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WHEN YOU CAN'T STOP THE WAVES: NAVIGATING CAREER INSECURITY IN THE EARLY CAREER STAGE

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Dissertation Abstract

Uncertainty has long been viewed as an inherent nature of individuals' careers (Trevor-Roberts, 2006). The concept of career insecurity essentially considers the increasing uncertainties in the modern work environment and its significance to a person's future career development. In light of the risks and precarity that young people face in the present labor market, this dissertation focused its research on the career insecurity of early career individuals. The overarching aim of the three studies that were conducted in this research project was to examine the adaptiveness of the resources and strategies that early career individuals employ to cope with their career insecurity.

Study 1 of this dissertation explored the importance of psychological and social career resources in the perceptions of career insecurity among university students. Specifically, this study identified four profiles of career resources among university students and the differences between these profiles with regard to career insecurity and employability. The results found that the two profiles with high levels of psychological resources observed lower career insecurity in comparison to the other two profiles with low levels of psychological resources. Furthermore, the one profile that observed both high levels of psychological and social resources reported the highest level of employability.

Study 2 and Study 3 of this dissertation focused on testing a conceptual model of coping with career insecurity. The model's general aim was to extend the previous research findings on the negative relations between career insecurity and individual outcomes (i.e., psychological wellbeing, subjective career success; Spurk et al., 2022). Specifically, the model hypothesized the significant associations between career insecurity and coping strategies (i.e., approach and avoidance), which are expected to mediate the relationships between career insecurity and individual outcomes. Furthermore, the model hypothesized the

moderating role of a personal resource (i.e., ambiguity tolerance) that can facilitate or limit the relationships between career insecurity and coping strategies.

In testing the model, Study 2 used an overall score of career insecurity and measured ambiguity tolerance as two dimensions (i.e., preference and aversion to ambiguity) in a sample composed of Italian participants. Whereas Study 3 tested the model using four dimensions of career insecurity and focused on aversion to ambiguity as the moderator in a four-country sample. Both Study 2 and Study 3 found career insecurity to be positively related to avoidance coping and negatively related to approach coping. Furthermore, the mediating roles of approach and avoidance coping were observed in the relations between career insecurity and the two measured outcomes (i.e., psychological wellbeing, subjective career success). Ambiguity tolerance was also found to play a moderating role in the positive relationship between career insecurity and avoidance coping. In particular, Study 2 found that preference to ambiguity weakened this relationship, whereas Study 3 found that aversion to ambiguity strengthened this relationship. Study 3 also performed cross-country comparisons and found significant differences between Italy, Norway, Bangladesh, and Indonesia in relation to early career individuals' career insecurity, ambiguity tolerance, and coping strategies.

The general findings of this dissertation offer meaningful contributions to the growing field of research on career insecurity by highlighting the significance of both personal and contextual resources, as well as the importance of early career individuals’ coping responses. In brief, the insights gained from this research project can serve as a stepping stone to help address early career individuals’ career insecurity and sustain their endeavors as they navigate the uncertainties of the future world of work.

Keywords: career insecurity, coping, resources, psychological wellbeing, subjective career success

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CHAPTER 1

General Introduction

General Introduction

Modern career progressions have been described with decreasing linearity and stability due to the uncertainties brought forth by environmental factors such as economic crises, globalization, and technological advancements (Callanan et al., 2017; Trevor-Roberts, 2006). The rise of non-standard work arrangements and flexible contracts in the modern labor market has also led to the growth of non-standard career paths (Lorquet et al., 2018). Considering the high levels of uncertainty that characterize the newer career paths, the concept of career insecurity has grown to become a fundamental topic of career research (Alisic & Wiese, 2020). Mauno and colleagues (2023) described career insecurity as an "individual's overall concern regarding the attainment, continuity, and stability of one's career or employment" (p. 1). With reference to the individual's uncertainty about their future employment and career prospects over their life course, this construct can touch on worries about entrance to the workforce, job loss, and unemployment (De Witte et al., 2016; Mauno et al., 2023; Spurk et al., 2022). Previous studies have highlighted the topic's relevance in the context of contemporary careers (e.g., boundaryless careers; Colakoglu, 2011), especially since the responsibility of managing the risks and insecurity caused by increasing labor market flexibility has been shifted to workers (Standing, 2011). In view of this trend that modern careers will continue to become more insecure as the gig economy and digitalization grow more prominent in society (Spurk et al., 2022), this dissertation deemed it important to investigate the topic of career insecurity within the context of the early career stage.

Early career individuals are considered highly vulnerable to the adverse conditions of the labor market (Kalleberg, 2020). Their specific career stage involves individuals entering the labor market, exploring different career opportunities, and establishing themselves in the workforce (Cohen, 1991; Loughlin & Barling, 2001; Super et al., 1996). But with smaller social network connections and less information and economic resources to support their job

search, early career individuals risk entering the labor market from an outsider position, relatively lacking work-relevant skills and experience (Gangl, 2002; Kalleberg, 2020). Further considering their age and contractual status, early career individuals are at a disadvantage when negotiating employment relationships (Simms, 2019). The flexible nature of modern career paths brings implications of increased precarity, especially for young people (Gebel, 2015; Gutierrez-Barbarrusa, 2016). Due to their position in the labor market, even graduates are vulnerable to precarious work (i.e., perceptions of uncertain, unpredictable, and risky employment; Kalleberg, 2009), engaging in jobs that do not guarantee progression or social mobility (Nielsen et al., 2019). In general, labor market entrants and young workers are among the most affected by risks of unemployment, temporary jobs, and skill-inadequate employment (Gebel, 2015).

By focusing the research investigation on career insecurity in the early career stage, this dissertation contributed to the modern career literature in various ways. Firstly, majority of insecurity research has focused on the topic of job insecurity (i.e., expectations of continuity in a job situation; Davy et al., 1997). For instance, studies on economic instability have centered on individuals' feelings and perceptions of job insecurity (e.g., De Cuyper et al., 2012). Though these constructs are interrelated, job insecurity and career insecurity have been conceptually distinguished from each other in which individuals do not always experience both insecurities simultaneously (Spurk et al., 2016; 2022). Job insecurity mainly concerns short-term insecurities regarding an individual's current job or its characteristics in an organization (e.g., Shoss, 2017; Vander Elst et al., 2012). Whereas career insecurity deals with short- to long-term thoughts and worries regarding broader career developmental aspects not limited to the individual’s current organization (Spurk et al., 2022). Compared to job loss insecurity, individuals are contended to feel more threatened with career insecurity due to its implications on the individual's pursuit of their selected career path. In line with the call to

broaden the current insecurity literature beyond the lenses of job insecurity (Lee et al., 2018), this dissertation engaged to deepen the discourse on career insecurity in light of the changing circumstances of the world of work.

Secondly, many insecurity studies have focused their attention on employed working adults (e.g., Griep et al., 2021; Klug, 2020), but still few studies have expounded on the career insecurity of early career individuals. Being situated in a flexible labor market, young people are likely to retain an insecure career perspective for a relatively long period of time (Chesters et al., 2019; Wielers et al., 2022). The lingering strain effects of career insecurity, even after it has been reduced, further magnifies its implications on future career outcomes (e.g., successful career transitions, long-term career sustainability; Sullivan & Al Ariss, 2021; Wang & Wanberg, 2017; Zacher & Froidevaux, 2021) and life outcomes (e.g., economic stability, life satisfaction; Liefbroer & Billari, 2010; Mauno et al., 2023). Even a formal educational background does not entirely safeguard labor market entrants from the negative implications of career insecurity (Fiori et al., 2016; Klug et al., 2020). In this regard, the present dissertation concentrated on expanding the current knowledge on career insecurity that is experienced in the early career stage. Considering one’s worries about future career prospects can occur even prior to an individual's official entry into the workforce (Mauno et al., 2023), the dissertation also examined the career insecurity of such individuals (i.e., university students) in its research.

Thirdly, prior studies on career insecurity have assessed the relationships between career insecurity and relevant outcomes by adopting the perspectives of job insecurity in their hypotheses generation and results interpretation (e.g., Colakoglu, 2011; Spurk et al., 2016). The general findings reported by previous insecurity research discuss the detrimental costs of insecurity on individuals' wellbeing, health, job performance, affective organizational commitment, turnover intentions, perceived employability, and motivation (e.g., Cheng &

Chan, 2008; De Cuyper et al., 2012; De Witte et al., 2016; Shoss, 2017; Sverke et al. 2019; Van Eetveldt et al., 2013). More specific to this dissertation's topic, the negative implications of career insecurity have been examined in past studies in which even moderate levels of this construct were significantly associated with negative outcomes (e.g., counterproductive work behavior, poor life satisfaction, e.g., Cai et al., 2024; Mauno et al., 2023). These findings in the literature regarding the unfavorable outcomes related to career insecurity motivated the present research to contribute to the investigation of resources and strategies that can intervene and help early career individuals manage their career insecurity.

Ortlieb and Weiss (2018) contended that even if individuals' career insecurity can share the same source, the resources and strategies that individuals use to cope with it can still vary among people. Furthermore, the positive implications of adaptive resources and coping strategies have been explained and assessed in the career literature, especially in relation to individuals' career development, career success, and general wellbeing (e.g., Shoss, 2017). Despite its importance, scant studies exist that assess the significance of resources and coping in relation to early career individuals' career insecurity. Thus, this dissertation attempted to address this gap in the growing research on career insecurity by examining relevant resources and strategies in the early career stage. Furthermore, this research's investigation on resources and strategies focused on providing theoretical and practical implications to sustain early career individuals' psychological wellbeing and subjective career success despite their career insecurity. Targeting these two specific outcomes was considered highly relevant in this research given previous studies' views that the anxiety and dissatisfaction spurred by career insecurity can hinder young people's career goal progressions and generate emotional exhaustion (Cai et al., 2024; Colakoglu, 2011; Spurk et al., 2022).

Lastly, previous insecurity research found variations among countries regarding individuals' perceptions of insecurity and related outcomes (e.g., Erlinghagen, 2008; Taht et al., 2020). In particular, welfare policies, labor market institutions, social structures, and economic contexts have been regarded as relevant contextual factors that can explain country differences in subjective perceptions of job insecurity and labor market insecurity (Hipp, 2016). Furthermore, the impact of these institutional and social structural differences between countries can also depend on the individual's work contract (e.g., non-standard employment) and other sociodemographic characteristics (Bosmans et al., 2023; Lübke & Erlinghagen, 2014). In light of the importance of acknowledging the uniqueness of each country environment, this dissertation implemented a cross-country study to broaden current insights in the literature regarding perceptions of career insecurity in different country contexts.

In tackling the issue of career insecurity in the early career stage, this dissertation was structured in the following manner. The current chapter, Chapter 1, elaborates further on the concept of career insecurity and the theoretical perspectives that were applied to better understand the construct in the research. Chapters 2 to 4 contain the individual studies that were conducted in the framework of this dissertation. Finally, Chapter 5 provides an overall discussion regarding the findings gained from each individual study of the dissertation and the concluding remarks.

Career Insecurity

An initial conceptualization of career insecurity in previous literature referred to it as career uncertainty and defined it as "any factors that make the individuals feel uncertain of their career future" (Tien et al., 2005, p. 164). While some studies have considered career insecurity as an aspect of qualitative job insecurity (e.g., Van Eetveldt et al., 2013; Zyberaj & Bakaç, 2022), others described the construct to involve feelings of powerlessness regarding one's employment situation (Colakoglu, 2011). It has also been denoted as a sense of doubt

in relation to the fulfillment of career goals (Alisic & Wiese, 2020; Höge et al., 2012). In their recent study, Spurk et al. (2022) provided a refined conceptualization of career insecurity by differentiating it from other relevant career constructs such as low perceived employability and perceived carrier barriers. They defined career insecurity as "an individual's thoughts and worries that central content aspects of one's future career might possibly develop in an undesired manner" (Spurk et al., 2022, p. 257).

Career Development Perspective on the Early Career Stage

In correspondence with the conceptualization of Spurk and colleagues (2022), the construct of career insecurity is grounded on the theoretical perspective of career development as a multidimensional endeavor. Throughout the development of one's career, individuals are expected to manage different content domains that pertain to developmental tasks or life roles (Super et al., 1996). In a similar view, an individual's experience of career insecurity can be based on various content domains related to one's career development and not necessarily limited to the worries that an individual has about their overall career (Spurk et al., 2022). In other words, career insecurity is considered a multidimensional construct that concerns an individual's thoughts and worries regarding different content domains in relation to specific career developmental tasks (Lent & Brown, 2013; Spurk et al., 2022).

This dissertation extended from the work of Spurk and colleagues (2022) and focused on the dimensions of career insecurity that are considered pertinent to the developmental tasks or career-life period of early career individuals. Two theories in the career development literature were used as bases to define the early career stage and its associated career development tasks. The first is Super's (1957) career stage theory, which elaborates on career transitions and developmental tasks that individuals need to address in relation to a specific career stage. The second is Lent and Brown's (2013) social cognitive career theory, which touches on adaptive career behaviors associated with a career-life period. In accordance with

these theories, the career developmental tasks of early career individuals include obtaining work entry or employment after completing one's formal education, developing and refining individual skills, seeking career promotions, and managing work requirements and stresses (Lent & Brown, 2013; Super et al., 1996). Despite the prominence of both social cognitive career theory and career stage theory in the literature on school-to-work and career transitions (Akkermans et al., 2024; Sullivan & Al Ariss, 2021), these theories have yet to provide a framework for research on career insecurity.

In brief, the concentration of this dissertation's scope on the early career stage intended to contribute to the current career research landscape in three ways. Firstly, it aimed to advance the existing knowledge on career insecurity, considering past studies of the construct (e.g., Spurk et al., 2022) did not situate their research in the early career context. Secondly, it served as an attempt to initiate deeper discussions on how career insecurity can be better positioned and applied in the existing frameworks of career development theories (e.g., Lent & Brown, 2013; Super, 1957). Thirdly, it carried implications to the understanding of career insecurity at later career stages in account of past research arguments that developmental tasks or career-life periods can reoccur or overlap across the lifespan due to the nonlinearity of modern careers (Savickas, 2013).

Dimensions of Career Insecurity

In view of the tasks that are associated with the early career stage as described in career development theories (Lent & Brown, 2013; Super et al., 1996), young people's career insecurity was considered to comprise of four dimensions. Namely, these are employment environment, professional education training, career opportunities, and contractual employment conditions. Firstly, the employment environment dimension refers to early career individuals' thoughts and worries about their future employment due to the characteristics of the working environment and other employment-related information they

receive (Tsai et al., 2017). Indeed, employment opportunities are often assessed by individuals based on the experiences of their surroundings in which, for example, individual feelings of insecurity intensify when high unemployment rates are observed (Glavin & Young 2017; Inanc & Kalleberg, 2022). Secondly, the professional education training dimension refers to early career individuals' thoughts and worries about their professional training and self-awareness of the skills and career expectations they possess (Tsai et al., 2017). This dimension relates to reported issues of underemployment becoming a universal experience among young people in which these individuals are working less than their full capacity (i.e., using less of their education, skills, training, or experience; McKee-Ryan & Harvey, 2011; Churchill & Khan, 2021). Thirdly, the career opportunities dimension refers to early career individuals' thoughts and worries about future opportunities in their professional development such as promotions or additional work responsibilities (Spurk et al., 2022). In the context of modern career transitions, career advancements are highly regarded by young people in their respective career paths, whether these advancements are done vertically or horizontally, intra-organizational or inter-organizational (Chudzikowski, 2012). Fourthly, the contractual employment conditions dimension refers to early career individuals' thoughts and worries about their future work conditions concerning, for example, their working hours and contractual conditions (Spurk et al., 2022). The relevance of this dimension is heightened considering accounts of university graduates being employed in temporary jobs as a spreading norm upon the completion of their education (Lodovici & Semanaza, 2012).

In general, these four dimensions of career insecurity encompass pressing issues that are currently observed in the early career stage and have pertinent implications to the career development of young people. These dimensions acknowledge early career individuals' concerns regarding their transition to work and risks of unemployment (i.e., employment environment), susceptibility to underemployment (i.e., professional education training), intra-

organizational and inter-organizational career transitions (i.e., career opportunities), and engagement in temporary jobs or precarious employment (i.e., contractual employment conditions).

Stress Theories as the Overarching Framework

Similar to the approach of other studies in the insecurity literature (e.g., job insecurity), researchers have considered career insecurity as a major stressor among individuals (Colakoglu, 2011; Mauno et al., 2023; Spurk et al., 2022). The nature of a stressor, which is considered a stimulus or an event that can be appraised or regarded as a threat to an individual and their wellbeing, has been heavily explored and discussed among prominent theories on stress (Hobfoll & Ford, 2007; Lazarus & Folkman, 1984). In this light, the dissertation found it useful to employ the perspectives of stress theories to better comprehend the construct of career insecurity and the stress it induces among early career individuals. By adopting the lenses of two stress theories, career insecurity was examined as a stressor that can be overcome through the use of adaptive coping resources and coping strategies.

Conservation of Resources Theory

The basic tenet of the conservation of resources theory is that “individuals strive to obtain, retain, foster, and protect those things they centrally value” (Hobfoll et al., 2018, p. 104), which are referred to as resources. This theory is based on humans' evolutionary need to acquire and conserve resources for survival due to environmental circumstances that would threaten or deplete people's resources (Hobfoll, 1989; Hobfoll et al., 2018). In its original definition, Hobfoll (1989) explained that resources have both objective and subjective components in reference to their instrumental value among people, as well as their symbolic value to help individuals define themselves. Some defined examples of resources include object/condition resources (e.g., job security), personal resources (e.g., key skills, personal

traits), and energy resources (e.g., time, money) that people value (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll et al. 2018). The theory emphasizes that resources, being centrally valued, are universal among people, with implications of culture influencing the appraisals of key resources to a certain extent (Hobfoll, 1989; Hobfoll et al., 2018). But the general norm on how resources are evaluated serves as the main guide for individuals' assessment of themselves and their environment (Hobfoll, 1989).

From its basic tenet, the conservation of resources theory builds on several of its principles and corollaries (Hobfoll, 1989). Its first principle concerns the salience or primacy of resource loss due to humans' cognitive bias to outweigh resource loss and underweigh resource gain (Halbesleben et al., 2014; Hobfoll et al. 2018). The second principle highlights resource investment to protect against resource loss, recover from losses, and gain resources through direct or indirect investments of resources (Hobfoll, 2001). One example of indirect resource investment is when employees increase their skills and confidence resources to prepare for a difficult business environment that has implications of income loss (Hobfoll et al., 2018). In general, to offset resource loss or to gain resources, individuals are contended to make use of the resources they possess or are available from their environment (Hobfoll, 1989). The third principle of this theory argues that, when resource loss circumstances are high, resource gain becomes more important and increases in value (Hobfoll et al., 2018). And the theory's fourth principle, which is also known as the desperation principle, explains that in circumstances when resources are exhausted or outstretched, individuals shift their intentions to the prevention of further resource loss through self-protective or defensive strategies (Hobfoll, 1989; Hobfoll et al., 2018). Engaging in such defensive withdrawal may give individuals some time to get help or to let the stressor pass (Hobfoll et al., 2018). The corollaries of the conservation of resources theory further expound on the spiraling nature of resource loss and resource gain, as well as the integral impact of resource possession to

decrease an individual's vulnerability to resource loss (Hobfoll et al., 2018). Specifically, individuals, and even organizations, with greater resources are less vulnerable to such losses and more capable of resource gain, whereas those that lack resources are more vulnerable to resource loss and are less capable of resource gain (Hobfoll et al., 2018).

Considering its basic tent, the conservation of resources theory posits stress to occur when key resources are lost, threatened with loss, or failed to be gained after a significant investment of effort (i.e., a loss of expected gain; Hobfoll, 1989; Hobfoll et al., 2018). According to this perspective, career insecurity is considered to induce stress among early career individuals in light of their disadvantaged position in the labor market that makes them vulnerable to the threat of resource loss or the failure to achieve resource gain (e.g., job security as a personal and social resource in uncertain economic environments, work centrality as a financial, personal, and social resource; Cai et al., 2024; Höge et al., 2015; Lim et al., 2016; Sender et al., 2016). To elaborate, reports regarding youth unemployment rates, low labor force participation rates, and young people’s susceptibility to enter temporary contracts highlight early career individuals’ uncertainty and lack of control over their employment resources (Dasgupta, 2022; Symeonaki et al., 2019).

Career Resources

The conservation of resources theory also emphasizes the role of resources to offset resource loss or any experience of resource depletion in response to the present or occurring stress (Hobfoll, 1989; Hobfoll et al., 2018). Resources are also underscored as instrumental in the generation of an individual's, as well as an organization’s, capability to manage stressful challenges even in the future (Hobfoll et al., 2018). When not confronting stressors, individuals are still contended to be striving for the development of resource surpluses due to their motivation or long-term outlook on resource conservation that promotes positive wellbeing (Hobfoll, 1989).

To better comprehend how resources operate in stressful conditions, Hobfoll et al. (2018) contended that the context needs to be considered given that the salience and positive impact of a resource can vary depending on the situation (i.e., resources can have differing degrees of utility for different kinds of resource losses). In the context of career insecurity, Hirschi's (2012) career resources model supplements the views of the conservation of resource theory. To elaborate, Hirschi (2012) integrated various self-directed career management constructs, which were previously conceptualized in the dispersed career literature, by framing these constructs as resources that individuals use or develop for their career management. The critical career resources identified in the career resources model allow individuals to evaluate which factors are essential for their positive career development (Hirschi, 2012). The career resources model also contends that the interrelatedness of resources is key to successful career development, considering the conservation of resources theory's notion that resources reinforce each other by facilitating the accumulation of other resources (Hobfoll, 1989).

In this dissertation, two categories of career resources, namely, psychological and social resources, were examined as critical resources of early career individuals to manage their career insecurity. In alignment with the arguments of Halbesleben et al. (2014), psychological and social career resources are considered to be valued by early career individuals as these resources facilitate progress toward the achievement of their career goals. The relevance of these resources is further emphasized when considering the contentions of prior research that the stress and anxiety induced by career insecurity reduces one's ability to set and pursue their goals (Alisic & Wiese, 2020; Colakoglu, 2011). Psychological resources are among the personal resources that was proposed in Hobfoll's theory (1989), which considered the individual's orientation toward the world (e.g., their perception of events to occur in accordance with their best interests) as a personal resource (Antonovsky, 1979;

Hobfoll, 1989). As for social resources, Hobfoll (1989) argued the necessity for these resources to provide or facilitate the preservation of valued resources (e.g., employment) among individuals by supporting their positive sense of self and belief to overcome stressful circumstances.

In summary, Hobfoll's (1989) conservation of resources theory, supplemented by Hirschi's (2012) career resources model, was used in this dissertation to understand the role of resources in helping early career individuals manage and cope with their career insecurity. The specific psychological and social career resources that were investigated in this dissertation are further detailed in each study chapter.

Transactional Theory of Stress and Coping

Another theoretical explanation of stress focuses on the relational and dynamic nature of the transaction between an individual and their environment. According to the transactional theory of stress and coping, stress is "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing" (Lazarus & Folkman, 1984, p. 19). This theory emphasizes that stress is based on the person's appraisal of what their circumstances imply, or in other words, the meaning that individuals attribute to their environment (Lazarus & Folkman, 1984; Smith & Kirby, 2011). The cognitive process through which meaning is ascribed to events or stimuli concerns two forms of appraisal (Lazarus & Folkman, 1984). The first form is primary appraisal, which evaluates the event/stimulus encountered as either irrelevant, benign/positive, or stressful (Smith & Kirby, 2011). When the primary appraisal of one's circumstances is evaluated as stressful (i.e., the event/stimulus could signify harm/loss, threat, or challenge to an individual), the second form of appraisal becomes especially relevant (Biggs et al., 2017; Smith & Kirby, 2011). Specifically, secondary appraisal

evaluates the options and resources that an individual has to cope with the stressful encounter (Lazarus & Folkman, 1984).

