterprises. This is probably due to the fact that in a micro enterprise, a family atmosphere is more likely to exist, which, on the one hand, increases the perception of decent work but, on the other hand, increases stress. This increased stress in small working environments may be caused precisely by the fact that in such a small and familiar atmosphere, demands and expectations may be higher as well as, in the case of non-positive personal relationships, episodes of social stress may arise. Working in a large enterprise, similarly, leads the apprentice more to consider their work as decent. This is probably because in a large enterprise there are more likely to be higher bonuses and better working conditions than in a small enterprise. This hypothesis, however, remains to be tested as the existing literature does not position itself firmly on the differences between small and large enterprises in terms of bonuses or working conditions. Indeed, the territory in which these enterprises are located plays a key role: in the Canton of Ticino, for example, there are no large metropolises unlike, for example, the Canton of Geneva or the Canton of Zurich.

In conclusion, the results presented on the influence of gender, tenure, and organization size show how important it is to consider these variables when analyzing the well-being of apprentices. Considering them and their influence also makes it possible to target interventions more closely.

## 6.4 Limitations of the study and future research directions

The results published and/or presented in this thesis have some limitations that have been partially mentioned in the studies that were presented in Chapter 2 through 5. For the first two papers (Chapter 3 and 4), the cross-sectional nature did not permit conclusions concerning the causality of the relationship between variables. Only one paper had a longitudinal research design. This is because the time required to write the thesis (4 years) and the time to edit and publish in a scientific journal, did not allow for the addition of a further longitudinal analysis, in addition to the existing one, described in the paper presented in Chapter 5.

Secondly, it is important to note the presence of some possible sources of bias concerning the choice of including certain scales in the different studies (Chapters 3, 4 and 5). The Nonwork Orientation Scale (Hall et al., 2013) was conceptualized and validated in the United States where society and culture are, in some ways, different from Switzerland. For this reason, it was necessary to change the term 'community' with 'circle (friends, family, relatives, schoolmates, etc.)' for the items relating to the measure of non-work community service orientation. In fact, the term "circle" is a concept which is closer to what the apprentices felt and experienced. Despite this change of term, the meaning of the individual item has not been altered. However, to be sure that the scales are still comparable, a cross-cultural validation should be performed.

In the Decent Work Scale (Duffy et al., 2017) it should be noted that the 'decent work' component of 'access to health care' has items related to aspects that are closely linked to a more American health system organization. In Switzerland, treatment and access to the healthcare system, as in the US, is privately funded (supported by various medical insurances) and not centralized in the state. For 28 apprentices, residing in neighboring Italy, where the healthcare system is managed by the state, it was not possible to respond to items related to a different healthcare system. It should also be noted that despite the choice to use relatively short scales, the final questionnaire was lengthy. In fact, on average, apprentices completed the questionnaire in about 35 minutes, while others took

longer (45-50 minutes). This certainly caused some doubts concerning the reliability of some answers, which is the reason why, as explained in Subchapter 1.5, some of them were removed.

Regarding the reliability of answers, in the longitudinal study: only the answers of the apprentices who participated in the two data collections were considered. In fact, a percentage of apprentices who encountered school or work difficulties during their first year had to repeat the year or terminate their contract and were therefore not included in the longitudinal study (Chapter 5). It was therefore not possible to include all apprentices who had completed the questionnaire at T1, thus unfortunately reducing the sample size for the longitudinal study.

Moreover, the sample consisted of apprentices from a particular and under-studied region of Switzerland, the Canton of Ticino, which, apart from the language spoken, Italian, which is different from that of the other regions, has a school culture that is more inclined towards high school and academic studies and less towards vocational training compared to the majority of the other Swiss cantons (Marcionetti, 2023). Thus, the studies described within the thesis (Chapters 3, 4 and 5) allow the generalization also to this region of certain results that have previously been supported by the literature on apprentices in Switzerland. However, the contextual specificity of Canton Ticino should be considered before generalizing the results to other context and cultures. The Ticino context, with its small and medium-sized companies, and where the medium salary is the lowest at national level (Bigotta & Giancone, 2020), certainly plays a role on the perception of certain variables linked to the professional sphere, and not least on the component of adequate compensation relating to decent work. Future research could go beyond this limitation by expanding this sample to include an equal number of apprentices from both German and French-speaking Switzerland. In this way, comparing the results obtained on the three groups of apprentices from different Swiss regions could go over the regional specificity limit.

Despite these methodological and theoretical limitations, the results of the studies described in this thesis may be considered as an added value to the research in vocational orientation and a starting point for future investigations and research on the still relatively unaddressed topic of