In line with the transactional theory of stress and coping, career insecurity is considered to be based on an individual's primary appraisal of their circumstances as a situation that taxes or exceeds the individual's resources, implicating their needs or goals. Specifically appraised as a threat, career insecurity elicits stress due to the situation's potential for future harm or loss (Lazarus & Folkman, 1984). Past research shared a similar view of career insecurity, which represents a potential threat to individuals' career development, especially in the early career stage (Alisic & Wiese, 2020). In particular, it is implied to interfere with early career individuals' professional objectives and aspirations, inducing a sense of fear that they will not achieve their career goals (Alisic & Wiese, 2020; Höge et al., 2012).

In response to the stress-eliciting situation that requires efforts to manage or resolve it, coping is enacted by an individual through conscious, purposeful actions (Biggs et al., 2017; Folkman & Lazarus, 1988; Smith & Kirby, 2011). In general, the aim of coping is to reduce the gap between the demand and the individual's available resources to decrease the perceived stress (Lazarus & Folkman, 1984). Process-oriented and dynamic, coping generally involves efforts to manage a stressful situation, regardless of its effectiveness (Lazarus & Folkman, 1984; Smith & Kirby, 2011). Various classifications of coping have emerged in the literature that allow a broader perspective of the construct by assessing complementary strategies collectively (e.g., Latack & Havlovic, 1992). Among the conceptually clear coping taxonomies that past research has cited are the approach and avoidance strategies, which are based on the "person's orientation and activity in response to a stressor" (Biggs et al., 2017; Moos & Holahan, 2003, p. 1390). These coping strategies are distinguished based on the individual's cognitive, emotional, and behavioral activity that is oriented either toward (i.e.,

approach) or away (i.e., avoidance) from the threat (Moos & Holahan, 2003; Roth & Cohen, 1986). Coping responses that focus on the problem or the stressor (e.g., searching information about the problem, thinking of solutions, creating plans to address the problem) are strategies that would be categorized as approach coping (Biggs et al., 2017). These strategies would exert effort to directly confront external stressors or problems (Carver, 2011). Whereas coping responses that repress undesirable aspects of a stressor (e.g., denying or minimizing the seriousness of a situation, distracting one's self with other activities, reducing tension by venting one's feelings) would be categorized as avoidance coping (Biggs et al., 2017; Moos & Holahan, 2003). These strategies would ignore the problems or escape from the circumstances through passive means (Carver, 2011).

Coping Outcomes

According to the transactional theory of stress and coping (Lazarus & Folkman, 1984), the outcome of coping efforts is reappraised to determine if the coping efforts were successful (e.g., the situation has changed and is no longer considered stressful). Coping effectiveness has been conceptualized on the basis whether coping strategies reduce negative outcomes and increase positive outcomes (Dewe & Cooper, 2007). Lazarus and Folkman (1984) theoretically assumed, however, that no form of coping is inherently linked to adaptive results and that depending on the circumstances, any form of coping can be considered effective/adaptive or ineffective/maladaptive. They further contended that instead of using previous conceptions regarding which coping strategies are superior, the context or constraints of a given situation need to be considered to gain a clearer picture of the effects or contributions of coping on adaptive outcomes (Carver et al., 1989; Lazarus & Folkman, 1984; Smith & Kirby, 2011).

Depending on the actual moment or life situation, some forms of coping will emerge as a more adaptive strategy compared to the other (Mayordomo et al., 2016). For example,

denial, distraction, and venting can be the best available responses as a short-term strategy (Carver et al., 1989; Lazarus & Folkman, 1984), whereas active attempts to achieve a possibly unobtainable goal can become maladaptive (Rasmussen et al., 2006). Past studies have also suggested that the short-term adaptiveness of avoidance coping strategies for individuals' wellbeing cannot be disregarded in certain situations. When stressors are appraised as uncontrollable or when resources are insufficient to focus on the problem, avoidance coping is considered adaptive as it enables individuals to avoid intense, emotional reactions to the stressor (Biggs et al., 2017; Ben-zur, 2009). When individuals distance themselves from a problem, they create a psychological space that helps them recover from stress (Arble & Arnetz, 2017). In their study during the COVID-19 pandemic, Sfeir and colleagues (2023) found that both approach and avoidance coping strategies were positively associated with general wellbeing. They suggested that individuals who engage in avoidance coping may later adopt approach coping strategies when they have energy and motivation (Sfeir et al., 2023).

But when considering the long-term wellbeing of individuals, researchers have often considered approach coping as a more adaptive orientation compared to avoidance coping (e.g., Herman-Stahl et al., 1995; Taylor & Stanton, 2007). Avoidance coping may provide momentary relief by making an individual feel better during the stressful situation (Spector, 2002). But it also disconnects the individual from the problem, preventing further attempts of coping and becoming maladaptive when used in a longer term (Biggs et al., 2017; Ben-zur, 2009; Semmer, 2006). For example, LeBlanc and colleagues (2008) found that avoidance coping was positively related to short-term effects such as lowered anxiety but negatively related to long-term effects such as posttraumatic stress disorder symptoms. Additionally, MacIntyre and colleagues' (2020) noted in their study that participants who were often

engaging in avoidance coping were also experiencing increasing levels of stress, making its continuous use maladaptive or unsuccessful in mitigating stress.

In brief, this dissertation focuses on approach and avoidance coping as the strategies that early career individuals use to deal with their career insecurity. The succeeding paragraphs further detail how the research examined these coping strategies in light of their effectiveness or relations to coping outcomes.

Overview of Studies

Three studies were carried out under the framework of this dissertation to examine the phenomenon of career insecurity in the early career stage. All studies applied a participant criterion to operationalize early career individuals. Specifically, the individual's age was considered as the inclusion criterion for study participation. The current literature has varying classifications of the age range that should be considered in the early career stage (Bohlmann et al., 2018). In this dissertation, the national contexts of each sample and the explorative and investigative aims of the corresponding studies were essential to establish the proper age criterion for the research (Knight & Somerville, 2024). The age ranges reported in previous insecurity research (i.e., early job insecurity, labor market insecurity) also helped define the participant criterion for each study (e.g., Muffels, 2013; Symeonaki et al., 2019). Aside from the individual's age, no other participant criteria were applied to allow a broader research scope of career insecurity in the early career stage. Table 1 summarizes the sample characteristics, research designs, and variables measured for each study of the dissertation.

Study 1 of the research project is presented in Chapter 2 and employed an exploratory approach to understand the significance of resources for early career individuals to cope with their career insecurity. Building on the perspectives of resources theories (Hirschi, 2012; Hobfoll, 1989), this study explored the psychological career resources and social career resources that university students possessed. Specifically, it aimed to identify profiles of

career resources among university students. Furthermore, the significance of the resources was examined by assessing significant differences between the identified career resources profiles in relation to two variables: career insecurity, which is viewed as a threat of resource loss or a loss of expected gain; and employability, which is considered an outcome of resource gain (Hobfoll, 1989). The study results identified four profiles of career resources among university students that possessed varying combinations of low and high levels of psychological and social career resources. Furthermore, the results found that the profiles possessing high levels of career resources reported lower career insecurity and higher employability.

Considering the significant results of Study 1 regarding early career individuals' resources to cope with their career insecurity, Study 2, which is presented in Chapter 3, extended the investigation on career insecurity by proposing and testing a conceptual model. The conceptual model of coping with career insecurity is based on the contentions of the two stress theories (Hobfoll, 1989; Lazarus & Folkman, 1984) presented in the previous section. In addition, the conceptual model builds on the previous literature of career insecurity (i.e., the relations between this construct and individual outcomes; Spurk et al., 2022) and coping (i.e., the use efficient coping strategies to increase the likelihoods of positive outcomes; Heckhausen, 2010). In the model, career insecurity is hypothesized to be significantly related to both approach and avoidance coping strategies through the moderating role of ambiguity tolerance (i.e., preference to ambiguity, aversion to ambiguity), which is considered a personal resource. The rationale for these hypothesized relationships was to clarify the individual difference that would increase or decrease the individual’s likelihood to use one coping strategy over another (Alisic & Wiese, 2020). Specifically, ambiguity tolerance was regarded to either facilitate or limit the use of coping strategies in response to career insecurity. In the model, career insecurity is also hypothesized to be indirectly related to two

individual outcomes, namely, psychological wellbeing and subjective career success, through the mediating roles of approach and avoidance coping strategies. Study 2 tested the model in an Italian sample, wherein the results found that preference to ambiguity weakened the positive relationship between career insecurity and avoidance coping. Furthermore, approach coping was found to play a mediating role in the negative relationships between career insecurity and the two measured outcomes.

In consideration of the findings attained in Study 2, Chapter 4 presents Study 3 of the research project, which further tested the hypothesized relationships of the conceptual model of coping with career insecurity with additional considerations. Firstly, the model analyzed career insecurity as four dimensions and performed individual analyses between each dimension and the related variables. In doing so, it allows the differentiation of each dimension's relevance to the overall career insecurity of early career individuals (e.g., Rydzik & Bal, 2024). Secondly, the hypothesized relationship between career insecurity and approach coping was reevaluated in Study 3, which expected a negative association between these variables. This reconsideration aligned better with the findings that emerged Study 2, as well as the perspectives of past job insecurity and career insecurity research (Alisic & Wiese, 2020; De Witte, 2005; Vander Elst et al., 2012). Thirdly, ambiguity tolerance was operationalized as aversion to ambiguity in this study to reassess the nonsignificant finding in Study 2 concerning its moderating role in the relationships between career insecurity and coping strategies. By focusing the study's examination on the aversion to ambiguity dimension of ambiguity tolerance, the desperation principle of the conservation of resources theory (Hobfoll, 1989) is better probed (i.e., the use of defensive strategies is expected due to the lack of available resource). Fourthly, the model was tested in a sample of early career individuals who came from four different countries. Recognizing the contextual factors and labor market conditions that vary between countries (Rouvroye & Liefbroer, 2023; Rydzik &

Bal, 2024), Study 3 also investigated cross-country differences in early career individuals' career insecurity, ambiguity tolerance, and coping strategies. In relation to the research findings, Study 3 extended the insights gained from Study 2 by assessing the significant relationships between the four dimensions of career insecurity and the two coping strategies. Aversion to ambiguity was also found to moderate the positive relationship between the employment environment dimension of career insecurity and avoidance coping. Furthermore, avoidance and approach coping strategies mediated different relations between the career insecurity dimensions and individual outcomes (i.e., psychological wellbeing, subjective career success). Lastly, significant differences in the levels of career insecurity, ambiguity tolerance, and aversion to ambiguity were found between countries, and these were further probed with exploratory analyses in each country subsample.

Table 1

Samples, research designs, and variables used in each study

	Study 1	Study 2	Study 3
Sample size	*N* = 281	T1: *N* = 411 T2: *N* = 156	T1: *N* = 492 T2: *N* = 223
Sample characteristics	University students	Early career individuals in Italy	Early career individuals in Italy, Norway, Bangladesh, Indonesia
Research design	Cross-sectional	Two-wave study	Two-wave study
Variables			
Career Insecurity		x	
CI: Career Opportunities	x		x
CI: Contractual Employment Conditions	x		x
CI: Employment Environment			x
CI: Professional Education Training			x
Resources			
PCR: Present positive time perspective	x		
PCR: Future positive time perspective	x		
PCR: Resilience	x		
SCR: University career support	x		
SCR: Social career support	x		
SCR: Studies challenge	x		
AT: Preference to ambiguity		x	
AT: Aversion to ambiguity		x	x
Coping Strategies			
Avoidance coping		x	x
Approach coping		x	x
Outcomes			
Employability	x		
Psychological wellbeing		x	x
Subjective career success		x	x

Note. T1 = Time 1. T2 = Time 2. PCR = Psychological Career Resource. SCR = Social Career Resource. CI. = Career Insecurity. AT = Ambiguity Tolerance.

CHAPTER 2

Study 1

Exploring university students' career resources profiles to cope with career insecurity and promote employability

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Abstract

The aim of this study was to characterize profiles of career resources among university students and identify differences in career insecurity and employability between these profiles. The conservation of resources theory (Hobfoll, 1989) and career resources model (Hirschi, 2012) were used as theoretical lenses. Specifically, psychological career resources (i.e., present positive time perspective, future positive time perspective, resilience) and social career resources (i.e., university career support, social career support, studies challenge) were explored as university students' resources to cope with their career insecurity and promote their employability. Survey data were collected from university students (N = 281) in this cross-sectional research. Cluster analysis results revealed four career resources profiles of university students: (1) low career resources; (2) high career resources; (3) high psychological career resources–low social career resources; (4) low psychological career resources–high social career resources. Additionally, career resources profiles with high levels of psychological career resources were found to have significantly lower scores on career insecurity and higher scores on employability in comparison to other career resources profiles. The study has theoretical and practical implications for a person-centered approach to promoting career preparation among university students.

Keywords: career resources; time perspective; resilience; career insecurity; employability

Introduction

The trajectory of modern careers has become fragmented and unpredictable in contrast to the stability and linearity of a traditional career path (Chudzikowski, 2012; Potter, 2020). Individuals have acknowledged the increasing uncertainties in the work environment caused by factors such as the rise of alternative employment arrangements and rapid technological advancements that may bring potential threats to their careers (Kunda et al., 2002; Skrbiš & Laughland-Booÿ, 2019). These changes in the work environment generate further uncertainty among university students as their educational and career routes to success have become more complicated (Appadurai, 2004; Bynner, 2005). In particular, the complexity of contemporary university-to-work transitions subject students to a vulnerable start in the labor market that can have a detrimental impact on their future career development and later life outcomes (Blokker et al., 2023; Luijkx & Wolbers, 2009; Mills et al., 2005). In light of this context, the present research was interested in understanding the significance of university students' resources to navigate their future careers in the current labor market. Specifically, our study focused on identifying profiles of psychological and social career resources among university students. Though previous results of student profiles have been reported in the career literature (e.g., career orientations, career decision statuses; Rojewski et al., 2017; Santos & Ferreira, 2012), existing studies have yet to consider how university students can be grouped based on the levels of career resources they possess.

The significance of career resources is further underscored when examined in relation to university students' career insecurity and employability. These two concepts have been continuously examined in past research considering their relevance in the modern career environment (e.g., Donald et al., 2023; Spurk et al., 2022). The impact, however, of career resources on both career insecurity and employability still needs to be clarified or expanded better in the current literature. For instance, few studies have explored how a combination of

career resources may affect university students' insecure thoughts and worries about their future careers after graduation. Additionally, there is still a lack of evidence on how different forms of career resources interact with each other to determine university students' perceptions of successfully gaining and maintaining employment. Thus, our study also focused on exploring how profiles of career resources can differ with regard to university students' experiences of career insecurity and employability.

Theoretical Framework

According to the conservation of resources (COR) theory, resources are defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as the means for attainment of other objects, personal characteristics, conditions, or energies" (Hobfoll & Ford 2007, p. 563). Or simply, it is "anything perceived by the individual to help attain his or her goals" (Halbesleben et al., 2014, p. 1337). Individuals are motivated to protect their current resources (conservation) and acquire new ones (acquisition; Hobfoll & Ford, 2007). It means that a threat of a net loss of resources, an actual loss of resources, or a lack of resource gain after investing one's resources can generate psychological stress (Hobfoll, 1989).

Considering work is regarded as a valuable resource, career insecurity is viewed as a stressor in the uncertain work environment. Career insecurity concerns the individual's inability to control one's work situation, sense of efficacy to cope with circumstances, and perceived threat in both the continuity and quality of subsequent employment (Colakoglu, 2011; Tien et al., 2005). In particular, the stress induced by career insecurity is due to the collective understanding that people have of a career. Traditionally, careers have been associated with hierarchical advancements (Dries, 2011; Potter, 2020). Even though changes in work institutions and non-linear career trajectories have emerged, the traditional notion of a stable career path persists as a marker of social status and identity (Amundson, 1994;

Potter, 2020). This causes psychological stress among individuals who are not in a stable work position, such as university students. Situated at the early stages of their careers, university students tend to possess fewer resources due to their limited work experience or job tenure, which makes them vulnerable to resource loss such as unemployment (e.g., Berglund et al., 2014; Symeonaki et al., 2019). Furthermore, the stress caused by career insecurity among university students can be attributed to the threat of a lack of resource gain (e.g., employment) after one's investment of resources in higher education (Hobfoll, 1989; Rouvroye & Liefbroer, 2023).

By contrast, individuals with greater resources are less susceptible to threats of resource loss and have greater opportunities to invest and gain more resources (Hobfoll, 1989). In a context where the circumstances of resource loss are high, the possession of greater resources plays a significant role in not only reducing the threat of resource loss induced by career insecurity but also in developing and improving the employability of university students (Hetty van Emmerik et al., 2012; Jabeen et al., 2022; Tomlinson et al., 2017). Various definitions of employability exist in the current literature. One example defined employability as "the capability to move self-sufficiently within the labor market to realize potential through sustainable employment" (Hillage & Pollard, 1998, p. 12). Notably, more recent studies on employability have increasingly related it to the knowledge, skills, and attitudes that individuals possess. For instance, Tomlinson (2017) conceptualized employability to be constitutive of five main forms of capital or resources (i.e., human capital, social capital, cultural capital, psychological capital, identity capital) that can empower graduates when making transitions into the job market. In a similar vein, Clarke (2017) considered six dimensions of graduate employability: human capital, social capital, individual attributes, individual behaviors, perceived employability, and labor market factors. Recently, the systematic review by Donald et al. (2023) identified nine forms of

employability capital: social capital, cultural capital, psychological capital, personal identity capital, health capital, scholastic capital, market-value capital, career identity capital, and economic capital. Essentially, all these employability models are based on the concept of resource accumulation and resource gain when navigating the labor market.

In further extension of the COR theory's propositions, Hirschi's (2012) career resources model provides a useful lens for understanding what critical career resources university students can possess and acquire to cope with their career insecurity (i.e., a threat of resource loss or lack of resource gain) and to promote their employability (i.e., an outcome of resource gain). The present study focused on two critical career resources: psychological and social career resources. These key resources are argued to equip university students and make them ready to negotiate the challenges of labor market entry (Tomlinson et al., 2017). In previous research, psychological and social career resources were found to significantly relate to career anxiety (Boo et al., 2021; Jung et al., 2015), career decision-making outcomes (e.g., Kvasková & Almenara, 2021; Shin & Kelly, 2015), employability (Tentama et al., 2019; Xia et al., 2020), psychological wellbeing (Çivitci, 2015; Saltzman et al., 2020), and subjective career success (Fernández-Díaz et al., 2021; Mishra & McDonald, 2017). The succeeding paragraphs provide more details of the career resources that were examined in this research.

Psychological Career Resources

Psychological career resources refer to positive psychological traits and states that are considered pivotal for successful career development (Hirschi, 2012). Considering these resources come in various forms, the present study focused on two psychological career resources, time perspective and resilience, that can facilitate the proactive and reactive coping of university students in light of the modern career environment.

Time Perspective

The first psychological career resource refers to an individual's conceptualization of time, or their time perspective, which can affect an individual's response or appraisal toward uncertainty in their careers (Anagnostopoulos & Griva, 2012; Nuttin & Lens, 1985). Conceptualized as a multidimensional construct involving positive feelings toward the present and future (Mello & Worrell, 2015), time perspective allows university students to proactively cope by influencing outcome expectations, motivation, and task-related performance (Epel et al., 1999; Lewin, 1951). It enables them to perceive potential stressors in one's future career, generate specific behaviors or actions in response to future stressors, and mitigate negative effects (Aspinwall & Taylor, 1997; Felaco & Parola, 2022; Zeng et al., 2022). Furthermore, people with greater future orientation were shown to demonstrate more engagement in proactive career behaviors and higher perceptions of employability (Praskova & Johnston, 2021).

Resilience

While time perspective is related to the reduction of a potential career stressor's development (e.g., by setting goals and planning for the future; Zimbardo & Boyd, 1999), the second psychological career resource refers to resilience, which is related to the reduction of negative consequences induced by a career stressor (Aspinwall & Taylor, 1997). Defined as the ability or capacity to bounce back from adversity or disruptions (Luthans, 2002; Seibert et al., 2016), resilience regulates how one copes with an experienced stressor for a long period of time (Ng et al., 2012). It concerns endurance to withstand pressures and disruptions in the early stages of one's career (Tomlinson et al., 2017). Considered a dimension of dispositional employability (Fugate & Kinicki, 2008), resilience aids university students in tolerating uncertainty and adapting to the challenges of the labor market such as periods of unemployment or underemployment (Fourie & Van Vuuren, 1998; Tomlinson et al., 2017).

In summary of these defined psychological career resources, on the one hand, time perspective supports proactive career planning and self-management, while, on the other hand, resilience boosts the ability to react to environmental challenges.

Social Career Resources

Social career resources generally concern the structure of an individual's social relations (Adler & Kwon, 2002; Hirschi, 2012). For university students, social career resources can take the form of receiving social support regarding career-relevant tasks or issues from their social networks, including family, school/teachers, and peers (Jiang et al., 2017; Xia et al., 2020). These academic- and career-related networks and relationships may provide university students with relevant information and support to successfully access the labor market. For example, support from teaching staff was found to improve perceived employability (Petruzziello et al., 2023), career engagement, and movement capital among university students (Petruzziello et al., 2022). Teaching staff may offer some connections with potential employers, act as referees, and facilitate university students' awareness of labor market opportunities (Pham, 2023; Tomlinson et al., 2017). Social career resources are also argued to help university students cope with stressful situations such as the current career landscape by serving as a protective factor between stressful events and negative feelings (Jemini-Gashi & Hoxha, 2024; Lazarus & Folkman, 1984).

Present Study

In their models, Hirschi (2012) and Hobfoll (1989) contended that career resources promote the development of other career resources. In other words, the accumulation of one resource (e.g., psychological career resource) can lead to the accumulation of other resources (e.g., social resources). Prior studies have supported this contention and found significant meaningful relations between psychological and social career resources (Ataç et al., 2018; Hui et al., 2018). In line with this notion, our study aimed to explore university students'

resource accumulation by exploring profiles of psychological (i.e., time perspective, resilience) and social career resources. In particular, our exploratory study focused on addressing the following research questions: (1) Can profiles of university students be identified based on the psychological and social career resources they possess? (2) To what extent do these profiles differ in relation to university students' career insecurity and employability?

Method

Participants and Procedure

The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of the University of Bologna, Italy (Protocol number 0122490, 23 May 2022). To address the research questions, a cross-sectional research design was carried out. Data were collected from October to November 2022 using an online survey created on the Qualtrics platform. Convenience and snowball sampling strategies were used to recruit university students as study participants. The survey was distributed through an anonymous link and a QR code.

A total of 389 individuals accessed the survey. Among them, 296 participants provided their informed consent and completed the entire survey. Considering the differences in available resources between age groups, an inclusion criterion was applied in the study in which the age of the participants needed to be 30 years or less. Fifteen participants did not satisfy this criterion and were excluded from the study. The final sample (N = 281) consisted of 62.28% female participants, 35.23% male participants, and 2.49% participants who did not indicate their gender. The median age was 24 (SD = 2.276). The participants came from different universities and were studying in different year levels of their respective degree programs: 1st-year bachelor's degree (2.85%); 2nd-year bachelor's degree (8.90%); 3rd-year bachelor's degree (12.46%); 4th-year single cycle degree (2.14%); 5th-year single cycle

degree (2.85%); 1st-year master's degree (12.10%); 2nd-year master's degree (43.77%); other year levels in a bachelor's degree (3.20%); other year levels in a master's degree (11.74%). The majority of the participants came from Italy (53.4%). Additionally, among the participants, 40 were current or former international students who spent a period of their studies in Italy as part of the Erasmus+ mobility program founded by the European Union. In relation to previous work experiences, 31.67% of the participants had prior full-time work experience, 55.16% had prior part-time work experience, 53.74% had prior internship experience, and 34.16% had other kinds of prior work experience.

Measures

All scales used in this study were originally validated in the English language. For scales that had no prior validation study in Italy, these were translated into the Italian language following back-translation procedures. The factor structure or dimensionality of the measures that needed Italian translation was assessed using confirmatory factor analysis. The following model fit indices and threshold values were considered to evaluate goodness-of-fit: Comparative Fit Index (CFI) ≥ .90; Standardized Root Mean Square Residual (SRMR) ≤ .08; RMSEA (Root Mean Squared Error of Approximation) ≤ .08 (Hu & Bentler, 1999). A 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree) was used as a response scale for all measures.

Time Perspective

The English and Italian versions of the Adolescent and Adult Time Inventory (Mello & Worrell, 2010; Mello et al., 2011) were used to measure individuals' time perspective. Specifically, two dimensions of time perspective were measured using 5 items for each subscale: present positive time attitude (e.g., "Overall, I feel happy about what I am doing right now"; alpha = .891); future positive time attitude (e.g., "I look forward to my future"; alpha = .896).

Resilience

The Brief Resilience Scale (Smith et al., 2008) was used to measure resilience. It consisted of 6 items (e.g., “I tend to bounce back quickly after hard times”) and reported a Cronbach’s alpha of .802. The scale’s one-dimensionality was confirmed: CFI = .977; SRMR = .027; RMSEA: .075 (90% CI = .032 to .118).

Social Career Resources

Three subscales from the Career Resources Questionnaire (Hirschi et al., 2018) were used to measure university students’ social career resources. Namely, these subscales were the 3-item university career support (e.g., “I feel fully supported in my career development by my current university”; alpha = .842), the 4-item social career support (e.g., “I know many people who support me in my career development”; alpha = .811), and the 3-item studies challenge (e.g., “My studies help me to increase my skills”; alpha = .769). A good model fit was found for the three-factor structure: CFI = .964; SRMR = .039; RMSEA = .071 (90% CI = .051 to .091).

Career Insecurity

Career insecurity was measured using two 4-item subscales from the Multidimensional Career Insecurity Scale (MU-CI-S; Spurk et al., 2022). The subscales pertained to career opportunities (e.g., “I am anxious that in my future career, no promotion possibilities could arise”) and contractual employment conditions (e.g., “I fear that I might have to conduct my future work under worse conditions (e.g., working hours, salary)”). The following Cronbach’s alpha values were reported: career opportunities (alpha = .814) and contractual employment conditions (alpha = .803). The results of the confirmatory factor analysis reported a satisfactory model fit for the two-factor structure: CFI = .977; SRMR = .031; RMSEA = .065 (CI = .037 to .092).

Employability

To measure employability, the scale developed by Berntson and Marklund (2007) was used. The scale was also available in Italian (Caricati et al., 2016) and consisted of 5-item statements (e.g., “My competence is sought-after in the labor market”). It reported a Cronbach’s alpha value of .762.

Statistical Analysis

Preliminary analyses of the measured variables were run using correlations. A minimum effect size index of .30 was considered to establish a meaningful correlation between the variables (Cohen, 1988). Cluster analysis was conducted in this study in relation to the first research question. Considering cluster analysis is an exploratory technique that researchers use to classify people into a preferred small number of clusters based on observed variable scores (Hofstetter et al., 2014), this analysis was chosen for its bottom-up or data-driven approach to answer the study’s research question (Gartstein et al., 2017). In contrast to a latent profile analysis that is driven strongly by a model or theory concerning underlying assumptions about the data (Spurk et al., 2020), the study’s exploratory nature benefits from the use of cluster analysis and its main goal of deriving the most homogenous subgroups possible (Gartstein et al., 2017). Through this analysis, the actuality of creating meaningful clusters from career resources can be elaborated (Huberty et al., 2005). Specifically, a two-step cluster analysis, which is suitable for both continuous and noncontinuous data (Norusis, 2003), was performed. The two-step clustering method combines hierarchical and non-hierarchical clustering methods and creates groups of similar cases based on a probabilistic model (Chiu et al., 2001; Hair et al., 2013). In this study, the Euclidian distance measure was used to separate groups, and the optimal cluster solution was determined using Akaike’s Information Criterion (AIC; Benassi et al., 2020; Kent et al., 2014). The cluster solution with

a low number of clusters, low value of AIC, and strong change of AIC was selected as the most parsimonious cluster solution with the best fit (Benassi et al., 2020; Jones, 2011).

One-sample t-tests were also executed to confirm the significant differences between each cluster's mean scores and the total sample's mean scores with regard to the clustering variables. In addition, one-way analysis of variance and non-parametric tests (i.e., chi-squared test, Kruskal–Wallis H Test) were conducted to compare differences in the sociodemographic composition between clusters. To assess the relationships between sociodemographic characteristics and cluster memberships, multinomial logistic regression was run. In relation to the second research question, a one-way analysis of variance was performed to examine the mean differences in career insecurity and employability between the career resources profiles. The analyses were run using statistical software, namely Mplus 8.9 and IBM-SPSS 26.0.

Results

Table 1 reports the reliability and correlations of the measured variables. Meaningful correlations were established between career resources, career insecurity, and employability. Specifically, all resources except social career support were negatively related to the two dimensions of career insecurity. Future positive time perspective and resilience, however, had more meaningful correlations with the career insecurity dimensions, in contrast to the other resources. In addition, all resources were positively related to employability, with future positive time perspective and the three social career resources showing stronger relations. It is interesting to note that while the two time perspectives and social career resources were reciprocally related, there were weak or no relationships between resilience and social career resources.

Table 1

Correlations

		α	1	2	3	4	5	6	7	8
1	PCR: Present positive time perspective	.891								
2	PCR: Future positive time perspective	.896	.451 **							
3	PCR: Resilience	.802	.206 **	.301 **						
4	SCR: University career support	.842	.366 **	.327 **	.122 *					
5	SCR: Social career support	.811	.430 **	.325 **	.120 *	.577 **				
6	SCR: Studies challenge	.769	.326 **	.326 **	.097	.637 **	.567 **			
7	CI: Career opportunities	.814	−.262 **	−.356 **	−.287 **	−.122 *	−.106	−.179 **		
8	CI: Contractual employment conditions	.803	−.270 **	−.426 **	−.307 **	−.242 **	−.108	−.246 **	.730 **	
9	Employability	.762	.235 **	.397 **	.245 **	.346 **	.352 **	.383 **	−.280 **	−.251 **

Note. PCR = Psychological Career Resources. SCR = Social Career Resources. Career Insecurity = Career Insecurity.

* $p < .05$

** $p < .01$

Career Resources Profiles

To address the first research question, the profiles of career resources were identified based on university students' scores on three psychological career resources (i.e., present positive time perspective, future positive time perspective, resilience) and three social career resources (i.e., university career support, social career support, studies challenge). The skewness and kurtosis values of all measured career resources fell within the acceptable range of −2 and +2, so the distributions of the scores in this sample were close to normal.

Using AIC as a statistical measure of fit, a four-cluster solution was chosen as optimal because of the low AIC value (1150.348) and strong change of AIC (−5.426; see Table 2), demonstrating generality and parsimony (Multon et al., 2007; Santos & Ferreira, 2012). The final cluster solution is presented in Table 3.

Table 2

AIC, AIC change, and ratio of AIC change of solutions with different numbers of clusters

Clusters (*n*)	AIC	AIC Change [a]	Ratio of AIC Change [b]
1	1189.643		
2	1198.129	8.485	1.000
3	1196.391	−1.738	−0.205
4	1150.348	−46.043	−5.426
5	1158.530	8.181	0.964

Note. AIC = Akaike's Information Criterion.

[a] The changes are from the previous number of clusters in the table.

[b] The ratios of changes are relative to the change for the two cluster solution.

Table 3

Means and standard deviations of career resources by cluster

	(1) Low CR $n = 53$		(2) High PCR Low SCR $n = 99$		(3) Low PCR High SCR $n = 66$		(4) High CR $n = 63$		Total $N = 281$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
PCR: Present positive time attitude	2.857	0.675	3.762	0.496	3.718	0.512	4.124	0.481	3.662	0.677
PCR: Future positive time attitude	2.781	0.831	3.723	0.614	3.264	0.646	4.213	0.500	3.547	0.808
PCR: Resilience	2.906	0.766	3.311	0.481	2.455	0.491	3.561	0.578	3.090	0.699
SCR: University career support	2.082	0.695	3.077	0.547	3.566	0.545	4.053	0.505	3.223	0.870
SCR: Social career support	2.708	0.754	3.321	0.515	3.761	0.522	4.290	0.461	3.526	0.771
SCR: Studies challenge	2.579	0.785	3.310	0.562	3.848	0.434	4.312	0.478	3.523	0.818

Note. CR = Career Resources referring to both psychological and social career resources. PCR = Psychological Career Resources. SCR = Social Career Resources.

Cluster 1 (18.9%) presented low levels in almost all career resources. Specifically, the mean scores on two psychological career resources (i.e., present positive time perspective, future positive time perspective) and all three social career resources were observed to be lower in this cluster compared to the sample's mean scores. The cluster's mean score on resilience, however, was comparable to the sample's mean score. This cluster is referred to as low career resources (Low CR).

Cluster 2 (35.2%) alluded to high levels of psychological career resources but low levels of social career resources. Particularly, this cluster's mean scores on present positive time perspective, future positive time perspective, and resilience were higher than the sample's mean scores. However, its mean scores on university career support, social career support, and studies challenge were lower than the sample's mean scores. This cluster is referred to as high psychological career resources–low social career resources (High PCR–Low SCR).

Cluster 3 (23.5%) was characterized by low scores on two psychological career resources but high scores on social career resources. Specifically, this cluster's mean scores on future positive time perspective and resilience were lower than the sample's mean scores, but its mean score on present positive time perspective was average in comparison to the sample's mean score. Furthermore, its mean scores on all three social career resources were higher than the sample's mean scores. This cluster is referred to as low psychological career resources–high social career resources (Low PCR–High SCR).

Lastly, Cluster 4 (22.4%) indicated high levels of all career resources. The mean scores on all psychological and social career resources in this cluster were higher than the sample's mean scores. This cluster is referred to as high career resources (High CR).

This four-cluster solution appears to align with Hirschi's (2012) proposal on the mutual reinforcement of career resources over time. To elaborate, a current lack of career

resources is implied to hinder the development of other categories of career resources, whereas the existence of one category of career resources is implied to promote the development of other categories of career resources (Hirschi, 2012). In line with this notion, this four-cluster solution seemingly considers the different timepoints in the dynamic process that resources can aggregate.

As detailed in Table 4, significant differences in gender were found between clusters, χ^2 (3, N = 274) = 11.952, p = .008. It can be observed that males composed 44.44% and 41.27% of Clusters 2 (High PCR–Low SCR) and 4 (High CR), respectively, whereas males composed only 22.64% and 25.76% of Clusters 1 and 3, respectively. The disproportion in the gender composition (e.g., the higher proportion of females) seems more pronounced in Clusters 1 (Low CR) and 3 (Low PCR–High SCR). Additionally, results of a Kruskal–Wallis test showed significant differences in age between some clusters, χ^2 (3, N = 281) = 9.922, p = .019, in which the median age for all clusters is 24, except for Cluster 3, which has a median age of 23. Dunn's pairwise comparisons with Bonferroni correction indicated the median age of Cluster 3 (Low PCR–High SCR) to be significantly lower compared to that of Cluster 1 (Low CR), p = .005. In relation to the clusters' composition of university year levels and work experiences, no significant differences were found between the clusters. The distribution of university year levels and work experiences for each cluster is comparable to the overall sample distribution (e.g., the majority of the university students who comprise each cluster are second-year master's degree students).

Table 4

Sociodemographic characteristics

		Total	(1) Low CR	(2) High PCR–Low SCR	(3) Low SCR–High PCR	(4) High CR	χ^2	*p*
Gender (*n*)	Male	99 (35.23%)	12 (22.64%)	44 (44.44%)	17 (25.76%)	26 (41.27%)	11.95	.008
	Female	175 (62.28%)	39 (73.58%)	50 (50.51%)	49 (74.24%)	37 (58.73%)		
Age	*M* (*SD*)	23.87 (2.276)	24.38 (2.177)	24.08 (2.368)	23.21 (2.004)	23.79 (2.363)	9.922	.019
	Mdn	24	24	24	23	24		
University degree level (*n*)	Bachelor	77 (27.40%)	16 (30.19%)	24 (24.24%)	23 (34.85%)	14 (22.22%)	3.393	.335
	Masters	204 (72.60%)	37 (69.81%)	75 (75.76%)	43 (65.15%)	49 (77.78%)		
Previous work experience (*n*)	Yes	249 (88.61%)	47 (88.68%)	90 (90.91%)	55 (83.33%)	57 (90.48%)	2.557	.465
	No	32 (11.39%)	6 (11.32%)	9 (9.09%)	11 (16.67%)	6 (9.52%)		

Note. CR = Career Resources referring to both psychological and social career resources. PCR = Psychological Career Resources. SCR = Social Career Resources.

In further assessment of the relationships between sociodemographic variables and cluster memberships, the results of the multinomial logistic regression (with Cluster 1 as the reference category) revealed a statistically significant model. In other words, the inclusion of the sociodemographic variables as predictors in the model showed a better fit with the data in contrast to a null model, χ^2 (12) = 27.382, p = .007. In line with the previous results, gender, χ^2 (3) = 13.557, p = .004, and age, χ^2 (3) = 10.215, p = .017, were statistically significant predictors of cluster membership. To elaborate, males have increased odds of belonging to Cluster 2 (High PCR–Low SCR), B = 1.190, p = .003, 95% CI (1.494, 7.226), and Cluster 4 (High CR), B = 1.021, p = .019, 95% CI (1.185, 6.497) over Cluster 1 (Low CR). Furthermore, older university students have increased odds of belonging to Cluster 1 (Low CR) over Cluster 3 (Low PCR–High SCR), B = −0.298, p = .004, 95% CI (0.606, 0.909) and Cluster 4 (High CR), B = −0.254, p = .013, 95% CI (0.635, 0.949). University year levels and work experience were not significantly associated with cluster membership.

Profile Comparisons

To address the second research question, the mean scores of two dimensions of career insecurity (i.e., career opportunities and contractual employment conditions) and employability were compared between the four identified clusters. Checking for the assumption of equal variances, the results of Levene's test were nonsignificant for all dependent variables: career insecurity–career opportunities, F(3,277) = 1.916, p = .127; career insecurity–contractual employment conditions, F(3,277) = .781, p = .506; and employability, F(3,277) = 1.152, p = .329. The assumption of equal variances was satisfied in this sample. The results of the one-way analysis of variance (ANOVA) showed significant differences in both dimensions of career insecurity, career opportunities, F(3,277) = 14.734, p < .001, and contractual employment conditions, F(3,277) = 17.170, p < .001, and in

employability, $F(3,277) = 20.438$, $p < .001$, among the clusters. A Tukey HSD post hoc test was performed. Table 5 presents the results of the ANOVA and post hoc comparisons.

A pattern in the cluster mean differences can be observed in the career insecurity scores. Specifically, Clusters 1 (Low CR) and 3 (Low PCR–High SCR) scored significantly higher in both dimensions of career insecurity compared to Clusters 2 (High PCR–Low SCR) and 4 (High CR). However, no significant differences in the career insecurity dimensions were found between Clusters 1 (Low CR) and 3 (Low PCR–High SCR). Similarly, no significant differences in both dimensions of career insecurity were found between Clusters 2 (High PCR–Low SCR) and 4 (High CR). Considering these results, Clusters 1 (Low CR) and 3 (Low PCR–High SCR) can be noted to share a similar characteristic of having low scores on two psychological career resources (i.e., future positive time perspective and resilience). Individuals with lower levels of these resources are likelier to feel more insecure about certain aspects of their future careers (i.e., career opportunities, contractual employment conditions) in contrast to those with higher levels of psychological career resources.

Regarding employability, the mean score of Cluster 4 (High CR) was significantly higher than the mean scores of all the other clusters. Additionally, the employability mean score of Cluster 2 (High PCR–Low SCR) was significantly higher than that of Cluster 1 (Low CR). No significant differences in employability mean scores were found between Clusters 2 (High PCR–Low SCR) and 3 (Low PCR–High SCR). Furthermore, no significant differences in employability mean scores were found between Clusters 1 (Low CR) and 3 (Low PCR–High SCR). These results highlight the relevance of both psychological and social career resources in nurturing employability among university students.

Table 5

Means, F values, and Tukey HSD post hoc comparisons of career insecurity and employability across clusters

	Total		(1) Low CR		(2) High PCR Low SCR		(3) Low PCR High SCR		(4) High CR		*F*	Post hoc
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
CI: Career opportunities	3.093	0.846	3.528	0.691	2.806	0.814	3.394	0.734	2.861	0.881	14.734 **	1, 3 > 2, 4
CI: Contractual employment conditions	3.408	0.798	3.892	0.694	3.174	0.742	3.663	0.672	3.103	0.823	17.170 **	1, 3 > 2, 4
Employability	3.425	0.699	3.060	0.701	3.349	0.642	3.339	0.549	3.940	0.652	20.438 **	4 > 3, 2 > 1

Note. CI = Career Insecurity. CR = Career Resources referring to both psychological and social career resources. PCR = Psychological Career Resources. SCR = Social Career Resources.

** $p < .01$

Discussion

This study's aims were to explore the profiles of career resources among university students and their differences in relation to career insecurity and employability. Correlation analysis revealed that resourceful people tended to perceive less career insecurity and more employability. This was particularly true for psychological resources, whereas social career resources showed stronger relations to employability than career insecurity. These findings could suggest that respondents considered social career resources to have more instrumental purposes instead of emotional ones. Indeed, people who felt their careers were supported by their university and personal networks may have higher expectations of successfully gaining a job. At the same time, however, they appeared to perceive their networks as insufficient in reducing their worries about their future careers.

Regarding the first research question, the results of the cluster analysis revealed four career resources profiles. In these profiles, different levels of psychological career resources (i.e., present positive time perspective, future positive perspective, resilience) and social career resources (university career support, social career support, studies challenge) were observed. Specifically, the Low CR profile (i.e., Cluster 1) was the smallest group in the study and was characterized by low levels of both psychological and social career resources. In contrast, the High CR profile (i.e., Cluster 4) was characterized by high levels of both psychological and social career resources. These two profiles align with the postulations of the COR theory (Hobfoll, 1989) and career resources model (Hirschi, 2012), which suggest the hindrance or promotion of resources based on the absence or existence of other resources. It is worthwhile to consider that Cluster 1 has the lowest levels of all career resources, except resilience. According to the COR theory (Hobfoll, 1989), these students are more exposed to the risk of resource loss, and, for this reason, they could have developed the ability to deal with adversity.

The other two career resources profiles that emerged in the analysis represented the next highest levels of career resources after the High CR profile, but only in one category of career resources. To elaborate, the High PCR–Low SCR profile (i.e., Cluster 2) exhibited high levels of present positive time perspective, future positive time perspective, and resilience, but low levels of university career support, social career support, and studies challenge. Additionally, this profile is noteworthy because it comprises the largest group in the study, hinting that the majority of the examined university students rely more on their psychological career resources rather than their social career resources. One explanation for this finding can be attributed to university students' perceptions that the social relations surrounding them provide career support that still adheres to normative or linear career trajectories (e.g., higher education will progress to stable or long-term employment; Brzinsky-Fay & Solga, 2016). Instead, university students may be seeking more social career resources that acknowledge the individualized nature of modern career paths and can cater to different kinds of routes or attempts to establish themselves in the modern labor market (Cebulla & Whetton, 2018; Schoon & Silbereisen, 2009). Another explanation could be that university students have already maximized the career support they receive from their current social relations and thus have a necessity to build and establish new social relations to gain further career support (McArdle et al., 2007; Wethington & Kessler, 1986).

The last profile showed an opposite pattern in its career resources compared to the High PCR–Low SCR profile. Specifically, the Low PCR–High SCR profile (i.e., Cluster 3) was noted to have high levels of university career support, social career support, and studies challenge, but low levels of future positive time perspective and resilience. Interestingly, an average level of present positive time perspective was observed in the Low PCR– High SCR profile. This could mean that a supportive social context can ascribe and maintain a positive attitude toward the present. Moreover, considering three out of four career resources profiles

were characterized by average-to-high levels of this career resource, the present positive time perspective may be implied to be a prevalent psychological career resource among university students. These individuals' positive perceptions and feelings of their present can allude to their attempts to relate their behavior with the present temporal context through exploration and engagement with their environment (Anagnostopoulos & Griva, 2012; Park et al., 2017). This is an interesting result considering the differing age trends found in previous research regarding the salience of present and future time orientations among young adults (e.g., Praskova & Johnston, 2021; Steinberg et al., 2009).

Regarding gender differences in our results, even though the general sample was primarily composed of women (62.28%), females were overrepresented in the Low CR (Cluster 1) and High SCR–Low PCR (Cluster 3) profiles. These results seem to imply that, educational level being equal, females possess fewer career resources, especially psychological ones, than males to build up their professional development. The low levels of career resources in the low CR profile are particularly concerning for women because previous literature has found women's career success to be associated with their ability to manage career setbacks and barriers, which unfortunately occur more frequently in women's professional development (e.g., Koekemoer et al., 2023). Concerning the High SCR–Low PCR profile, it was surprising to find that this cluster was composed mainly of women. In general, females have reported a lack of support, role models, and mentors during the school-to-work transition (Greer & Kirk, 2022). The gender difference observed in the High SCR–Low PCR profile can be attributed to the present study's focus on the support received from one's university and studies. In Italy, girls currently exceed boys in registering for university and obtaining degrees (Salmieri, 2022), so we can expect their higher education experiences to provide them with valuable support in their career development. However, there is still little evidence of the long-term effect of university support on career achievements.

In relation to the second research question, the results gave interesting insights into how university students' career insecurity and employability can differ based on combinations of existing and/or absent career resources. The study findings revealed that the career resources profiles that reported high scores on all three psychological career resources (i.e., High CR, High PCR–Low SCR) experienced significantly lower career insecurity compared to other profiles. These results highlight the importance of the present positive time perspective, future positive time perspective, and resilience as resources among university students to successfully cope with their career insecurity. Possessing positive thoughts and feelings about the present and the future, as well as resilience amidst adversity, can aid persons at the onset of their careers to tenaciously confront worrisome or undesirable aspects of their future careers (e.g., career opportunities, contractual employment conditions).

The impact of social career resources becomes more evident when interpreting the differences between career resources profiles on employability. The High CR profile had the highest employability score compared to all other profiles. In line with previous findings in the literature (e.g., Jabeen et al., 2022), this result underscores the relevance of accumulating both psychological and social career resources to enhance the employability of university students. However, when comparing profiles that possess high levels of career resources only in one category, high levels of psychological career resources (i.e., High PCR–Low SCR profile) had a more significant impact on employability. Specifically, individuals with this profile demonstrated higher employability than those with low levels of all career resources (i.e., Low CR profile). In a similar light as the profile comparison results for career insecurity, it is implied that psychological career resources play a key role in university students improving the qualities and competencies necessary for employment.

Significant differences in both career insecurity and employability were not observed between individuals who possess only high levels of social career resources (i.e., Low PCR–

High SCR profile) and individuals who possess low levels of both psychological and social career resources (i.e., Low CR profile). These nonsignificant findings may be connected with the foci of the scales that were used in this study. In particular, university career support, social career support (e.g., family and friends), and studies challenge were measured as university students' social career resources and refer more closely to the concept of "strong ties" of social capital development (Tomlinson et al., 2017). Whereas these strong ties can facilitate immediate access to job openings or employment opportunities (Tomlinson et al., 2017), the consideration of "weak ties" (i.e., the thin spread of social contacts and connections that an individual acquires; Granovetter, 1985) may be necessary to produce a significant impact on university students' career insecurity and employability. Weak ties that are composed of wide associations and networks are argued to increase university students' confidence in their future employment by gaining insider knowledge on job opportunities and establishing new relationships with targeted employers (Tomlinson et al., 2017). In the context of coping with career insecurity and promoting employability, examining both strong ties and weak ties of university students may better clarify the relevance of social career resources, which have been previously associated with positive career outcomes (e.g., Peng, 2019; Shiyuan et al., 2022).