apprentices' well-being. As already stated, the results of the conducted studies may also be seen as starting points for future research. Firstly, concerning decent work, it was found in the study described in Chapter 3, the effect of social relations on decent work perception. It remains to be clarified, however, whether these social relationships in the workplace are an antecedent of decent work, as said by some theories such as that of Lent & Brown (2006; 2008), or whether they are a dimension of it, as said in part by PWT since they are included in the first dimension of the safe working conditions. This is certainly an interesting aspect that future studies could deepen and investigate. Secondly, since these studies concerned the first two years of VET education, it would be interesting to include a third or fourth wave to see how the decent and satisfying experience of the first two years impacts post-apprenticeship choices. Similarly, it could be investigated in the future whether there are differences in the experience of VET education between those who have just finished compulsory school and those who have already completed a previous apprenticeship. In fact, it could be assumed that well-being may be greater for this second group of individuals as it would be a requalification that, normally, is done at a more advanced age when awareness of oneself and one's interests and needs is greater (Barnová et al., 2022; Konstantinovna, 2022). Moreover, it would have been interesting to study the linearity of the training paths of these apprentices and how they are impacted by the positive experience of VET education. How many apprentices not satisfied with their job leave the apprenticeship between their first and second year? How many apprentices who do not consider their work as decent abandon their apprenticeship? These are questions that future research could answer. Finally, as already mentioned in the specific articles, these are studies conducted on Swiss apprentices in a canton, the canton of Ticino, with a specific socio-economic and geographical reality that differs from the rest of Switzerland. Therefore, in the future, being able to replicate the studies conducted on a sample of apprentices from French-speaking or German-speaking Switzerland would make it possible to study possible regional differences.

## 6.5 Practical implications

The results obtained from the study of apprentice well-being not only constitute an added value to the research field concerning careers, well-being and VET training but also provide interesting insights for future research and for the implementation of practical interventions. One of the main objectives of this thesis was to better understand the process underlying apprentices' well-being to suggest future directions for improving their working, training, and general living conditions.

Firstly, the results suggest that decent work and well-being are strongly linked. The fact that decent work leads to well-being for an apprentice provides a lot of opportunity for theoretical discussion but also for practical actions. In the same way, a decent work that does not fit, should not lead to work satisfaction and thus well-being. In this sense, one potential theoretical implication, for future research, could be to better articulate fit and decent work theories.

Since obtaining decent work leads to well-being, the variables influencing decent work, which in turn indirectly influence well-being, as well as the variables directly impacting well-being deserve important consideration. Thinking about the practice, one can consider that a decent work approach by components can lead to better individualized career counseling practices. For example, in the case of choosing an apprenticeship after finishing middle school, it is important to understand what aspects of decent work is important to a person. In the case, for example, of a young "elite athlete," the aspect of free time and rest will be important. Therefore, decent for him/her will be a work in which he or she could be able to have rest but especially free time to dedicate to his/her sport. Again, if for a young man/woman, it is important in his/her apprenticeship to be in contact with people and to feel that he/she is useful, the aspect of complementarity of values between him/herself and the work he/she is seeking will be important.

Considering individual variables such as proactivity, career adaptability and NWO, it can be assumed that intervening on these could improve the apprentice's well-being. Regarding proactivity and career adaptability, some interventions have already been made in enterprises to improve these two skills (Green et al., 2020; Strauss & Parker, 2018). It would be interesting to imagine doing the



same for apprentices. These actions could involve either interventions during interviews with a guidance counsellor or actual in-company training in the same way as with adult workers (Oprea et al., 2019; Otto et al., 2019). In addition, considering the apprentice, who for the most cases is a teenager, and the fact that he or she must balance school, work and private life, the importance of the NWO in terms of well-being becomes meaningful. In fact, the consideration of the importance given by the apprentice to his family, hobbies and social group also allows, with a view to vocational guidance, to address the apprentice towards apprenticeship that best meets his needs. For example, it can be assumed that for an apprentice who's prevailing nonwork orientation is that of the family sphere, it will be important not only to have the time in one's work to devote to it but also, probably, to find in one's profession values that reflect those of the family.

A further important result, from which potential interventions could be inspired, is the influence of the feeling of job control on decent work and thus, indirectly, on well-being. The fact that perceiving that one has some control in one's daily work routine is important for an apprentice to define a work as decent and thus to be able to be satisfied (in life and at work) leaves ample space for intervention possibilities, mainly at work. Kälin and colleagues (2000) also showed in their study of Swiss apprentices how important for well-being during the first year of VET is the degree of perceived control, even against stressors. Therefore, monitoring the degree of control perceived during apprenticeship training by the apprentice and organizing meetings between trainer and apprentice to implement it if it does not conform to what the trainee perceives, while always respecting the rhythms of learning, could be important in view of greater well-being during VET training. Similarly, as a preventive measure, during the guidance counselling interviews, when choosing the type of apprenticeship, it could be useful to investigate how important it is for the person to have some control and thus be able to move towards the profession that best suits his or her needs and values. Lastly, a final important finding that may provide inspiration for possible actions and interventions is the influence of social relations on decent work perception and well-being. The results in fact suggest that this aspect should not be underestimated and therefore periodically monitoring the working

environment by questionnaires or interviews may help the apprentice to enjoy well-being in the workplace and in life in general.

## 6.6 Concluding remarks

In this thesis, an analysis was made to investigate in which way some individual and contextual variables influence apprentices' professional and life well-being.

In terms of the antecedents of well-being, it was observed from the results that adaptation to one's environment, understood on a social level, has an impact on occupational and life well-being. Therefore, a positive environment is important for professional learning and a positive job experience. Second, given the impact of certain variables on work and life well-being, it is useful to think about practical interventions to improve proactivity and adaptability of apprentices. Moreover, the importance of considering the NWO during a career counselling interview has been showed. In addition, it is important to highlight, based on the results of this thesis, the importance of decent work in qualifying apprentice's job and life satisfaction.

Finally, this thesis work may be considered as a starting point and inspiration for future investigations into the relationship between decent work and well-being of apprentices, thus highlighting how experiencing decent work from the first years in an enterprise is important for the future well-being both of young and adult people.

## 7 References

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