Limitations and Future Research Directions

Certain limitations of this study need to be noted. Self-report measures were used in this research and may have been subject to reporting bias. In relation to the generalizability of the research findings, the study had a heterogenous sample with more than half the participants originating from Italy and the rest of the participants coming from various countries. The majority of the sample was also female, and almost half the sample comprised second-year master's degree students. This limits the interpretation of the analysis of gender and university year levels as predictors of cluster membership in the four career resources

profiles. Thus, more studies with a better representative sample of university students are necessary to gain more accurate insights into the relationships between sociodemographic characteristics and cluster membership. In addition, succeeding research can extend the sample demographics and examine the career resources profiles of early career individuals as well (e.g., fresh graduates, job seekers, new workers). The present study also employed a cross-sectional research design in which the effects of common method variance cannot be ruled out. Further studies can carry out the data collection in waves to better clarify the impact of career resources profiles on outcome variables, which can also consider other individual outcomes such as job performance, career success, and psychological wellbeing.

The cluster solution that emerged in the results was based on the variables (i.e., psychological and social career resources) included in the analysis. If future research were to consider other career resources (e.g., human capital resources, identity resources; Hirschi, 2012), a different cluster solution may be produced that can lead to additional insights into university students' resource accumulation and career resources profiles. Relatedly, further research that hypothesizes career resources profiles based on the frameworks of resource theories (e.g., Hirschi, 2012) can also apply latent profile analysis, which, in contrast to this study's sample size, should follow the minimum sample size recommendation of 500 for analysis (Nylund et al., 2007). Future research can also employ a longitudinal design to better understand the mechanism of university students' accumulation of career resources over time. In doing so, a deeper understanding can be attained of how career resources profiles emerge and how stable these career resources profiles are across a period of time.

Implications

In spite of certain limitations, the study offers meaningful contributions to the current research on careers. Four career resources profiles unique to university students were identified by considering their psychological and social career resources. In addition, these

career resources profiles were assessed in accordance with the postulations of resource theories (Hirschi, 2012; Hobfoll, 1989) in which career insecurity was framed as a threat to resource loss and employability as an outcome of resource gain. The results highlight the roles that career resources play for university students to successfully cope with career stressors; namely, the presence or absence of psychological and social career resources can make a difference in individuals' experiences of career insecurity at the beginning phases of their careers. Time perspective and resilience were found to be essential coping resources for university students, especially in confronting uncertain aspects of their future careers. Analogous to previous career research (e.g., Akkermans & Kubasch, 2017), these relevant findings on psychological career resources suggest that an agentic perspective may be necessitated to better comprehend university students' coping responses toward career stressors. At the same time, the study's findings also underscore the importance of social career resources, especially when combined with psychological career resources, in promoting university students' employability. The aggregated impact of both psychological and social career resources on employability reinforces the significance of contextual factors for sustainable career development (De Vos et al., 2020).

Practical implications concern a person-centered approach in developing university students' career resources to cope with career insecurity and improve employability. One recommendation is to assess career resources prior to implementing specific interventions that would cater to university students' career insecurity and employability. Considering the unique career resources profiles observed among university students, these individuals can still differ from each other in relation to the availability of psychological and social career resources within their reach. Thus, by performing a general assessment (i.e., formally or informally) of the career resources that university students already possess or are still lacking, the development and accumulation of relevant career resources can be better targeted in

career interventions. In addition to the use of validated measures, qualitative interviews can help career counselors and guidance practitioners gain more awareness of the relevant resources that their clients enjoy and the ones they still need to attain.

In case of a lack of both psychological and social career resources, career interventions should prioritize the development of time perspective and resilience. Given these resources were highlighted as key resources for coping with career insecurity and promoting employability, the possession of a positive time perspective and resilience can better equip university students to confront their vocational tasks. Furthermore, the presence of these psychological career resources can lead to the acquirement of social career resources and help improve the employment potential of university students in the labor market (Forrier & Sels, 2003). Lastly, universities, employment centers, and organizations are encouraged to invest in supporting the career development of university students in order to decrease their career insecurity and increase their employability (e.g., Alanazi & Benlaria, 2023). In doing so, society may better reap the benefits and potential that university students can bring as major members of the modern workforce.

Conclusion

This study focused on university students' career resources, which protect them from the threat of resource loss induced by career insecurity and bolster resource gain such as employability in the modern career environment. By employing cluster analysis, four profiles of career resources were identified among university students based on the level of psychological (i.e., time perspective, resilience) and social career resources they possessed. The profiles that emerged were characterized by (a) low career resources; (b) high career resources; (c) high psychological career resources–low social career resources; and (d) low psychological career resources–high social career resources. These profiles were found to differ with regard to career insecurity and employability. The profiles that had high levels of

psychological career resources, including a combination of both high psychological career resources and high social career resources, perceived lower levels of career insecurity and higher levels of employability in contrast to other career resources profiles. The findings of this research reinforce the assumptions of resource theories (e.g., career resources model, COR theory; Hirschi, 2012; Hobfoll, 1989) that place emphasis on the accumulation of career resources to successfully cope with a career stressor and enhance employment prospects among university students. The significant roles that psychological and social career resources play in the research findings also highlight the interplay of agency and contextual factors in the career development of the youngest and newest entrants in the workforce. In conclusion, this research encourages practitioners to take a person-centered approach in supporting university students to enhance their career resources.

CHAPTER 3

Study 2

Coping with career insecurity in the early career stage: The moderating role of ambiguity tolerance

Antonio, A. A., van Hooft, E. A. J., & Chiesa, R. Coping with career insecurity in the early career stage: The moderating role of ambiguity tolerance. *Manuscript invited to revise and resubmit.*

Abstract

Career insecurity is an important issue for individuals in early career stages. On the basis of stress and resource theories, we postulate career insecurity as a stressor that initiates the use of coping strategies (i.e., approach and avoidance coping), depending on personal resources such as ambiguity tolerance (i.e., preference or aversion to ambiguity). We further posit that approach and avoidance coping have consequences for psychological wellbeing and subjective career success. Survey data were collected at two timepoints with a one-month timespan among early career individuals in Italy (N = 411). Path analyses showed that career insecurity related negatively to approach coping and positively to avoidance coping. Ambiguity tolerance played a moderating role in which preference to ambiguity weakened the career insecurity-avoidance coping relationship. Furthermore, approach coping mediated the negative relationships between career insecurity and the two outcomes (i.e., psychological wellbeing, subjective career success). The study uncovers the unique roles of coping strategies and personal resources in the associations between career insecurity and individual outcomes in the early career stage. The findings suggest that promoting ambiguity tolerance and a balanced use of both avoidance and approach coping may reduce the maladaptive outcomes of career insecurity among early career individuals.

Keywords: career insecurity, approach coping, avoidance coping, ambiguity tolerance, psychological wellbeing, career success

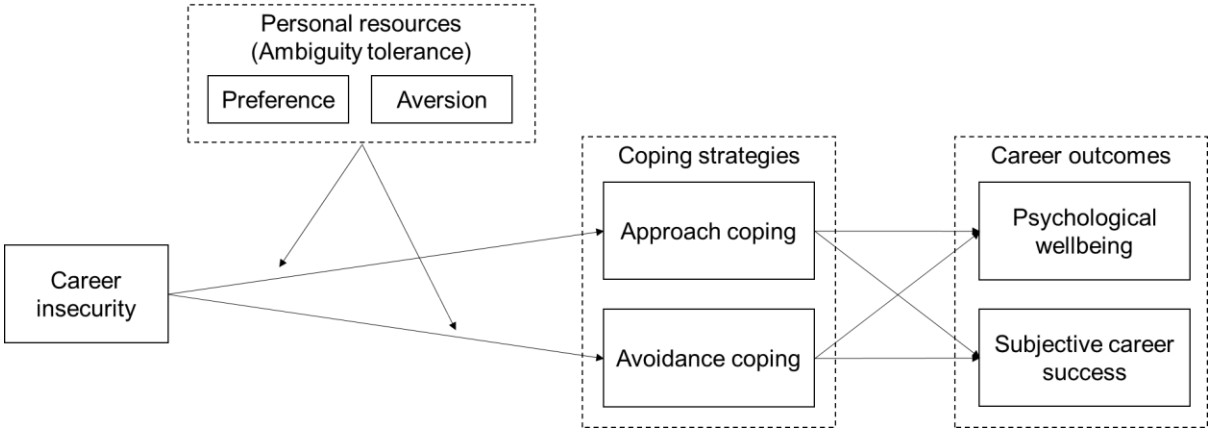
Introduction

Individuals in early career stages are highly vulnerable to the unpredictable conditions of the current labor market because they need to establish themselves in the workforce while still exploring different career opportunities (Kalleberg, 2020; Loughlin & Barling, 2001). Alternatives to precarious employment conditions have also become less guaranteed, resulting in experiences of heightened insecurity even among highly educated individuals (Rouvroye & Liefbroer, 2023). Given the risks that young people face in the labor market (Symeonaki et al., 2019), it is important to investigate how individuals in the early career stage can confront or cope with the career insecurity they are facing.

Although previous studies explored various coping activities or strategies in the context of career insecurity (Smith et al., 2023; Tien et al., 2005), their effectiveness has yet to be clarified. In the present study, we distinguish between two categories of coping strategies (i.e., approach and avoidance coping) in the context of career insecurity and examined their effectiveness as related to psychological wellbeing and career success. Furthermore, we consider the role of individual characteristics, namely ambiguity tolerance, to better understand individuals' use of approach and avoidance coping when dealing with career insecurity. Integrating Lazarus and Folkman's (1984) transactional theory of stress and coping and Hobfoll's (1989) conservation of resources theory, we aim to answer three research questions: (1) How does career insecurity relate to the approach and avoidance coping strategies of early career individuals?; (2) Does the use of approach and avoidance coping in response to career insecurity depend on early career individuals' levels of ambiguity tolerance?; (3) How do career insecurity and coping strategies relate to the psychological wellbeing and subjective career success of early career individuals? Figure 1 illustrates our conceptual model of coping with career insecurity.

Figure 1

Conceptual model of coping with career insecurity



This study contributes to the career insecurity literature by proposing and testing a model of career insecurity and coping, with the aim of providing insights on the adaptiveness of the strategies used by early career individuals to deal with career insecurity. Practically, our findings provide insights for tailoring interventions on addressing career insecurity in the early career stage.

Career Insecurity

Career insecurity has been defined as "an individual's thoughts and worries that central content aspects of one's future career might possibly develop in an undesired manner" (Spurk et al., 2022, p. 257). Career insecurity is a multidimensional construct addressing different content domains that are important in people's career development. People's primary motivators in work (e.g., pay, promotion, status) change as they transition through career stages (Sterns & Miklos, 1995; Unite et al., 2012). Therefore, certain domains or dimensions of career insecurity become more (or less) relevant to individuals depending on their career stage. For example, career advancement and career development opportunities are important aspects for individuals in the early career stage (Carlson & Rotondo, 2001; Conway, 2004). Additionally, difficulties of entering the labor market and high risk of precarious employment are central worries among early career individuals, especially for

those who invested in higher education (Tsai et al., 2017; Robst, 2007). In the present study, we therefore focus on career opportunities, contractual employment conditions, employment environment, and professional education training as important dimensions of career insecurity among early career individuals.

In line with the idea that career insecurity is a career-related stressor (Spurk et al., 2022), our model of coping with career insecurity is grounded in stress theories. Specifically, Lazarus and Folkman's (1984) transactional model of stress and coping asserts that individuals are constantly appraising stimuli within their environment. Particularly, primary appraisal determines the meaning and significance of a specific individual/environmental transaction to an individual's wellbeing. Smith and Lazarus (1990) identified two components of primary appraisal: motivational relevance and motivational (in)congruence. While motivational relevance indicates the relevance of a situation for personal goals, motivational incongruence is conceptualized as a discrepancy between the present and the desired situation (Smith & Kirby, 2011).

We suggest that career insecurity is an issue of motivational incongruence (Smith & Kirby, 2011) as individuals experiencing career insecurity find themselves in an important yet undesired situation, especially in terms of their personal career goals. The distress that arises from appraising career insecurity as a threat initiates the use of coping strategies in managing emotions or addressing the stressor itself (Lazarus & Folkman, 1984).

Coping Strategies

Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioral efforts to manage external and/or internal demands that are appraised as taxing or exceeding the resources of a person" (p. 141). It has also been characterized as "one's efforts to reduce the magnitude of the discrepancy" between one's desired and present situation (Smith & Kirby, 2011, p.11). An influential classification of coping strategies is based on the

focus of coping (Moos & Holahan, 2003), distinguishing between approach and avoidance coping. Individuals can approach a problem and make active efforts to resolve it (i.e., approach coping) or avoid the problem and focus on managing the associated emotions (i.e., avoidance coping; Moos & Holahan, 2003). Approach coping includes strategies such as planning, positive reframing, and active coping, whereas avoidance coping includes strategies such as self-blame, venting, denial, and self-distraction (Solberg et al., 2022).

In response to career insecurity, individuals can engage in approach and avoidance coping strategies. Lazarus (1991) contended that the type of coping strategies that people use depends on their (appraisal or) evaluation of their coping options such as their available resources. Hobfoll's (1989) conservation of resources theory also emphasizes the importance of resources that individuals possess to successfully cope with a stressor. Resources include personal resources, referring to personal traits or characteristics that aid in stress resistance (Hobfoll, 1989). Integrating the transactional model of stress and coping with conservation of resources theory, we propose that the use of approach and avoidance coping strategies in response to career insecurity would be modulated by the personal resources that individuals possess. Specifically, ambiguity tolerance is considered an important personal resource in the context of career insecurity.

Ambiguity Tolerance

Ambiguity tolerance is a personal resource referring to a "tendency to react to perceived ambiguity with greater or lesser intensity" (McLain et al., 2015, p. 2). It has been significantly related to career indecision (Xu & Tracey, 2015, 2017) in which individuals with higher ambiguity tolerance are likelier to consider multiple contextual interpretations and adopt better strategies to cope with stress (Iannello et al., 2017). Paralkar and Knutson (2023) found that students who cannot tolerate ambiguity used less approach and more avoidance strategies to cope with academic stress.

McLain (1993) conceptualized ambiguity tolerance as a multidimensional construct . In the present study, we considered two dimensions of ambiguity tolerance, i.e., preference and aversion, in examining their moderating role in the relationship between career insecurity and coping. These two dimensions are viewed as distinct concepts rather than as two sides of a continuum because low levels of aversion do not necessarily motivate people to confidently approach ambiguity (Xu & Tracey, 2015). Similarly, it can be argued that low levels of preference do not entail a complete unwillingness to confront ambiguity. Based on Hobfoll's (1989) theory, we argue that ambiguity tolerance is a personal resource that helps reduce the negative emotions induced by career insecurity and facilitates individuals, specifically those who show a preference to ambiguity, to invest in approach coping strategies. In contrast, individuals who are aversive to ambiguity may perceive it as a threat and take a more "defensive posture" to preserve their current resources and respond with avoidance coping (Xu & Tracey, 2017).

Thus, we expected the positive relationship between career insecurity and approach coping to be stronger among individuals who have a higher preference to ambiguity (Hypothesis 1a) and weaker among individuals who have a higher aversion to ambiguity (Hypothesis 2a). Additionally, we expected the positive relationship between career insecurity and avoidance coping to be weaker among individuals who have a higher preference to ambiguity (Hypothesis 1b) and stronger among individuals who have a higher aversion to ambiguity (Hypothesis 2b).

Outcomes of Coping

Previous research highlighted the importance of individuals' coping strategies to decrease the negative consequences (e.g., poor wellbeing, low career satisfaction) caused by a stressor (e.g., Penley et al., 2002). Within the context of career insecurity, we examined the effectiveness of coping strategies by considering its implications on two outcomes:

psychological wellbeing and subjective career success. Approach coping is often considered as a more adaptive orientation than avoidance coping (e.g., Taylor & Stanton, 2007). Approach coping allows individuals to make active efforts to confront and resolve the problem, positively affecting their wellbeing (Juth et al., 2015; Kirchner et al., 2010) and contributing to their sense of accomplishment and satisfaction with their careers (Colakoglu, 2011). Avoidance coping, in contrast, disconnects the individual from the problem and becomes maladaptive when used as a repeated strategy that prevents further attempts of coping (Biggs et al., 2017). Continuous use of avoidance coping can increase individuals stress levels over time (Biggs et al., 2017) and can also hinder individuals from attaining subjective career success (Colakoglu, 2011). Thus, we expected approach coping to relate positively to psychological wellbeing (Hypothesis 3a) and subjective career success (Hypothesis 4a), and avoidance coping to relate negatively to psychological wellbeing (Hypothesis 3b) and subjective career success (Hypothesis 4b).

Mediating Role of Coping

Trevor-Roberts (2006) contended that it is an individual's coping response to career insecurity that can greatly affect their general wellbeing and career success. In the present study, we are interested in extending previous findings on the outcomes of career insecurity (Mauno et al., 2023; Spurk et al., 2022) by examining the relationships between career insecurity and coping strategies in consideration of the moderating role of ambiguity tolerance. In line with the previously explained arguments, we further examined if coping strategies (i.e., approach and avoidance coping) mediate the associations of career insecurity with psychological wellbeing and subjective career success. Lastly, we examined moderated mediation effects based on the expected relationships of the variables.

Method

Participants and Procedure

The study participants were individuals in the early career stage as denoted by their age, i.e., ≤ 30 years old, which served as the participant criterion for this research (cf. Conway, 2004; Symeonaki et al., 2019). The study was approved by the ethical committee of the University of Bologna, Italy (Protocol number 0061127, 7 March 2023). The research design was a two-wave study in which quantitative survey data were collected using the Qualtrics platform at two timepoints with a one-month timespan (cf. Diener et al., 2018) from March to July 2023. Only participants who provided their informed consent were included in the study.

The Time 1 (T1) survey was promoted in the authors' networks and by two Italian organizations that offer career services to young people using an anonymous link and QR code. Of the 736 individuals who accessed the survey and provided their informed consent, 411 met the inclusion criteria and completed the T1 survey. Of these, 64% were female, 33.3% male, and 2.7% did not indicate their gender. The age ranged from 17 to 30 years (with a median of 24; *SD* = 2.21). In terms of their current activities, the majority of the participants were either studying only (25.1%), working only (16.3%), or doing both (14.1%). Some participants were also engaged in job search activities, i.e., 7.8% participants were engaged only in job search activities, 11.2% were engaged in job search and study, 5.6% were engaged in job search and work, and 5.6% were engaged in job search, study, and work. The remainder of the participants either identified as NEET (i.e., not in education, employment, or training; 10.2%) or did not indicate their current activities (4.1%).

One month later, participants were contacted to answer the Time 2 (T2) survey using the e-mail addresses they provided at T1. In total, 156 participants completed the T2 survey (38.0% response). To check for selective nonresponse, we compared respondents and non-

respondents in the T2 sample (n = 156 vs. n = 255), using a logistic regression with gender, age, neuroticism, and the T1 psychological variables. Some signs of nonrandom attrition were observed for career insecurity and preference to ambiguity. Separate t-tests showed that individuals with higher levels of career insecurity, $t(403) = -2.70$, $p = .007$, and preference to ambiguity, $t(388) = -2.71$, $p = .007$, were more likely to remain in the sample. According to a post hoc power analysis conducted using G*Power 3.1.9.7 (Faul et al., 2009), we have 95% power to detect a medium effect size at $\alpha = .05$ (Cohen, 1988).

Measures

The original English career insecurity and ambiguity tolerance measures were translated into Italian using translation-backtranslation procedures. Unless indicated otherwise, measures used a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Table 1 displays the Cronbach's alphas.

Career insecurity

We measured dimensions of career insecurity that are relevant to early career individuals at T1, using the 4-item Career opportunities dimension and the 4-item Contractual employment conditions dimension from the Multidimension Career Insecurity Scale (Spurk et al., 2022) and the 5-item Employment Environment dimension and 4-item Professional Education Training dimension from the Career Anxiety Scale (Tsai et al., 2017),

We assessed the factor structure and dimensionality with confirmatory factor analysis (CFA) in Mplus 8.9 (Muthén & Muthén, 2017). Good model fit was indicated by threshold values CFI ≥ .90, RMSEA ≤ .08, and SRMR ≤ .08 (Hu & Bentler, 1999). The hypothesized four-factor model with a latent second order factor showed an acceptable fit, CFI = .912, SRMR = .058, RMSEA = .083 (90% CI = .075 to .091).

Coping

The Italian version (Monzani et al., 2015) of Carver's (1997) situational Brief COPE was used to measure coping strategies at T1. Seven subscales from the Brief COPE with a total of 14 items were included. The instructions of the original Brief COPE were adapted to focus on career insecurity (see supplementary material). The response format was a Likert scale ranging from 1 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*). Following Carver et al.'s (1989) recommendations, we conducted CFA to assess the two-factor structure that characterize early career individuals' coping strategies (i.e., approach and avoidance coping). After removing one item from the venting subscale, the analysis results showed acceptable fit: CFI = .964; SRMR = .042; RMSEA = .043 (90% CI = .029 to .057). Avoidance coping consisted of 7 items regarding denial, self-blame, self-distraction, and venting, whereas approach coping consisted of 6 items regarding active coping, planning, and positive reframing.

Ambiguity tolerance

At T1, we measured ambiguity tolerance using the 6-item preference subscale and the 6-item aversion subscale of the Career Decision Ambiguity Tolerance Scale (Xu & Tracey, 2015). CFA showed acceptable fit for the two-factor model: CFI = .919; SRMR = .054; RMSEA = .064 (90% CI = .052 to .077).

Psychological wellbeing

The Italian version (Politi et al., 1994) of the 12-item General Health Questionnaire (GHQ; Goldberg, 1988) was used to measure general psychological health at T2 with a Likert response scale ranging from 0 (*Not at all*) to 3 (*More than usual*).

Subjective career success

The Italian version (Sarchielli & Toderi, 2005) of Greenhaus et al.'s (1990) 5-item career satisfaction scale was used to measure subjective career success at T2

Control variables

We included age (in years), gender, and neuroticism (measured using a short version of the Big Five Inventory; Guido et al., 2015; Rammstedt & John, 2007) as potential control variables. The use of avoidant and emotion-focused strategies has been noted to decrease with age, while the use of problem-oriented strategies increases with age (e.g., Jenzer et al., 2019). Some studies have also suggested that women use more avoidance or emotion-focused coping and experience greater psychological distress compared to men (e.g., Panayiotou et al., 2017). Neuroticism has also been associated with avoidance coping, psychological distress, and low subjective career success (e.g., Boyes & French, 2012; De Jong et al., 1999; Ng & Feldman, 2014).

Table 1

Means, standard deviations, and correlations

		N	*M*	*SD*	α	1	2	3	4	5	6	7	8	9
Time 1 variables														
1	Gender[a]	411												
2	Age	411	23.998	2.207		-.189**								
3	Neuroticism	397	3.093	1.023		.244**	-.078							
4	Career insecurity	405	3.121	0.846	.928	.154**	.000	.295**						
5	Preference to ambiguity	411	4.159	0.604	.706	.098	-.023	-.085	-.105*					
6	Aversion to ambiguity	411	2.738	0.753	.728	-.053	-.002	.273**	.496**	-.298**				
7	Approach coping	405	2.976	0.565	.768	.043	.064	-.187**	-.163**	.386**	-.306**			
8	Avoidance coping	405	2.318	0.570	.693	.114*	-.084	.356**	.370**	-.177**	.371**	-.093		
Time 2 variables														
9	Psychological wellbeing	156	2.513	0.920	.867	-.028	.097	-.108	-.327**	.087	-.242**	.276**	-.219**	
10	Career satisfaction	156	1.571	0.576	.881	-.028	-.093	-.179*	-.252**	-.009	-.124	.241**	-.146	.418**

Note. [a] 0 = Male, 1 = female.

* $p < .05$ (2-tailed).

** $p < .01$ (2-tailed).

Results

Table 1 presents the means, standard deviations, and correlations of the study variables. To test our hypotheses, we performed observed variable path analysis using Mplus 8.9 (Muthén & Muthén, 2017) with career insecurity as predictor, preference and aversion to ambiguity as moderators, approach and avoidance coping as mediators, and psychological wellbeing and subjective career success as outcomes. Based on their significant correlations, we included gender and neuroticism as control variables. We also report in the supplementary material the results of the analyses without control variables.

Moderating Role of Preference and Aversion to Ambiguity

Two moderation analyses were performed to test Hypotheses 1 and 2. The predictor and moderating variables were mean centered. Table 2 presents the results. In Hypothesis 1a, we expected preference to ambiguity to strengthen the positive relationship between career insecurity and approach coping. The results showed that career insecurity was not related to approach coping (β = -.085, p = .083), yet preference to ambiguity was significantly positively related to approach coping (β = .352, p < .001). The interaction of preference to ambiguity with career insecurity on approach coping, however, was not significant (β = -.079, p = .091; Hypothesis 1a not supported).

In Hypothesis 1b, we expected preference to ambiguity to weaken the positive relationship between career insecurity and avoidance coping. The results showed that career insecurity was significantly positively related to avoidance coping (β = .289, p < .001), whereas preference to ambiguity was significantly negatively related to avoidance coping (β = -.134, p = .003). Furthermore, preference to ambiguity moderated the relationship between career insecurity and avoidance coping (β = -.104, p = .022). Simple slopes analyses showed that the positive relationship between career insecurity and avoidance coping was weaker when preference to ambiguity was high (1*SD* above the mean; B = .127, p = .001) compared

to when preference to ambiguity was low (1*SD* below the mean; $B = .258$, $p < .001$; see Figure 2), supporting Hypothesis 1b.

In Hypothesis 2a, we expected aversion to ambiguity to weaken the positive relationship between career insecurity and approach coping. The results showed that career insecurity was not significantly related to approach coping ($\beta = -.023$, $p = .694$), but aversion to ambiguity was significantly negatively related to approach coping ($\beta = -.238$, $p < .001$). The interaction of aversion to ambiguity with career insecurity on approach coping, however, was not significant ($\beta = -.091$, $p = .062$; Hypothesis 2a not supported).

In Hypothesis 2b, we expected aversion to ambiguity to strengthen the relationship between career insecurity and avoidance coping. The results showed that, again, career insecurity was positively related to avoidance coping ($\beta = .168$, $p = .001$), and aversion to ambiguity was also positively related to avoidance coping ($\beta = .242$, $p < .001$). However, the interaction of aversion to ambiguity with career insecurity on avoidance coping was nonsignificant ($\beta = -.045$, $p = .320$; Hypothesis 2b not supported).

Table 2

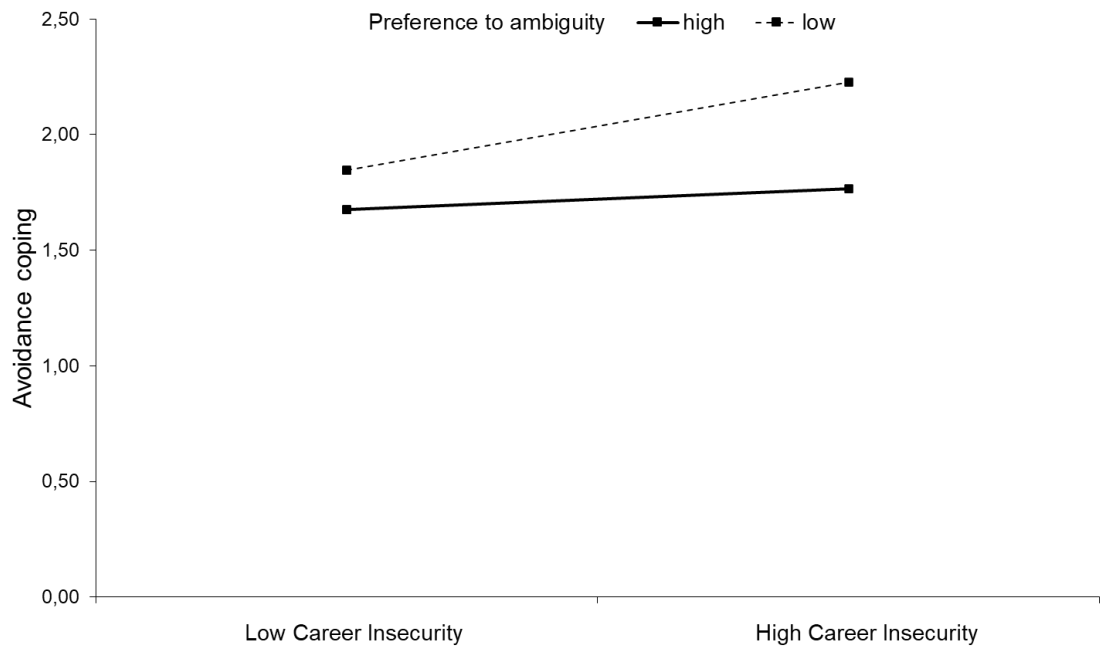
Moderation analyses results

	Approach coping				Avoidance coping			
	B	*SE*	β	*p*	*B*	*SE*	β	*p*
Preference model								
Gender	.069	.056	.059	.220	.033	.056	.027	.560
Neuroticism	-.076	.027	-.139	.005	.143	.027	.256	< .001
Career insecurity	-.055	.032	-.085	.083	.193	.032	.289	< .001
Preference	.336	.045	.352	< .001	-.131	.045	-.134	.003
Preference x Career insecurity	-.081	.048	-.079	.091	-.109	.048	-.104	.022
R^2			.190	< .001			.227	< .001
Aversion model								
Gender	.080	.059	.068	.177	.064	.056	.054	.252
Neuroticism	-.082	.029	-.151	.004	.121	.027	.217	< .001
Career insecurity	-.015	.037	-.023	.694	.112	.036	.168	.001
Aversion	-.177	.043	-.238	< .001	.184	.041	.242	< .001

Aversion x Career insecurity	-.068	.037	-.091	.062	-.035	.035	-.045	.320
R^2			.116	< .001			.241	< .001

Figure 2

Preference to ambiguity as a moderator in the relationship between career insecurity and avoidance coping



Outcomes of Coping

In Hypotheses 3 and 4, we proposed that approach and avoidance coping would relate to psychological wellbeing and subjective career success. The results are displayed in Table 3. Approach coping at T1 had a significantly positive relationship with psychological wellbeing at T2 (β = .178, *p* = .033; see Figure 3), supporting Hypothesis 3a. Avoidance coping at T1 had no significant relationship with psychological wellbeing at T2 (β = -.099, *p* = .309; Hypothesis 3b not supported). Furthermore, a significantly positive relationship was found between approach coping at T1 and subjective career success at T2 (β = .210, *p* = .019), which supports Hypothesis 4a. However, no significant relationship was found

between avoidance coping at T1 and subjective career success at T2 (β = -.015, *p* = .894), which fails to support Hypothesis 4b.

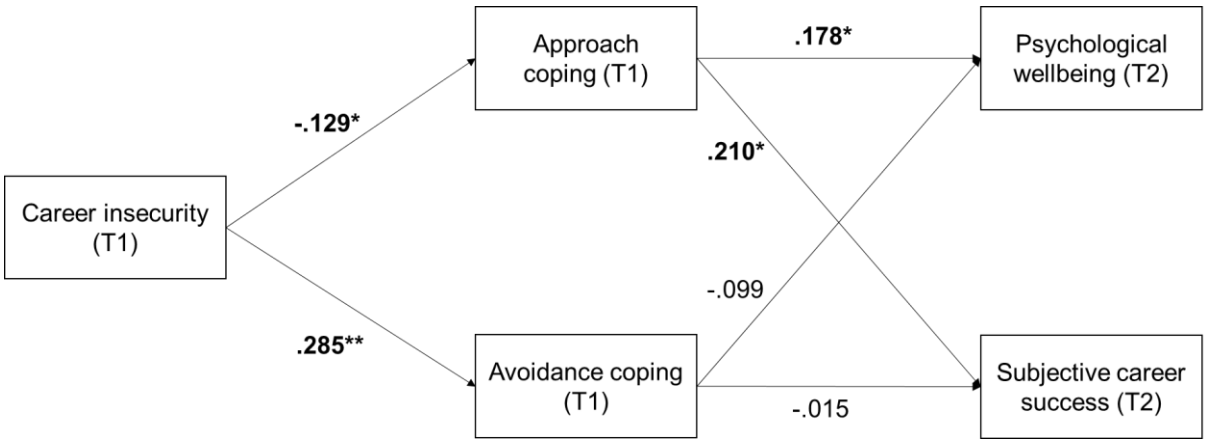
Table 3

Path analysis results predicting psychological wellbeing and subjective career success

	Psychological wellbeing				Subjective career success			
	B	*SE*	β	*p*	*B*	*SE*	β	*p*
Gender	.009	.094	.008	.920	.023	.161	.012	.884
Neuroticism	.035	.050	.062	.487	-.031	.087	-.034	.722
Career Insecurity	-.205	.065	-.306	.001	-.221	.101	-.208	.028
Approach coping	.184	.086	.178	.033	.343	.146	.210	.019
Avoidance coping	-.100	.098	-.099	.309	-.023	.176	-.015	.894
R^2			.161	.009			.117	.030

Figure 3

Mediation model of career insecurity, coping, and outcomes



Note. Standardized path coefficients are shown. T1 = Time 1. T2 = Time 2.

* $p < .05$

** $p < .01$

Path Analyses

We further tested for the indirect effects of career insecurity on psychological wellbeing and subjective career success through approach and avoidance coping using 10,000 bootstrap samples (see Table 4). The total indirect effect of career insecurity on psychological wellbeing was not significant (*B* = -.034; 95% CI [-.080, .005]). However, within a 90%

confidence interval, a significant indirect effect of career insecurity on psychological wellbeing was found via approach coping (*B* = -.015; 90% CI [-.041, -.002]) but not via avoidance coping (*B* = -.019; 90% CI [-.053, .011]). Similarly, the total indirect effect of career insecurity on subjective career success was not significant (*B* = -.033; 95% CI [-.113, .037]). However, when examining the specific indirect effects, career insecurity had a significant indirect effect on subjective career success via approach coping (*B* = -.029; 95% CI [-.084, -.002]), but not via avoidance coping (*B* = -.004; 95% CI [-.076, .058]).

Lastly, we tested for the moderated mediation effects of ambiguity tolerance (i.e., preference and aversion) and coping (i.e., approach and avoidance) in the relationships between career insecurity and the outcomes (i.e., psychological wellbeing and subjective career success). Two conditional path analyses were run using 10,000 bootstrap samples, one for preference and one for aversion. The interaction of preference to ambiguity with career insecurity was found to be not significant on approach coping (β = -.079, *p* = .213), but it was approaching significance on avoidance coping (β = -.104, *p* = .071). However, no significant conditional indirect effects were found.

Table 4

Estimates and confidence intervals of total, direct, and indirect effects for psychological wellbeing and subjective career success

Path	Lower 2.5%	Lower 5%	Point estimate	Upper 5%	Upper 2.5%
Total effects from career insecurity to psychological wellbeing	-.350	-.332	-.240	-.136	-.115
Total indirect effects	-.080	-.072	-.034	-.001	.005
Specific indirect effects					
Career insecurity → Approach coping → Psychological wellbeing	-.047	-.041	-.015	-.002	.000
Career insecurity → Avoidance coping → Psychological wellbeing	-.061	-.053	-.019	.011	.017

Direct effect of career insecurity to psychological wellbeing	-.329	-.309	-.205	-.096	-.073
Total effects from career insecurity to subjective career success	-.431	-.403	-.255	-.088	-.059
Total indirect effects	-.113	-.100	-.033	.026	.037
Specific indirect effects					
Career insecurity → Approach coping → Subjective career success	-.084	-.074	-.029	-.005	-.002
Career insecurity → Avoidance coping → Subjective career success	-.076	-.062	-.004	.048	.058
Direct effect of career insecurity to subjective career success	-.411	-.380	-.221	-.047	-.012

Discussion

Grounded in the transactional model of stress and coping (Lazarus & Folkman, 1984) and the conservation of resources theory (Hobfoll, 1989), this study examined the relationships of career insecurity with approach and avoidance coping strategies, in consideration of the moderating role of ambiguity tolerance as a personal resource (i.e., preference and aversion to ambiguity). Additionally, we assessed the mediating roles of approach and avoidance coping in the relationships between career insecurity and individual outcomes (i.e., psychological wellbeing and subjective career success).

In general, while career insecurity did not positively relate to approach coping, it was found to positively relate to avoidance coping. Though these results were not fully in line with our expectations, previous researchers have argued that the use of approach and avoidance coping strategies can depend on the perception of a stressor being controllable (e.g., Carver et al., 1989). When a stressor is perceived as controllable, people are likelier to use strategies that attempt to solve the problem (e.g., approach coping). When a stressor is perceived as uncontrollable, people are likelier to use strategies that focus on managing their

distress or emotions (e.g., avoidance coping). In the context of career insecurity, early career individuals may generally perceive themselves in a situation that is not entirely in their control, especially in the progression of their careers. Considering the high risks of unemployment, unstable employment, and turnover between employment that young people face (Okay-Somerville & Scholarios, 2014; Symeonaki et al., 2019), highly career insecure individuals likely adopt avoidance coping strategies (e.g., denial, distraction, self-blame, venting) to alleviate the short-term distress they may experience in such uncontrollable situations (Biggs et al., 2017).

Regarding the role of ambiguity tolerance as a personal resource, our findings consistently showed that ambiguity tolerance increases the use of approach coping and reduces the use of avoidance coping. However, we only found partial support for the hypothesized moderating role of ambiguity tolerance. Specifically, preference to ambiguity was shown to weaken the positive relationship between career insecurity and avoidance coping. These findings suggest the relevance of ambiguity tolerance as a personal resource for early career individuals (Hobfoll, 1989). Considering that preference for ambiguity is characterized by excitement and interest toward change and new things (Xu & Tracey, 2015), it can serve as a buffer or protective factor from the use or constant reliance on avoidance coping strategies when dealing with uncertain aspects of one's career.

Regarding the two outcomes, approach coping was found to be positively related to both psychological wellbeing and subjective career success, supporting our hypotheses. Expanding on previous research findings (e.g., Mauno et al., 2023; Spurk et al., 2022), our results showed the significant mediating role of approach coping in the negative relationships between career insecurity and both outcomes. In alignment with previous research (e.g., Tuncay & Yildirim, 2015), these results imply the importance of using approach coping strategies even in the context of career insecurity. Specifically, efforts to directly deal with

the stressor (i.e., career insecurity) can bring benefits to an individual such as improved wellbeing and positive perceptions of career success.

Implications

Our study has theoretical implications that supplement previously established models in career research (e.g., Savickas & Porfeli, 2012; Lipshits-Braziler et al., 2016). Firstly, by positing career insecurity as a stressor, we characterize the role of personal resources, specifically ambiguity tolerance, in facilitating approach and avoidance coping strategies among early career individuals. Furthermore, our study highlights the role of approach coping as an adaptive strategy that intervenes between the relationships of career insecurity and negative outcomes. Finally, we focused on a specific career stage (i.e., early career). In doing so, we were able to clarify the relevance of certain resources and strategies among these individuals, who are new entrants in the workforce that need to manage an uncertain environment (Callanan et al., 2017).

Our study also has practical implications. Career services should nurture early career individuals' ambiguity tolerance (or a preference to ambiguity). Promoting acceptance and openness to ambiguous information, especially regarding unpredictable aspects of one's career development, can benefit individuals as they navigate through the early career stage. Additionally, interventions should increase awareness that approach coping strategies (e.g., active coping, planning, positive reframing) can promote positive wellbeing and career satisfaction when dealing with career insecurity.

Limitations and Future Research Directions

Some limitations need to be considered when interpreting our findings. Firstly, self-report measures were used. Though the effect of common method variance cannot be ruled out, we tried to reduce this bias by measuring the outcome variables at a different timepoint. Secondly, participant attrition during the second wave of our data collection and the use of

convenience sampling may have reduced the representativeness of our sample. Future studies can account for a more balanced distribution by considering the gender, student or employment status, degree program or work sector, and region of the sample composition. Thirdly, our study design does not allow for causal interpretations. Longitudinal studies with multiple waves can be carried out in the future to provide further insights into the directionality of the relationships as proposed in our model. Fourthly, though our findings suggest a moderating role of ambiguity tolerance in the relationships between career insecurity and coping strategies, several interactions did not satisfy conventional significance levels. Thus, more studies are needed to replicate these findings. Future research can also investigate other personal resources (e.g., career adaptability) that can facilitate the relationship between career insecurity and coping strategies. In addition, subsequent studies may extend our conceptual model by exploring moderating effects of contextual resources (e.g., social support; environmental factors).

Conclusion

Using stress and resource theories as our theoretical bases, we tested and found some support for our model of coping with career insecurity among early career individuals. Career insecurity was related to both approach and avoidance coping, while ambiguity tolerance played a moderating role in the career insecurity-avoidance coping relationship. Approach coping was also shown to play a mediating role in the relationships between career insecurity and individual outcomes, namely psychological wellbeing and subjective career success. Our findings contribute to the literature by examining the coping strategies that are relevant in the early career stage to deal with career insecurity and its related outcomes.

CHAPTER 4

Study 3

Early career individuals' career insecurity and coping responses: A cross-country study

Antonio, A. A., & Chiesa, R. Early career individuals' career insecurity and coping responses: A cross-country study. *Manuscript under preparation*.

Abstract

Evoking stress among individuals in the early career stage, career insecurity was examined in this study based on four dimensions: employment environment, professional education training, career opportunities, and contractual employment conditions. The relations between career insecurity and coping strategies (i.e., avoidance and approach) were assessed, with ambiguity tolerance (i.e., aversion to ambiguity) considered to play a moderating role in these relationships. The indirect effects of career insecurity on psychological wellbeing and subjective career assess were also tested via the mediating roles of coping strategies. Further taking into account the national and cultural contexts of early career individuals, the levels of career insecurity, coping strategies, and ambiguity tolerance were compared between four countries in this study. Survey data were collected among early career individuals from Italy, Norway, Bangladesh, and Indonesia using a two-wave study design (N = 492). Each country subsample consisted of 123 participants. The results of the moderation analyses showed that aversion to ambiguity strengthened the positive relationship between the employment environment dimension of career insecurity and avoidance coping. Additionally, the path analyses results found both coping strategies to mediate different associations between the four career insecurity dimensions and the two measured outcomes. As for the country comparisons, the results of the one-way analysis of variance observed significant variable differences between Italy, Norway, Bangladesh, and Indonesia, with the results of exploratory analyses noting further variations in each country's variable relations. The study findings offer both theoretical and practical implications, especially in managing young people's career insecurity as they progress further in their professional development amidst the precarious nature of modern careers.

Keywords: career insecurity, coping, aversion to ambiguity, cross-country

Introduction

Precarious work has become highly prevalent among young workers, even among educated young people, and propels these individuals toward increased insecurity rather than better job prospects (e.g., Hamilton et al., 2014; MacDonald, 2017; Woodman & Wyn, 2015). Confronting different forms of uncertainty and vulnerability in the labor market, young people become vulnerable to a lack of stable occupational identities, access to a future career, and social protection (Nielsen et al., 2019; Standing, 2011). In general, the uncertainty, unpredictability, and riskiness that characterize modern careers carry negative implications for young people's wellbeing and future life outcomes (Cuervo & Chesters, 2019). In light of this issue, this study aimed to examine the career insecurity experienced by young people in the early stages of their careers, as well as the strategies they use to cope with it, based on their personal resources. Additionally, we explored the outcomes of this coping process, taking into account potential cross-country differences.

Career insecurity is defined as an individual's thought and worries about central aspects of one's future career developing in an undesired manner (Spurk et al., 2022). Previous research has posited career insecurity as a stressor and has related it to negative consequences among individuals in light of the increased uncertainty in the labor market (Inanc & Kalleberg, 2022; Mauno et al., 2023). This study focused on the dimensions of career insecurity that are considered pertinent to the developmental tasks or career-life period of early career individuals (Lent & Brown, 2013; Super et al., 1996). Unemployment and underemployment are becoming a universal experience among young people (MacDonald, 2017). These individuals feel more vulnerable to the lack of employment opportunities (Glavin & Young 2017; Inanc & Kalleberg, 2022) and the risk of working below their full capacity (e.g., utilizing less of their education, skills, training, or experience; McKee-Ryan & Harvey, 2011; Churchill & Khan, 2020). Poor remuneration and a lack of opportunities for

career advancement are two additional concerns for young people entering the labor market (Chudzikowski, 2012; Lodovici & Semanaza, 2012).

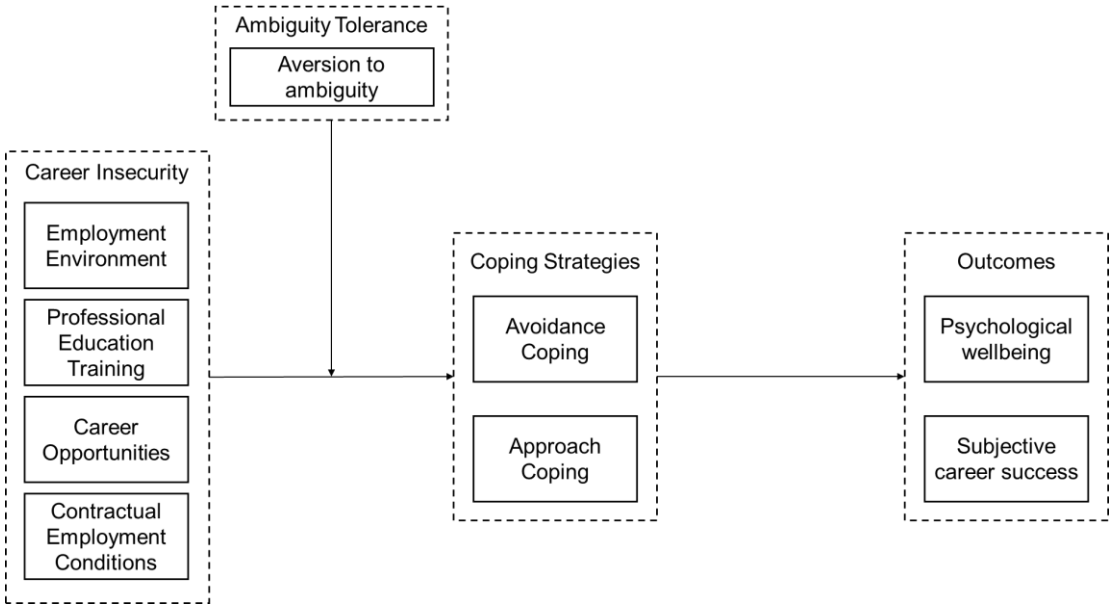
Stress theories (Hobfoll, 1989; Lazarus & Folkman, 1984) have highlighted the role of coping to manage stressors such as career insecurity, numbering a lot of strategies and resources. However, the current literature is still lacking in research that clarifies the associations between career insecurity, resources, coping strategies, and individual outcomes. We proposed to explore how early-career individuals respond to career insecurity, either by avoiding or approaching the problem, while also considering the moderating role of aversion to ambiguity, which refers to "the individual tendency to find ambiguity undesirable" (Xu & Tracey, 2017, p. 540). In addition, our study examined the intervening roles that avoidance and approach coping strategies can play in the relationships between career insecurity and two outcomes that have been previously associated with it, which are psychological wellbeing and subjective career success. Furthermore, we considered that country or contextual factors such as national welfare models and labor market policies can affect the individual experience of insecurity (Keller & Seifert, 2013; Nielsen et al., 2019), especially among early career individuals who are precariously positioned in each country's labor market (Muffels, 2013). For this reason, our study took into account the country context of early career individuals and compare the differences in career insecurity, as well as coping strategies and resources, between four countries, namely, Italy, Norway, Bangladesh, and Indonesia.

In brief, our research intended to answer three research questions: (1) Does ambiguity tolerance (i.e., aversion to ambiguity) play a moderating role in the relationships between career insecurity and coping strategies (i.e., avoidance and approach) among early career individuals?; (2) Do coping strategies play mediating roles in the relationships between career insecurity and individual outcomes (i.e., psychological wellbeing, subjective career success)

among early career individuals?; (3) Do career insecurity, ambiguity tolerance, and coping strategies among early career individuals significantly differ between countries? The proposed relationships between the variables being examined in this study are summarized in Figure 1. The results of this study have theoretical implications to the conceptualization of career insecurity by extending the propositions of current research models and presenting the implications of coping strategies and resources to mitigate the negative outcomes associated with career insecurity. In addition, by focusing on the early career stage and different country backgrounds, our study offers practical implications in the implementation of career interventions that target one of the most vulnerable groups of modern workers (i.e., young people) with respect to country nuances.

Figure 1

Conceptual model of coping with career insecurity



Coping with Career Insecurity

The conceptualization of career insecurity as a stressor can be understood using the perspectives of the transactional theory of stress and coping (Lazarus & Folkman, 1984). In line with this theory, career insecurity is argued to evoke stress among early career individuals as they regard it as a threat that impedes important goals (Lazarus, 1966, 1999).

When important goals have been harmed, lost, or threatened, individuals respond with coping strategies that enable them to manage a stressful but personally significant situation with affective, cognitive, or behavioral responses (Folkman & Moskowitz, 2004). In other words, coping strategies can serve as responses for individuals' pursuit of their goals, including opportunities for long-term growth (Amiot et al., 2008; Heckhausen et al., 2010).

Roth and Cohen (1986) characterized two kinds of coping strategies to deal with a stressor, namely, approach coping, which concerns confronting and dealing with a problem directly, and avoidance coping, which concerns evading and dealing with a problem indirectly. These two strategies may be characterized as either actively managing the source of stress and the resulting thoughts and emotions (i.e., approach coping) or disengaging or distracting the self from the source of stress and affecting only one's reactions to the situation (i.e., avoidance coping; Chamandy & Gaudreau, 2019; Spector, 2002).

The response or strategy that individuals use to cope with a stressor may be related to the nature or context of the problem (Folkman & Moskowitz, 2004). In the context of early career individuals, their precarious position in the labor market may make them feel a lack of control when confronting their career insecurity (Nielsen et al., 2019). Facing such stressors that are deemed largely uncontrollable or difficult to alter, individuals may find little instrumental value to directly deal with the problem, e.g., creating a plan (Folkman, 1984; Miller, 1990; Spector, 2002). Instead, they are likelier to rely on passive or avoidance strategies such as distraction activities as their dominant coping mode to manage their emotions or regulate their anxiety from the stressor, making themselves feel better about their present situation (Mayordomo et al., 2016; Miller, 1990; Rayburn et al., 2005; Spector, 2002). When confronting career indecision, young adults have also been demonstrated to use more avoidance coping strategies and less approach coping strategies (Lipshits-Braziler et al., 2017).

Aversion to Ambiguity

In addition to the nature of the stressor, the use of coping strategies has been contended to depend on the resources that are available to an individual. For instance, Lazarus and Folkman (1984) postulated coping strategies as efforts to manage specific demands that are appraised to exceed the resources of an individual. Furthermore, the conservation of resources theory argues that individuals who have outstretched or exhausted their resources are likelier to use more defensive strategies (Hobfoll et al., 2018). Individuals who possess greater resources, however, are suggested to manage stressful situations better (Hobfoll et al., 2018). In line with this notion, ambiguity tolerance is posited in this study as a personal resource that facilitates or hinders the use of strategies for early career individuals to cope with their career insecurity.

Ambiguity tolerance refers to individuals' perceptions and responses to situations or stimuli that are ambiguous (Budner, 1962; Furnham & Ribchester, 1995). Specifically, individuals are contended to differ on how they process or deal with unfamiliar, complex, inconsistent, or unpredictable information (Xu & Tracey, 2015). One aspect of ambiguity tolerance is aversion. Perceiving ambiguity as a source of discomfort (Budner, 1962), individuals with a high aversion to ambiguity are suggested to possess less personal resource due to their low levels of ambiguity tolerance. When faced with unclear and unstructured situations or insufficient information, ambiguity averse individuals have a higher tendency to experience stress and career indecision (Furnham & Ribchester; 1995; Xu et al., 2016). They are suggested to react negatively to ambiguous or uncertain aspects of one's future career, with high levels of worry associated with perceived lack of situation control (Budner, 1962; Endler et al., 2000). In line with the arguments of the conservation of resources theory (Hobfoll et al., 2018), ambiguity averse individuals are likelier to respond in a more protective and avoidant manner (Furnham & Ribchester; 1995; Petrocchi et al., 2022; Xu and

Tracey, 2017). Indeed, avoidance coping is argued to be used when one's emotional or cognitive resources are limited, which is applicable to individuals feeling overwhelmed with their career insecurity (Heckman et al., 2004; Suls & Fletcher, 1985).

Considering the context of a rapidly changing labor market characterized by unpredictability in people's careers paths (Trevor-Roberts, 2006), we expect individuals with a high aversion to ambiguity to use more avoidance strategies and less approach strategies to cope with their career insecurity. In other words, we hypothesize that aversion to ambiguity will moderate the relationships between career insecurity and coping strategies (Hypothesis 1). Specifically, aversion to ambiguity is expected to strengthen the positive relationship between career insecurity and avoidance coping (Hypothesis 1a). In addition, aversion to ambiguity is expected to strengthen the negative relationship between career insecurity and approach coping (Hypothesis 1b).

Individual Outcomes

Previous studies have found career insecurity to have significant relationships with certain career outcomes. For example, career insecurity has been negatively associated with both psychological wellbeing (e.g., Wielers et al., 2022) and subjective career success (e.g., Zyberaj & Bakaç, 2022). Considering the perspectives of stress theories (e.g., Lazarus & Folkman, 1984), these relationships between career insecurity and it outcomes may necessitate further examination given that the consequences of stress can vary based on how an individual deals with a stressor (Bell et al., 2012). Coping strategies are argued to help people adapt to unfavorable life situations and develop beneficial individual outcomes such as physical health, positive emotions, meaningfulness, personal growth, mastery, and self-acceptance (Aspinwall, 2011; Folkman, 2011; Mayordomo et al., 2016; Park, 2011). Furthermore, coping strategies have also been related to career decidedness, job search outcomes, and objective career success (Körner et al., 2015; Lipshits-Braziler et al., 2015).

Between the two coping strategies that were previously described, approach coping, e.g., active coping, planning, positive reinterpretation, has more often been positively associated with psychological wellbeing and subjective career success (Anthony 2008; Carver & Connor-Smith, 2010; Holahan et al., 2004; Mayordomo et al., 2016; Nikolaev et al., 2023). Whereas, avoidance coping, e.g., venting, denial, behavioral disengagement, has more often been negatively associated with these two outcomes even among young adults (González et al., 2002; Mayordomo-Rodríguez et al., 2015; Nikolaev et al., 2023). By regulating an individual's emotional response to a stressor that is deemed unsolvable and mitigating the emotional pain, avoidance coping may provide short-term benefits to an individual (Heckman et al., 2004; Mayordomo et al., 2016; Suls & Fletcher, 1985). But it becomes problematic when individuals overuse avoidance strategies (Elliot et al., 2011). In addition to the negative nature of some avoidance strategies, its continued use can produce rumination, hindering the adaptive process and having negative implications on individuals' mental health (Elliot et al., 2011; Mayordomo et al., 2016; Michl et al., 2013). Indeed, less use of avoidance coping has been associated with lower levels of distress (Thomassen et al., 2022).

In summary, with respect to the arguments that individual outcomes to a stressor are linked to the coping strategies, which an individual implements in stressful situations (Mayordomo-Rodríguez et al., 2015), we hypothesize that avoidance and approach coping strategies will mediate the relationships between career insecurity and psychological wellbeing (Hypothesis 2). Avoidance coping is expected to mediate the negative relationship between career insecurity and psychological wellbeing (Hypothesis 2a). Career insecurity will positively relate to avoidance coping, and avoidance coping will negatively relate to psychological wellbeing. Additionally, approach coping is expected to mediate the negative relationship between career insecurity and psychological wellbeing (Hypothesis 2b). Career

insecurity will negatively relate to approach coping, and approach coping will positively relate to psychological wellbeing.

Furthermore, we hypothesize that avoidance and approach coping strategies will mediate the relationships between career insecurity and subjective career success (Hypothesis 3). Avoidance coping is expected to mediate the negative relationship between career insecurity and subjective career success (Hypothesis 3a). Career insecurity will positively relate to avoidance coping, and avoidance coping is expected to negatively relate to subjective career success. Additionally, approach coping is expected to mediate the negative relationship between career insecurity and subjective career success (Hypothesis 3b). Career insecurity will negatively relate to approach coping, and approach coping will positively relate to subjective career success.

Country Contexts

Previous studies have highlighted the importance of considering the country contexts when investigating the impact of insecurity and the effectiveness of coping in light of national differences in economic conditions and cultural approaches to stress (e.g., Ding et al., 2021; Lai et al., 2020; László et al., 2010; Lawrie et al., 2020). To elaborate, labor market insecurity, which refers to both job insecurity and employment insecurity, have been observed to significantly differ between countries, depending on the macro-economic situations (e.g., unemployment rate) or institutional contexts (e.g., labor market policies, employment protection legislation, unemployment assistance; Dixon et al., 2013; Inanc & Kalleberg, 2022; László et al., 2010). For example, unemployment rate has been suggested to affect individual perceptions of job loss likelihood, whereas unemployment insurance can play a role in reducing individuals' economic insecurity (Inanc & Kalleberg, 2022; Sjöberg, 2010). In relation to employment protection legislation, temporary workers in countries with stricter legislations, including strong job security provisions for permanent contracts, were

likelier to feel insecure compared to workers of other countries with rather different legislations (e.g., Clark & Postel-Vinay, 2009; Balz, 2017).

In this study, four country contexts were considered, namely, Italy, Norway, Bangladesh, and Indonesia. In relation to the Italian context, it has been compared to other Mediterranean labor markets that are characterized by a strong labor market segmentation with a rising allocation of young workers to temporary jobs (Barbieri, 2009; Muffels, 2013). Lodovici and Semanaza (2012), for instance, found higher rates of unemployment and precarious employment among graduates compared to less skilled employees in Italy. With reports of graduates enduring a series of low paid temporary jobs, the transition rates from an insecure, low-paid job to a secure, high-paid job has been low among young Italian workers (Lodovici & Semanaza, 2012; Muffels, 2013).

With regard to the Norwegian context, it is characterized by a Nordic welfare model and a "flexicurity approach" (Muffels, 2013; Nielsen et al., 2019). Despite low levels of job protection and increases in part-time and non-permanent work among young employees, the Nordic countries' active labor market and educational policies have been credited to alleviate the risk of young people being trapped in precarious work (Muffels, 2013; Nielsen et al., 2019). Norway is also characterized by high transition rates from insecure to secure jobs among its workers (Muffels, 2013).

In the Bangladesh context, despite reporting low unemployment rates, certain labor market challenges are argued to persist among its workers such as informal employment, underemployment, and poor working conditions (e.g., low wages, limited employee benefits; Raihan, 2016). Considering the high supply of workers and a low demand of available job opportunities in the urban formal sector, young people and women are among the individuals who are more inclined to find work in the informal sector of the country (Mahmud & Bidisha, 2016; Raihan et al., 2016). Issues of gender disparity in the Bangladesh labor force

have also been described due to female workers' employment being limited to a few work sectors and activities with low employment hours and renumeration (Mahmud & Bidisha, 2016).

As for the Indonesian context, the long transition between leaving school and finding their first job has contributed to high rates of youth employment in the country (Allen et al., 2016). This is further accentuated by the slow creation of job opportunities and labor market segmentation that augments the likelihood of young people being employed on short-term contracts that can discourage them from further skills investment (Allen et al., 2016; Rahman et al., 2021). Even with higher education degrees, occupational mismatch and skills shortages are still prominent issues in their labor market (Allen et al., 2016). More recently, the active labor market policy and labor market flexicurity approach have been implemented to a certain extent in Indonesia through government assistance programs, vocational training programs, and provisions of assistance to job seekers (Rahmatutik & Laksmono, 2023).

In relation to countries' cultural contexts, on the one hand, specific country aspects such as unemployment rate are contended to have more influence in diversifying coping strategies toward job-related stressors between countries in contrast to the impact of a general cultural factor (Gelhaar et al., 2007). On the other hand, cultural values and norms are suggested to play an explanatory role in explaining country differences in the use and impact of coping strategies (Bardi & Guerra, 2011; Ding et al., 2021; Lai et al., 2020; Lawrie et al., 2020). Hofstede and colleagues (2010) have proposed that countries can be characterized according to cultural dimensions based on their response to life problems such as uncertainty or interdependence. Previous cross-cultural research have found significant relations between cultural dimensions (e.g., uncertainty avoidance), individual stress, and coping behaviors. For example, countries that are characterized by high levels of uncertainty avoidance such as Italy and Bangladesh may experience more anxiety and stress when dealing with uncertain and

ambiguous situations (Jang et al., 2018; Malik, 2021). Moreover, the negative implications of avoidance coping strategies are stronger in countries with low levels of uncertainty avoidance such as Norway and Indonesia (Cheng et al., 2024).

The stress literature has also expanded on the cultural transactional theory of stress and coping (Chun et al., 2006), which contends that stress and coping can center around issues of independence and interdependence in individualist and collectivist societies, respectively. Countries characterized by high levels of individualism such as Norway are suggested to employ more individualistic coping, which involves modifying the external stressor and using more problem-focused coping (i.e., approach coping; Chun et al., 2006; Kuo & Gingrich, 2004; Kuo, 2013). Whereas countries characterized by high levels of collectivism such as Bangladesh and Indonesia may show more collectivistic coping, which involves modifying oneself to maintain collective harmony and applying more cognitive avoidance and emotion-focused coping (Chun et al., 2006; Lam & Zane, 2004).

To summarize, prior studies on the impact of macro-economic situations and institutional contexts on early career individuals' insecurity have concentrated on job insecurity (i.e., individual perceptions of job loss likelihood) and employment insecurity (i.e., perceptions of easiness in finding a new and comparable job; Inanc & Kalleberg, 2022). In our study, we make additional contributions to this literature by focusing on another relevant construct, career insecurity, in which we assess country-level differences in young people's perceptions and worries of their future career development. We also build on the findings of previous cross-cultural research and further investigate the differences in the coping strategies that early career individuals employ to deal with their career insecurity between four countries. In essence, we hypothesize that the levels of career insecurity, ambiguity tolerance, and coping strategies among early career individuals will be significantly different between Italy, Norway, Bangladesh, and Indonesia (Hypothesis 4).

Method

Participants and Procedure

This study was approved by the ethics committee of the University of Bologna, Italy (Protocol number 0061127, 7 March 2023).. Only individuals who provided their informed consent participated in this study. Similar to previous studies on young workers' job insecurity and coping strategies (Mayordomo-Rodríguez et al., 2015; Muffels, 2013), an age range from 18 to 34 was applied as a participant criterion of this study. The data were collected using online surveys that were distributed at two timepoints with a one-month interval. The Qualtrics platform was used to collect survey data from Italy, Norway, Bangladesh, and Indonesia. To recruit participants, convenience sampling and snowball sampling were utilized. In addition to promoting the surveys across the authors' networks and on social media, the surveys were also promoted during classes of university students. Participants in Italy and Indonesia answered the surveys in their local languages, whereas participants in Norway and Bangladesh answered it in English.

A priori power analysis using G*Power 3.1.9.7 (Faul et al., 2009) indicated that at least 70 participants from each country were needed to achieve 95% power for detecting a medium effect size at $\alpha = .05$ (Cohen, 1988). From November 2023 to June 2024, early career individuals in the four participating countries were recruited to satisfy the minimum sample size necessary for the study. Data collection finished when an equal number of participants were attained from each country ($n = 123$).

The final sample consisted of 492 participants in Time 1 (T1) and 223 participants in Time 2 (T2). Selective nonresponse was checked by comparing respondents and non-respondents in the T2 sample ($n = 223$ vs. $n = 269$) using a logistic regression with gender, age, neuroticism, and the variables measured at T1. Signs of nonrandom attrition were observed for gender, aversion to ambiguity, and avoidance coping. Results of a chi-square

test showed that females were more likely to remain in the sample, $\chi^2(1, N = 492) = 8.968$, $p = .003$. These results are similar to previous studies' gender participation rates in which women are likelier to respond to survey research compared to men (Becker, 2022). Furthermore, individuals with higher levels of aversion to ambiguity, $t(479) = -2.396$, $p = .017$, and lower levels of avoidance coping, $t(490) = 0.721$, $p = .471$, were more likely to remain in the sample. The higher participation rate of ambiguity averse individuals may be attributed to their search for more information or clarity as an attempt to reduce ambiguity throughout the entirety of the study.

Table 1 summarizes the sociodemographic characteristics of the total sample and the country subsamples. In total, 44.11% of the participants were male ($n = 217$) and 54.88% of the participants were female ($n = 270$). The median age of the total sample is 24 ($SD = 3.045$). Five participants did not indicate their gender, and eleven participants did not indicate their study, graduate, job search, and employment status.

Table 1

Study sample

	Total $N = 492$	Italy $n = 123$	Norway $n = 123$	Bangladesh $n = 123$	Indonesia $n = 123$
Gender					
Male	217	37	51	67	62
Female	270	85	69	56	60
Age					
Median (*SD*)	24 (3.045)	24 (3.287)	24 (2.995)	24 (2.103)	25 (3.547)
Studying					
Yes	309	83	64	108	54
No	172	39	51	14	68
University graduate					
Yes	289	67	88	49	85
No	192	55	27	73	37
Job searching					
Yes	174	26	42	65	41
No	307	96	73	57	81
Employed / working					
Yes	253	64	88	25	76

No	228	58	27	97	46

Measures

The validated scales that were used in this study were originally available in English. Back-translation procedures were performed to translate scales that were not available in either Italian or Indonesian. In each country subsample, confirmatory factor analyses (CFA) were performed to assess each scale's factor structure. All scales reported satisfactory model fit indices (cf. Hu & Bentler, 1999)and acceptable reliability coefficients (see Table 3). A 5-point Likert scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*) was used to respond to all survey items unless otherwise indicated.

Ambiguity Tolerance

Ambiguity tolerance was measured at T1 using the 6-item aversion to ambiguity subscale (e.g., "I am afraid of sorting out the complex aspects of a career") from the Career Decision Ambiguity Tolerance Scale (Xu & Tracey, 2015).

Career Insecurity

Four dimensions of career insecurity were measured in this study at T1. Two subscales from the Career Anxiety Scale (Tsai et al., 2017) were used to measure Employment Environment (e.g., "I worry about future employment because of the increasing unemployment rate reported by the mass media") and Professional Education Training (e.g., "I worry that I cannot apply what I have learned to my work") with five items and four items, respectively. The first subscale refers to early career individuals' thoughts and worries about their future employment due to the characteristics of the working environment, whereas the second subscale refers to their thoughts and worries about their professional training and career expectations (Tsai et al., 2017). Additionally, two four-item subscales from the Multidimensional Career Insecurity Scale (Spurk et al., 2022) were used to measure Career Opportunities (e.g., "I am anxious that in my future career, no promotion possibilities could

arise") and Contractual Employment Conditions (e.g., "I am worried that the contractual framework of my future work would be unfavorable"). The career insecurity dimensions assessed by these subscales refer to early career individuals' thoughts and worries about their future professional development opportunities and future work conditions (e.g., working hours, work contract stipulations), respectively (Spurk et al., 2022). All four of these subscales have been adapted into Italian (Chiesa & Antonio, 2024).

Coping Strategies

The Brief COPE (Carver, 1997; Monzani et al., 2015) was used to measure avoidance coping strategies (e.g., "I've been giving up trying to deal with it") and approach coping strategies (e.g., "I've been thinking hard about what steps to take") at T1. Avoidance coping consisted of 12 items that measured behavioral disengagement, denial, humor, self-blame, self-distraction, and venting. And approach coping consisted of 12 items that measured acceptance, active coping, planning, positive reframing, and use of instrumental and emotional support. In the survey, the scale instructions were adapted to focus on career insecurity in response to the Brief COPE items. A 4-point Likert scale ranging from 1 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*) was used.

Psychological Wellbeing

Psychological wellbeing was measured at T2 using the 12-item General Health Questionnaire (Goldberg, 1988; Politi et al., 1994). The response scale to item statements such as "In the past month, I have lost much sleep over worry" was from 0 (*Much less than usual*) to 3 (*More so than usual*).

Subjective Career Success

The five-item career satisfaction scale (Greenhaus et al., 1990; Sarchielli & Toderi, 2005) was used to measure subjective career success (e.g., "I am satisfied with the progress I have made toward meeting my overall career goals") at T2.

Results

Prior to testing the hypotheses, confirmatory factor analyses were performed to assess the factor structure of career insecurity. Table 2 reports the model fit indices of a four-factor model and a four-factor model with a latent second order factor.

Table 2

Confirmatory factor analyses results

	N	χ^2	*df*	*p*	CFI	TLI	SRMR	RMSEA	90% CI
Career Insecurity									
4-factor model	483	348.221	113	< .01	.953	.943	.039	.066	.058 to .074
Second order factor model	483	399.792	115	< .01	.943	.932	.046	.072	.064 to .079

The four-factor structure of career insecurity was further assessed using repeated measures analysis of variance (ANOVA) with a Greenhouse-Geisser correction. The results revealed significant differences in the mean scores of the four career insecurity dimensions, $F(2.640, 1296.069) = 67.224$, $p < .01$. Post-hoc analysis with a Bonferroni adjustment indicated that employment environment had a significantly higher mean score than professional education training ($p < .01$), career opportunities ($p < .01$), and contractual employment conditions ($p < .05$). Contractual employment conditions also had a significantly higher mean score than professional education training ($p < .01$) and career opportunities ($p < .01$). No significant differences were found in the mean scores between professional education training and career opportunities ($p = 1.000$). Considering these results, we tested the hypotheses by running separate observed path analyses on Mplus 8.9 (Muthén & Muthén, 2017) with each career insecurity dimension (i.e., employment environment, professional education training, career opportunities, and contractual employment conditions) serving as the predictor of each analysis. These analyses included aversion to ambiguity as moderator,

avoidance and approach coping as mediators, and psychological wellbeing and subjective career success as outcomes. Table 3 reports the correlations between the examined variables.

Table

Reliability and correlations

		n = 123				*N* = 492 Total Sample															
		IT	NO	BD	ID																
		α	α	α	α	α	Gender	1	2	3	4	5	6	7	8	8a	8b	8c	8d	9	10	11
1	Age						.045															
2	Studying						-.045	-.457**														
3	University graduate						.116*	.427**	-.351**													
4	Job searching						-.093*	.027	.002	.119**												
5	Employed / working						.010	.380**	-.517**	.289**	-.126**											
6	Neuroticism						-.055	-.168**	.006	-.032	.026	-.070										
7	Aversion to ambiguity	.802	.809	.820	.815	.824	-.062	-.175**	.105*	-.072	.166**	-.171**	.273**									
8	Career Insecurity	.926	.948	.927	.957	.942	.054	-.201**	.036	-.106*	.162**	-.186**	.250**	.632**								
8a	CI: Employment Environment	.837	.853	.811	.897	.856	.134**	-.188**	.035	-.084	.141**	-.198**	.220**	.536**	.889**							
8b	CI: Professional Education Training	.750	.820	.810	.860	.814	.037	-243**	.103*	-.139**	.150**	-.247**	.264**	.593**	.845**	.697**						
8c	CI: Career Opportunities	.812	.864	.826	.893	.855	-.002	-.164**	.004	-.086	.125**	-.109*	.240**	.550**	.905**	.717**	.680**					
8d	CI: Contractual Employment Conditions	.883	.860	.855	.881	.880	.024	-.112*	-.017	-.061	.152**	-.098*	.154**	.539**	.878**	.722**	.581**	.786**				
9	Avoidance coping	.754	.791	.849	.792	.799	-.117**	-.146**	.006	-.115*	.137**	-.101*	.237**	.473**	.490**	.407**	.420**	.446**	.451**			
10	Approach coping	.705	.857	.828	.864	.832	.047	.003	-.100*	.044	.064	.039	.169**	.079	.039	.064	-.059	.035	.101*	.363**		
11	Psychological wellbeing	.879	.905	.770	.903	.849	-.110	.055	-.043	.152*	-.022	.047	-.013	-.308**	-.363**	-.336**	-.333**	-.275**	-.329**	-.215**	.162*	
12	Subjective career success	.917	.888	.931	.885	.915	-.174**	-.060	-.074	.006	.009	.009	.111	-.105	-.141*	-.178**	-.102	-.093	-.124	-.013	.236**	.395**

Note. CI = Career Insecurity. IT = Italy. NO = Norway. BD = Bangladesh. ID = Indonesia.

* $p < .05$

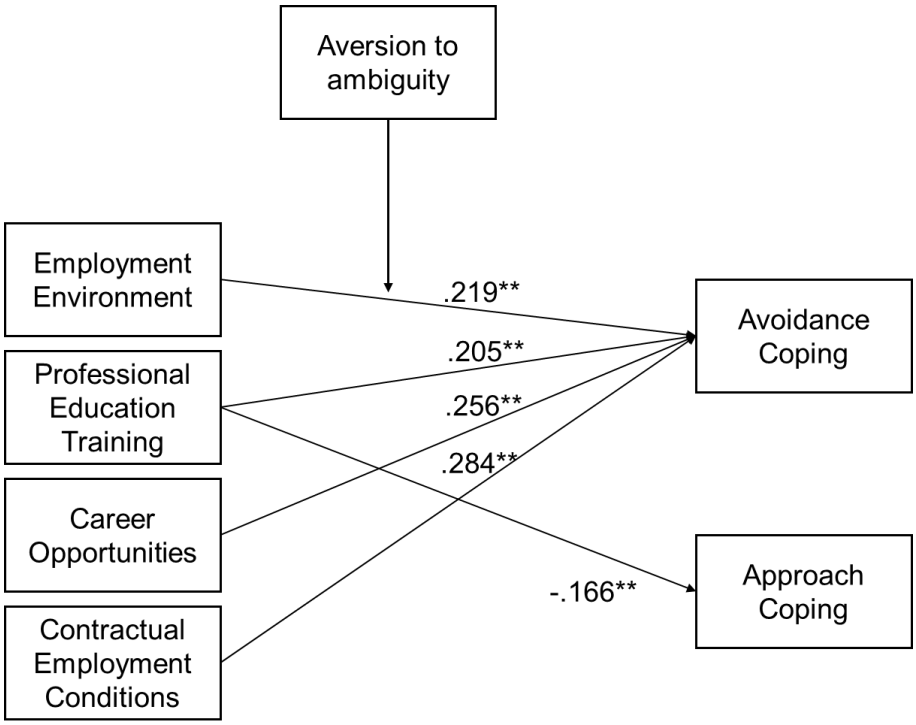
** $p < .01$

Moderating Role of Ambiguity Tolerance

Four moderation analyses were performed to test Hypothesis 1. The predictor and moderating variables were mean centered. Figure 2 depicts the significant relationships, and Table 4 shows the results of the moderation analyses.

Figure 2

Significant relationships between career insecurity dimensions and coping strategies



Note. Standardized path coefficients are shown.

**$p < .01$

Table 4

Moderation analyses results

	Avoidance coping		Approach coping	
	B	β	*B*	β
Career Insecurity Model 1				
Aversion to ambiguity	.223	.361**	.036	.064
CI: Employment Environment	.122	.219**	.019	.037
AVE x Employment Environment	.041	.078*	.018	.038
R^2		.263**		.009
Career Insecurity Model 2				

Aversion to ambiguity	.213	.344**	.095	.168**
CI: Professional Education Training	.105	.205**	-.078	-.166**
AVE x Professional Education Training	.026	.053	.032	.072
R^2		.255**		.027
Career Insecurity Model 3				
Aversion to ambiguity	.202	.327**	.047	.083
CI: Career Opportunities	.137	.256**	-.008	-.016
AVE x Career Opportunities	.031	.062	.028	.061
R^2		.275**		.010
Career Insecurity Model 4				
Aversion to ambiguity	.195	.315**	.010	.018
CI: Contractual Employment Conditions	.151	.284**	.051	.104
AVE x Contractual Employment Conditions	.035	.068	.037	.079
R^2		.281**		.019

Note. CI = Career Insecurity. AVE = Aversion to ambiguity.

*$p < .05$

**$p < .01$

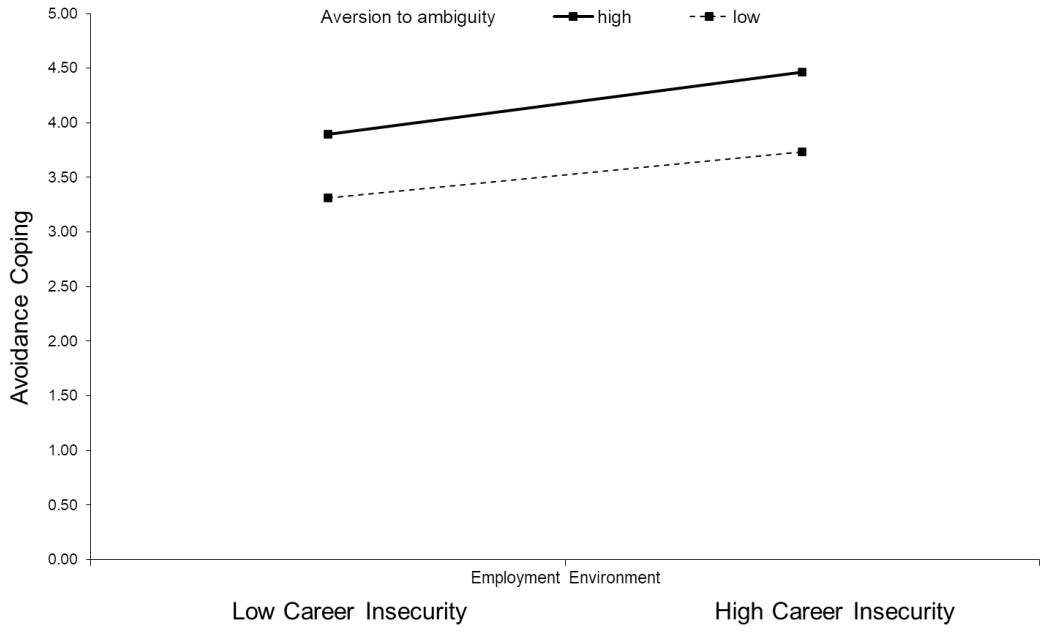
In Hypothesis 1a, we expected aversion to ambiguity to strengthen the positive relationship between career insecurity and avoidance coping. The results showed that all dimensions of career insecurity were positively related to avoidance coping, and aversion to ambiguity was positively related to avoidance coping (see Table 4). The interaction of aversion to ambiguity with employment environment on avoidance coping was found to be significant ($\beta = .078$, $p = .048$). Simple slopes analyses showed that the positive relationship between employment environment and avoidance coping was stronger when aversion to ambiguity was high (1*SD* above the mean; $B = .160$, $p < .01$) compared to when aversion to ambiguity was low (1*SD* below the mean; $B = .085$, $p = .006$; see Figure 3). No other significant interactions between aversion to ambiguity and other dimensions of career insecurity on avoidance coping were found. Hypothesis 1a was partially supported.

In Hypothesis 1b, we expected aversion to ambiguity to strengthen the negative relationship between career insecurity and approach coping. The results showed that only professional education training had significant negative relationship with approach coping (β

= -.166, p = .003). In this moderation model, aversion to ambiguity was positively related to approach coping (β = .168, p = .003). However, the interaction of aversion to ambiguity with professional education training on approach coping was not significant (β = .072, p = .112). The interactions between aversion to ambiguity and other dimensions of career insecurity on approach coping were nonsignificant. Hypothesis 1b was not supported.

Figure 3

Aversion to ambiguity as a moderator in the relationship between employment environment and avoidance coping



Mediating Role of Coping

To test hypotheses 2 and 3, four path analyses were run. In Hypothesis 2, we expected avoidance and approach coping to mediate the negative relationships between career insecurity and psychological wellbeing. The results of our analyses showed that in all mediation models, avoidance coping had a significant negative relationship with psychological wellbeing, whereas approach coping had a significant positive relationship with psychological wellbeing (see Table 5). The indirect effects of career insecurity on psychological wellbeing through approach and avoidance coping were tested using 10,000

bootstrap samples. Significant indirect effects of employment environment (*B* = -.044; 95% CI [-.080, -.008]), professional education training (*B* = -.039; 95% CI [-.075, -.004]), and career opportunities (*B* = -.055; 95% CI [-.094, -.014]) on psychological wellbeing were found via avoidance coping but not via approach coping. Furthermore, significant indirect effects of contractual employment conditions on psychological wellbeing were found both via avoidance coping (*B* = -.046; 95% CI [-.085, -.008]) and approach coping (*B* = .014; 95% CI [.002, .033]). Hypothesis 2a was supported, whereas Hypothesis 2b was partially supported.

Table 5

Path analysis results predicting psychological wellbeing and subjective career success

	Psychological wellbeing		Subjective career success	
	B	β	*B*	β
Mediation model 1				
CI: Employment Environment	-.162	-.269**	-.187	-.177*
Avoidance coping	-.193	-.180*	-.059	-.031
Approach coping	.263	.225**	.496	.241**
R^2		.185**		.089*
Mediation model 2				
CI: Professional Education Training	-.130	-.235**	-.055	-.056
Avoidance coping	-.179	-.167*	-.144	-.076
Approach coping	.247	.212**	.523	.253**
R^2		.168**		.079
Mediation model 3				
CI: Career Opportunities	-.099	-.171*	-.055	-.054
Avoidance coping	-.228	-.212**	-.153	-.080
Approach coping	.272	.232**	.528	.256**
R^2		.156**		.077
Mediation model 4				
CI: Contractual Employment Conditions	-.148	-.259**	-.114	-.113
Avoidance coping	-.191	-.178*	-.105	-.056
Approach coping	.273	.234**	.521	.253**
R^2		.179**		.078*

Note. CI = Career Insecurity.

* $p < .05$

** $p < .01$

Cross-Country Comparisons

One-way ANOVA was run to test Hypothesis 4 in which we expected significant differences in the levels of ambiguity tolerance, career insecurity, and coping strategies between four country groups, namely, Italy, Norway, Bangladesh, and Indonesia. Table 6 presents the results of the ANOVA and the Tukey HSD post hoc comparisons. Bangladesh and Indonesia were found to significantly score higher on aversion to ambiguity in comparison to Italy and Norway. With regard to the dimensions of career insecurity, Norway scored significantly lower on employment environment and contractual employment conditions in comparison to the other three countries. Furthermore, Norway scored lower on career opportunities compared to Italy and Bangladesh. The latter also had a significantly higher score on professional education training, as well as avoidance coping, in contrast to Norway. In relation to coping strategies, Indonesia was found to significantly score higher in approach coping compared to the other three countries. Indonesia also scored higher in avoidance coping in contrast to Italy and Norway. Considering the significant differences found between countries for each examined variable, the results found support for Hypothesis 4.

Table 6

Means, F values, and Tukey HSD post hoc comparisons for ambiguity tolerance, career insecurity, and coping strategies between countries

	Italy		Norway		Bangladesh		Indonesia		Total		*F*	Post hoc
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
Aversion to ambiguity	2.814	0.903	2.632	0.783	3.350	0.865	3.168	0.928	2.996	0.914	16.706**	BD, ID > IT, NO
Career Insecurity	3.163	0.852	2.739	0.869	3.204	0.870	3.176	1.034	3.077	0.924	^{w}7.812**	IT, BD, ID > NO
CI: Employment Environment	3.379	0.988	2.948	0.983	3.441	0.909	3.460	1.081	3.307	1.011	7.307**	IT, BD, ID > NO
CI: Professional Education Training	2.779	1.020	2.683	0.992	3.124	1.128	2.957	1.181	2.886	1.093	^{w}4.068**	BD > NO
CI: Career Opportunities	2.986	0.966	2.632	0.958	2.990	1.038	2.953	1.192	2.890	1.050	^{w}3.833**	IT, BD > NO
CI: Contractual Employment Conditions	3.508	1.034	2.691	0.912	3.262	1.002	3.331	1.123	3.198	1.063	^{w}16.793**	IT, BD, ID > NO
Avoidance coping	2.333	0.501	2.249	0.520	2.451	0.656	2.547	0.530	2.395	0.565	^{w}7.429**	BD > NO ID > IT, NO
Approach coping	2.969	0.419	2.932	0.567	3.043	0.527	3.257	0.497	3.050	0.520	^{w}10.421**	ID > IT, NO, BD

Note. IT = Italy. NO = Norway. BD = Bangladesh. ID = Indonesia.

^{w} denotes the Welch correction of the *F* ratio

** $p \leq .01$

Exploratory Analyses

Moderated Mediation Effects

We tested for the moderated mediation effects of ambiguity tolerance (i.e., aversion to ambiguity) and coping (i.e., approach and avoidance) in the relationships between the four career insecurity dimensions (i.e., employment environment, professional education training, career opportunities, contractual employment conditions) and the outcomes (i.e., psychological wellbeing and subjective career success). Four conditional path analyses were run using 10,000 bootstrap samples. The interaction of aversion to ambiguity with employment environment (β = .078, p = .088), professional education training (β = .053, p = .254), career opportunities (β = .062, p = .146), and contractual employment conditions (β = .068, p = .115) on avoidance coping were nonsignificant. Similarly, the interaction of aversion to ambiguity with employment environment (β = .038, p = .518), professional education training (β = .072, p = .213), career opportunities (β = .061, p = .286), and contractual employment conditions (β = .079, p = .161) on approach coping were also nonsignificant. Thus, no significant conditional indirect effects were found in the analyses.

Country Moderation Models

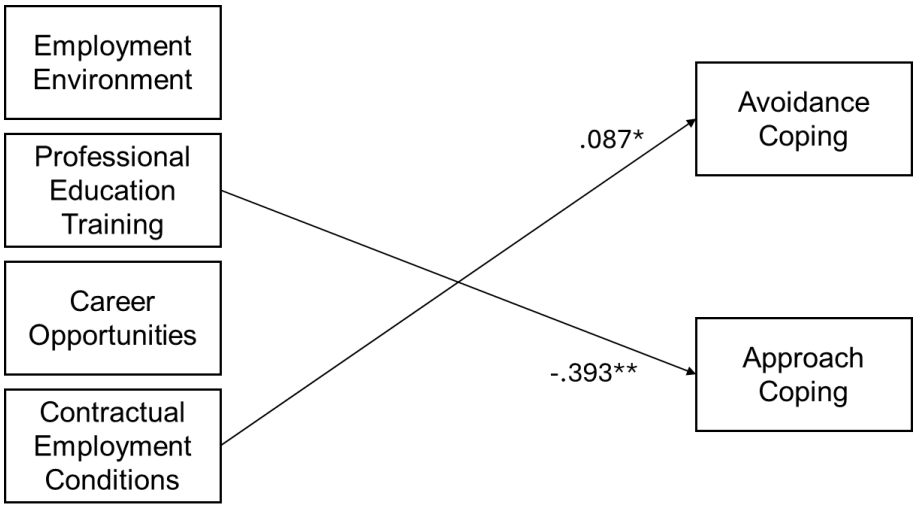
Considering the significant differences in ambiguity tolerance, career insecurity, and coping strategies found between Italy, Norway, Bangladesh, and Indonesia, we explored and tested our hypothesized moderation model in each country subsample. Specifically, four moderation analyses were run in each subsample to assess country differences in the variable relationships and moderations. Figure 4 depicts the significant relationships and moderations found in each country.

Italy. In the Italian subsample, only one dimension of career insecurity, i.e., contractual employment conditions, positively related to avoidance coping (see Figure 4). Similar to the results of the total sample, professional education training negatively related to

approach coping. Furthermore, aversion to ambiguity was significantly related to avoidance coping in all moderation models ($p < .01$). No significant relationship, however, between aversion to ambiguity and approach coping was found. Aversion to ambiguity was not found to play a moderating role in the relationships between career insecurity and coping strategies in the Italian subsample.

Figure 4

Significant path model for Italy subsample



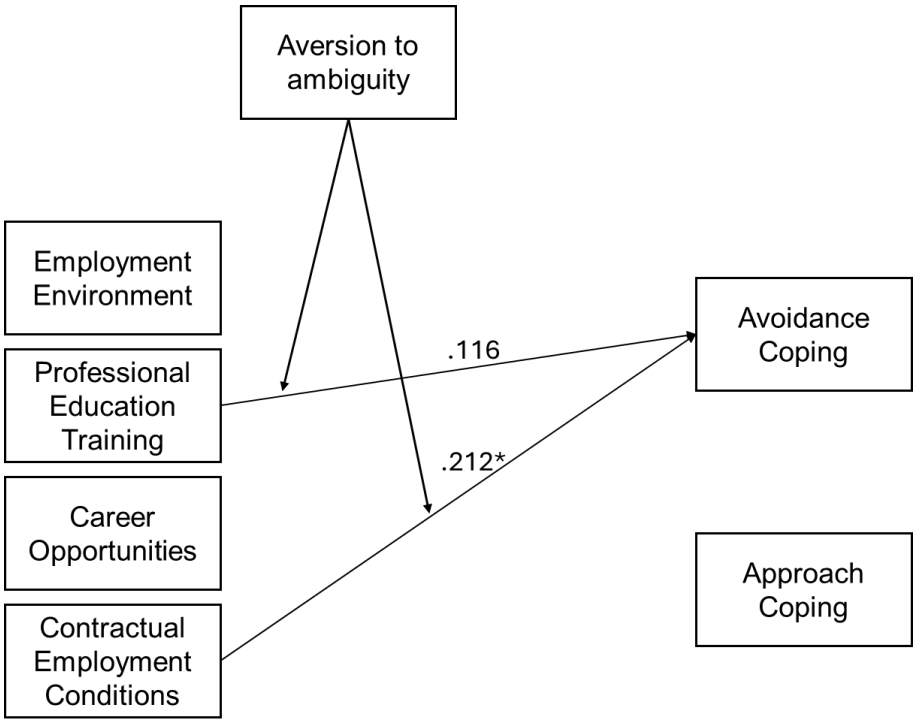
Note. *$p < .05$

**$p < .01$

Norway. Similar to the Italian subsample, contractual employment conditions was the only career insecurity dimension that positively related to avoidance coping in the Norwegian subsample (see Figure 5). No significant relations between the career insecurity dimensions and approach coping were found. Aversion to ambiguity was significantly related to avoidance coping in all moderation models ($p < .05$). Similar to Italy, no significant relationships between aversion to ambiguity and approach coping were found in the Norwegian moderation models.

Figure 5

Significant path model for Norway subsample



Note. *$p < .05$

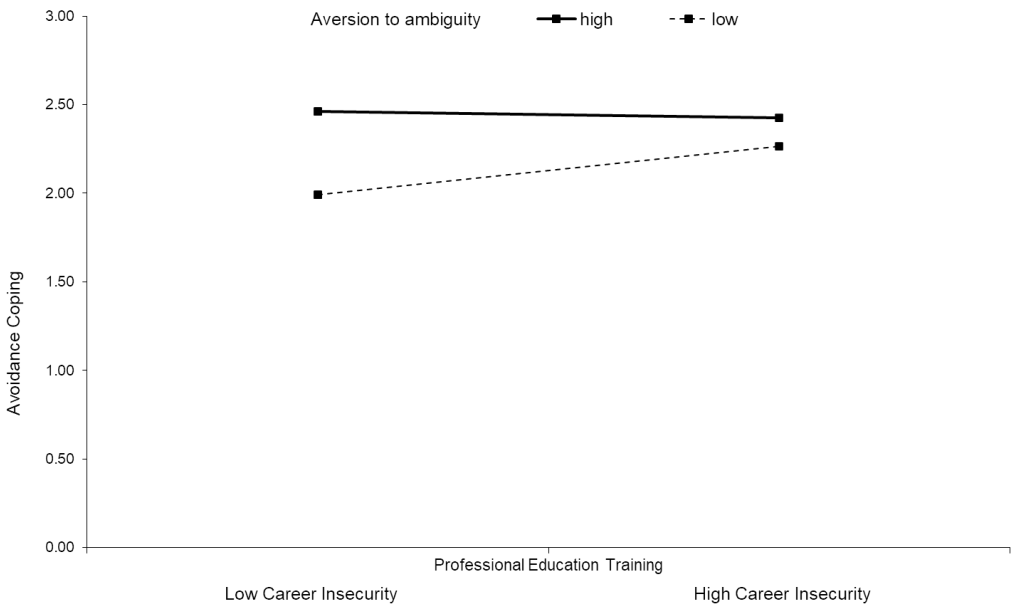
Aversion to ambiguity was found to moderate the relationship between professional education training and avoidance coping (β = -.187, p = .030). Simple slopes analyses showed that professional education training did not significantly relate to avoidance coping when aversion to ambiguity was high (1*SD* above the mean; B = -.018, p = .784). When aversion to ambiguity was low (1*SD* below the mean), professional education training positively related to avoidance coping (B = .136, p = .040; see Figure 6).

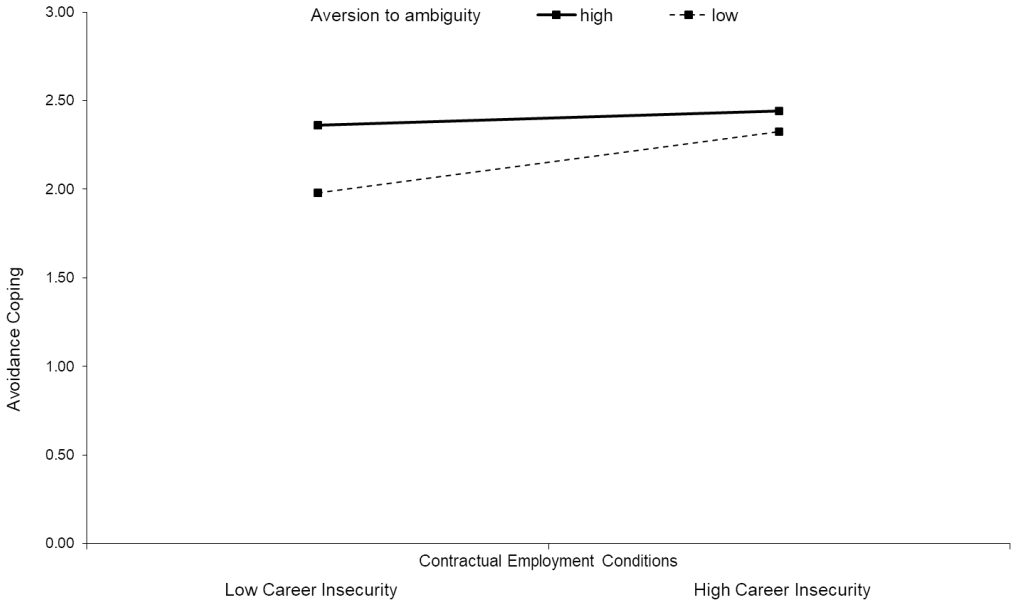
Additionally, aversion to ambiguity moderated the relationship between contractual employment conditions and avoidance coping (β = -.171, p = .045). Simple slopes analyses showed that contractual employment conditions did not significantly relate to avoidance coping when aversion to ambiguity was high (1*SD* above the mean; B = .046, p = .507). When aversion to ambiguity was low (1*SD* below the mean), contractual employment

conditions positively related to avoidance coping (B = .190, p = .005; see Figure 6). These results did not align with Hypothesis 1a.

Figure 6

Aversion to ambiguity as a moderator in the relationships between career insecurity and avoidance coping in the Norway subsample

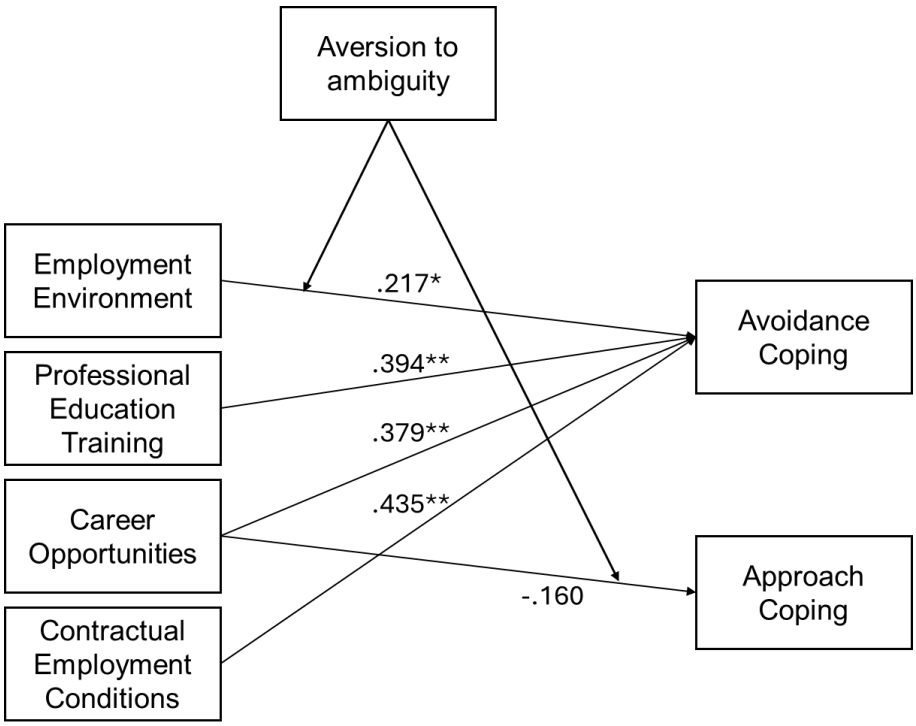




Bangladesh. Similar to the results of the total sample, all dimensions of career insecurity were found to positively relate to avoidance coping in the Bangladesh sample (see Figure 7). Aversion to ambiguity was also significantly related to avoidance coping in all moderation models ($p < .05$). Though no significant relationships between the career insecurity dimensions and approach coping were found, aversion to ambiguity, instead, significantly related to approach coping in all moderation models except for contractual employment conditions.

Figure 7

Significant path model for Bangladesh subsample



Note. *$p < .05$

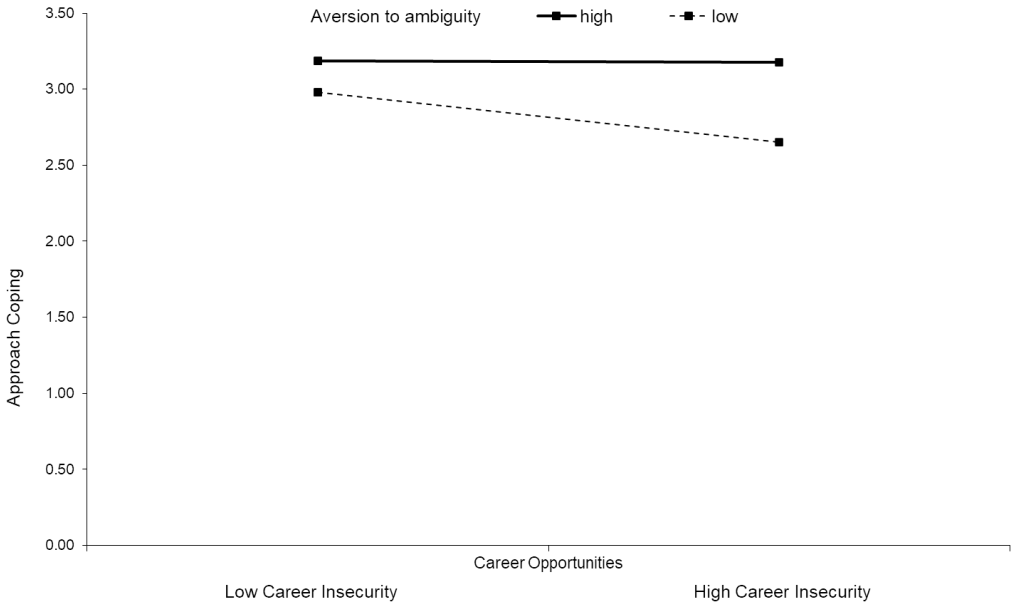
**$p < .01$

Aversion to ambiguity was found to moderate the relationship between employment environment and avoidance coping ($\beta = .189$, $p = .016$). Simple slopes analyses showed a significant positive relationship between employment environment and avoidance coping when aversion to ambiguity was high (1*SD* above the mean; $B = .265$, $p < .01$). When

aversion to ambiguity was low (1*SD* below the mean), this relationship was nonsignificant (*B* = .048, *p* = .579; see Figure 8). Similar to the moderation found in the total sample, these results in the Bangladesh subsample aligned with our expectations for Hypothesis 1a.

Figure 8

Aversion to ambiguity as a moderator in the relationships between career insecurity and coping strategies in the Bangladesh subsample

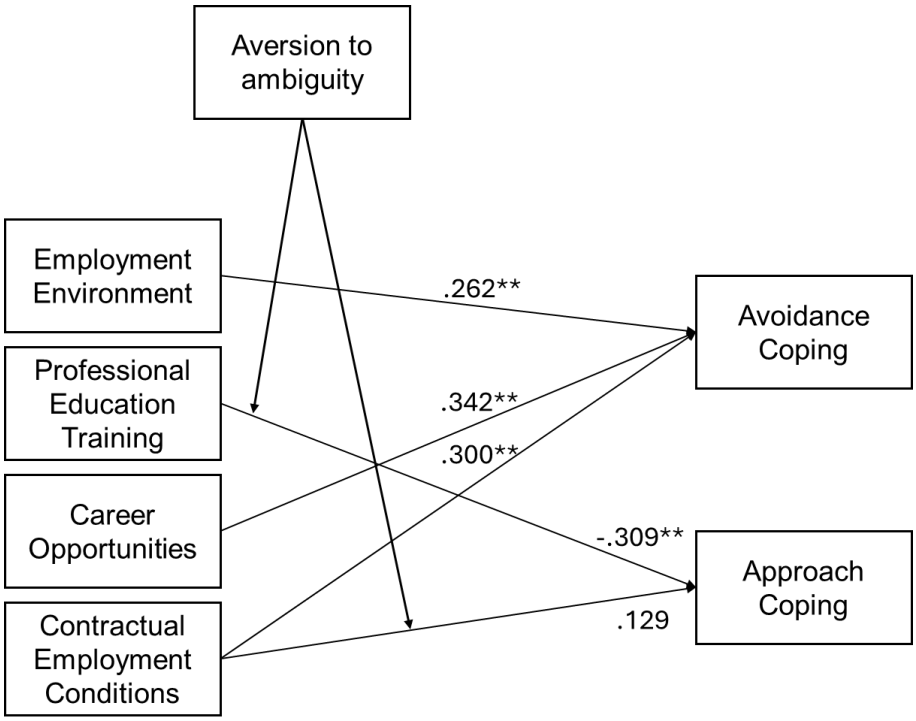


Aversion to ambiguity also moderated the relationship between career opportunities and approach coping (β = .177, *p* = .041). Simple slopes analyses showed career opportunities did not significantly relate to approach coping when aversion to ambiguity was high (1*SD* above the mean; *B* = -.004, *p* = .945). When aversion to ambiguity was low (1*SD* below the mean), career opportunities negatively related to approach coping (*B* = -.159, *p* = .026; see Figure 8). These results did not align with Hypothesis 2b.

Indonesia. All dimensions of career insecurity positively related to avoidance coping in the Indonesian sample except for professional education training, which negatively related to approach coping (see Figure 9). Aversion to ambiguity was significantly related to avoidance coping in all moderation models (p < .01). Like the Italian and Norwegian subsamples, no significant relationship was found between aversion to ambiguity and approach coping in all moderation models of the Indonesian subsample.

Figure 9

Significant path model for Indonesia subsample



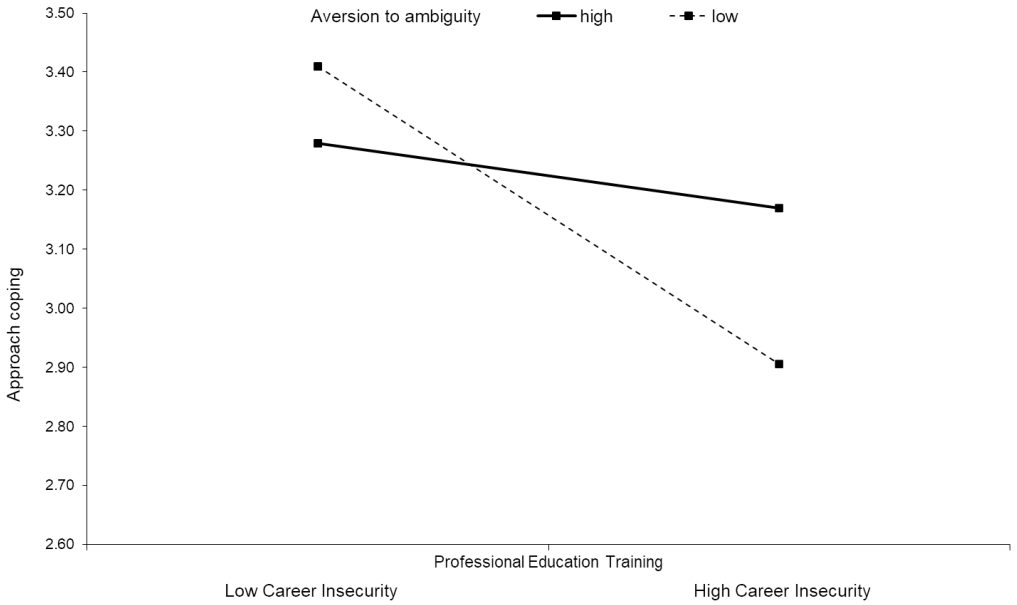
Note. **$p < .01$

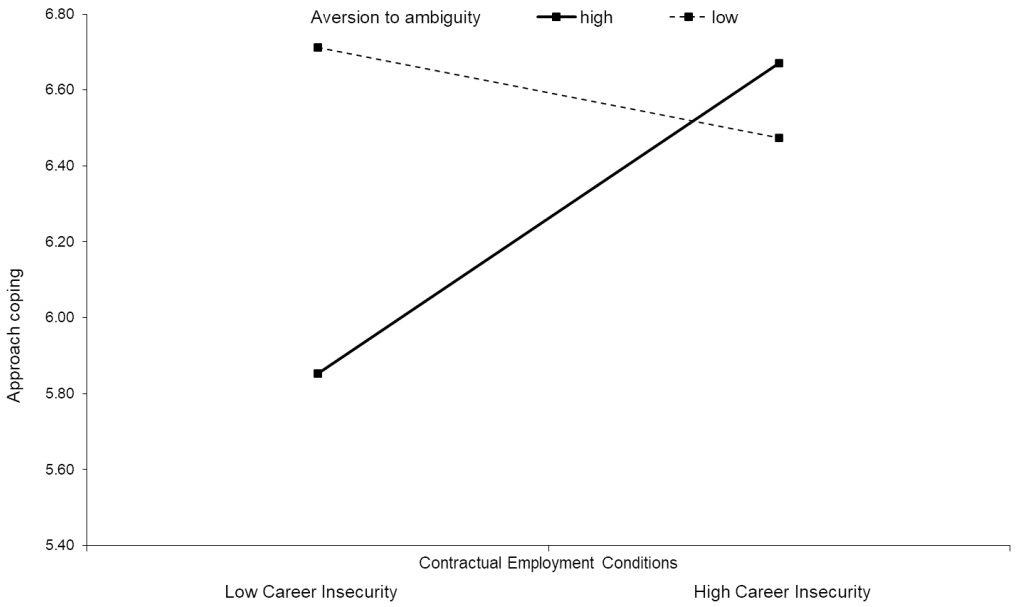
Aversion to ambiguity was found to moderate the relationship between professional education training and approach coping (β = .226, p = .008). Simple slopes analyses showed that professional education training did not significantly relate to approach coping when aversion to ambiguity was high (1SD above the mean; B = -.047, p = .391). When aversion to ambiguity was low (1SD below the mean), professional education training negatively related to approach coping (B = -.214, p < 01; see Figure 10).

Furthermore, aversion to ambiguity moderated the relationship between contractual employment conditions and approach coping (β = .253, p = .003). Simple slopes analyses showed a positive relationship between contractual employment conditions and approach coping when aversion to ambiguity was high (1SD above the mean; B = .157, p = .017; see Figure 10). When aversion to ambiguity was low (1SD below the mean), this relationship was nonsignificant (B = -.043, p = .425). The results of the moderation analyses in the Indonesian subsample did not align with Hypothesis 1b.

Figure 10

Aversion to ambiguity as a moderator in the relationships between career insecurity and approach coping in the Indonesia subsample





Discussion

The present study investigated the associations between career insecurity, coping strategies, and individual outcomes among early career individuals in four countries and made corresponding country comparisons of the examined variables. The study considered the moderating role of ambiguity tolerance (i.e., aversion to ambiguity) in the relationship between career insecurity and coping strategies. In addition, the mediating roles of avoidance and approach coping were assessed in the associations between career insecurity and two outcomes (i.e., psychological wellbeing and subjective career success). Country comparisons on career insecurity, ambiguity tolerance, and coping strategies were also performed among early career individuals in Italy, Norway, Bangladesh, and Indonesia.

We proposed that early career individuals respond to their career insecurity by using coping strategies. Four dimensions of career insecurity were examined in this study, namely, employment environment, professional education training, career opportunities, and contractual employment conditions. In general, all four dimensions showed positive associations with avoidance coping. These results align with the argumentation that early career individuals may feel a lack of control when confronting their career insecurity. Hence,

they use avoidance coping strategies such as behavioral disengagement or denial to help them manage their anxiety from an uncontrollable stressor like career insecurity (Mayordomo et al., 2016; Nielsen et al., 2019).

As for approach coping, only one significant association was found among the four dimensions of career insecurity. Specifically, the professional education training dimension negatively related to approach coping. This dimension pertains to thoughts and worries of not applying one's skills, expertise, and interests in one's future job. Individuals who are insecure with their professional education training may feel less motivated to directly deal with the stress of career insecurity considering the increasing norm of underemployment among early career individuals (Flisi et al., 2017). Furthermore, the professional education training dimension seems to denote individuals' self-assessment of their professional adequacy in relation to the job market. With this in mind, early career individuals who feel insecure of their professional capacities may find less value in approaching their career insecurity given the limited experience and skills they possess at their current career stage.

Regarding the nonsignificant associations between the other three dimensions of career insecurity (i.e., employment environment, career opportunities, contractual employment conditions) and approach coping, on the one hand, early career individuals are likelier to assess these dimensions as factors external to themselves and less controllable. On the other hand, young people can still hold perceptions that their precarious positions in the labour market are only temporary and transitory, maintaining their confidence of eventually attaining a more secure career in the future (e.g., Nielsen et al., 2019). Hence, the nonsignificant associations between these other dimensions of career insecurity and approach coping may be a result of an interplay between early career individuals' assessments of their present and future labor market situations and career development that are still changeable.

Moderating Role of Ambiguity Tolerance

In relation to Hypothesis 1a, ambiguity tolerance was found to have a moderating role only in one relationship among the four associations between career insecurity and avoidance coping. Specifically, the positive relationship between employment environment and avoidance coping was stronger at higher levels of aversion to ambiguity, aligning with the postulation of ambiguity tolerance as a personal resource of early career individuals. In accordance with the conservation of resources theory (Hobfoll, 1989), the possession of low levels of ambiguity tolerance (i.e., being averse to ambiguity) spurs early career individuals to adopt defensive strategies (i.e., avoidance coping) to prevent further loss of resources in response to career insecurity.

Hypothesis 1a was only partially supported in this study, suggesting that ambiguity tolerance becomes most relevant to early career individuals when they are dealing with their thoughts and worries about the employment environment. This dimension of career insecurity generally concerns the characteristics of the labor market, which continues to grow in uncertainty and ambiguity, significantly affecting individuals' future career development (Callanan et al., 2017). In contrast to the other career insecurity dimensions in which the ambiguity can be reduced after a certain period of time, the constantly changing nature of the labor market demands more tolerance to ambiguity among early career individuals. Thus, ambiguity averse individuals become more susceptible to the use of defensive and avoidance strategies when dealing with their career insecurity of the employment environment.

In relation to Hypothesis 1b, which expected ambiguity tolerance to moderate the negative relationships between career insecurity and approach coping, the study was not able to find support in the results. Considering this study measured ambiguity tolerance as an individual's aversion to ambiguity, we can speculate that aversion to ambiguity alone is not sufficient in impacting the direct relations between career insecurity and approach coping.

Previous research has postulated ambiguity tolerance as a multidimensional construct, which, in addition to aversion to ambiguity, individuals can respond to ambiguity with either preference or confidence (Xu & Tracey, 2017). Compared to aversion, these other dimensions of ambiguity tolerance denote a more positive or proactive regard to ambiguity (Xu & Tracey, 2017). By eliciting greater effort for an individual to directly deal with their career insecurity, preference and confidence to ambiguity may serve as better moderators in the career insecurity-approach coping relationship. Furthermore, other kinds of resources, in addition to personal resources, may be considered as significant moderators in the said relationship. For example, contextual resources (e.g., institutional support, network support) may not only weaken the negative relationship but also facilitate the use of approach strategies to cope with one's career insecurity (Kogan et al., 2013).

Mediating Roles of Coping Strategies

The intervening role of avoidance coping was underscored in the assessment of the relationship between career insecurity and psychological wellbeing. In support of Hypothesis 2a, all dimensions of career insecurity were found to have a negative indirect effect on early career individuals' psychological wellbeing via the use of avoidance coping strategies. These findings align with previous research that found the use of avoidance strategies to be maladaptive for young adults' wellbeing (e.g., Mayordomo-Rodríguez et al., 2015). In particular, the overuse of avoidance coping disconnects the individual from confronting the source of their stress (i.e., career insecurity), hindering them from applying more adaptive forms of coping to their problem (Semmer, 2006). The results of this study, however, failed to find support for Hypothesis 3a, which expected avoidance coping to play a mediating role in the relationships between the four career insecurity dimensions and subjective career success. One explanation for this nonsignificant finding may be due to the time lag applied in this study. Subjective career success has often been associated with individuals' self-

evaluation of their career goal progress (Ng et al., 2005). This study, however, used a 1-month interval to assess the relations between career insecurity, avoidance coping, and subjective career success. Hence, this timeframe may have not been sufficient for early career individuals, who are avoiding their career insecurity, to feel any lack of progress in achieving their desired career goals. In future research, the impact of avoidance coping as a mediator should be assessed using a longer time lag such as one year (e.g., De Vos et al., 2009).

Regarding approach coping, its significant role as a mediator was demonstrated in the associations of only one dimension of career insecurity. Specifically, the contractual employment conditions dimension had positive indirect effects on both psychological wellbeing and subjective career success through the use of approach coping strategies, providing partial support to Hypothesis 2b and 3b respectively. These results are interesting considering the impact of approach coping on individual outcomes was most relevant in the context of early career individuals' worries of their future work conditions. Considering reports of the increasing number of young people engaged in precarious employment (MacDonald, 2017), early career individuals may likelier benefit from the use of approach coping strategies to deal with the stress of worrying, for example, about poor salary and working hours. In particular, the initial experiences of temporary or part-time employment among early career individuals are suggested to play a role in early career individuals' transition from precarious to more permanent job positions (Nielsen et al., 2019). To achieve this transition, approach coping strategies can help early career individuals in striving for better work conditions, while also improving their wellbeing and career satisfaction as they confront their career insecurity.

In summary, the results of the mediation analyses echo the arguments of previous researchers regarding the relevance of coping strategies to regulate the consequences of a stressor (e.g., Bell et al., 2012; Lazarus & Folkman, 1984). Even with the identification of

direct relations between career insecurity and negative outcomes in past studies (e.g., Mauno et al., 2023), our findings suggest that an individual's response to either avoid or approach the stressor can still make a difference to one's wellbeing and subjective career success. Furthermore, in similarity with the findings of Spurk and colleagues (2022), the results of this study showed how each dimension of career insecurity can relate differently, not only with outcomes like psychological wellbeing and subjective career success but also with coping strategies. These study findings provide more reason for future research to consider and assess each dimension of career insecurity separately to better pinpoint and intervene in the specific content domains heavily affecting the individual worker.

Country Differences in Career Insecurity, Ambiguity Tolerance, and Coping Strategies

In relation to Hypothesis 4, as we had expected, significant differences in early career individuals' career insecurity, ambiguity tolerance, and coping strategies were found between the four countries that were considered in this study. In similarity with previous research on employment insecurity (e.g., Chung, 2019), Norway was found to have significantly lower scores in all dimensions of career insecurity in contrast to the other three countries (Italy, Bangladesh, and Indonesia). Even though job insecurity is considered a large problem among young people in Northern European countries such as Norway (Muffels, 2013), the Nordic flexicurity model is argued to provide and enhance security among its employees (Gooderham et al., 2015). Norwegian workers are argued to possess high levels of institutional trust in consideration of the generous unemployment benefits and active labor market policy that supports employees in the midst of labor market flexibility (Gooderham et al., 2015; Muffels, 2013). In light of this context, early career individuals in Norway may feel a lower sense of insecurity in contrast to other countries that have yet to achieve positive outcomes in their current efforts to address high youth unemployment rates and labor market flexibility (Liotti., 2020; Rahman et al., 2021; Raihan et al., 2016).

In addition to the reported unemployment rates and the varying transition periods from temporary to permanent jobs between countries, other country characteristics can be considered when interpreting the results. For example, the persistent issue of the informal economy in Bangladesh may increase early career individuals' worries regarding the use of their professional training and the realization of career opportunities in their future (Raihan et al., 2016). Furthermore, the strong emphasis that young Italians hold regarding the congruency of their higher education degree and chosen career path may contribute to a higher sense of insecurity in relation to their career advancements (Aleni Sestito et al., 2015; Di Palma & Reid, 2019).

In relation to aversion to ambiguity and avoidance coping, the results showed that Bangladesh and Indonesia had significantly higher levels of these variables compared to Italy and Norway. Though some studies suggest that the cultural dimension of uncertainty avoidance can have an explanatory role in individuals' coping responses (e.g., Cheng et al., 2024), this was not the case in our findings. Instead, we account for the cultural dimension of collectivism and its implications on early career individuals' responses to career stressors, considering Bangladesh and Indonesia are highly regarded as collectivist societies (Minkov & Kaasa, 2022). Such societies observe higher degrees of conformity among their individuals and have a greater need for stability to maintain social harmony (Lam & Zane, 2004). With this in mind, early career individuals in Bangladesh and Indonesia may favor more clarity in their work context and show aversion when presented with ambiguous information of their future career. Indeed, in the face of uncertainty, collectivist societies are suggested to respond more defensively and avoidantly (Yang et al., 2012). So, despite their precarious positions in the labor market, early career individuals in Bangladesh and Indonesia may still avoid their career insecurity to maintain the social norms in the work context (Guo et al., 2022; Yang et al., 2012). The results of the exploratory analyses also provide more insights to the avoidance

responses of early career individuals from Bangladesh and Indonesia to deal with their career insecurity. Specifically, more significant associations between the dimensions of career insecurity and avoidance coping were observed in the Bangladesh and Indonesia subsamples in contrast to the Italy and Norway subsamples.

With regard to approach coping, Indonesia was found to have a significantly different and higher score on this variable in comparison to the other countries. Though some studies have reported similarities in the use of approach coping between different cultures (cf. Kuo, 2011), the higher use of approach coping in Indonesia may be attributed to recent changes in their active labor market policy implementation (Rahmatutik & Laksmono, 2023). In particular, the impact of the COVID-19 pandemic initiated changes to certain programs in Indonesia such as their job loss benefit program, vocational training program, and job search assistance program (Rahmatutik & Laksmono, 2023). Considering young people are among the targeted individuals of Indonesia's active labor market policy, these recent changes may have increased the means for early career individuals to directly deal with their career insecurity.

Aversion to Ambiguity as a Moderator in Different Country Contexts

The cross-country findings from the one-way analysis of variance also supplement the interpretation of the results that emerged in the exploratory path analyses regarding the moderating role of aversion to ambiguity for each country subsample. Foremost, the absence of any significant moderation in the Italy subsample may be attributed to the low level of aversion to ambiguity observed among Italian participants. Due to this reason, aversion to ambiguity may not have served as a meaningful moderator in the career insecurity-coping relationships of this country subsample.

Norwegian participants also scored low on aversion to ambiguity, but compared to the Italian participants, they scored lower as well on career insecurity. This unique context of

Norway may have contributed to the conditional effects of aversion to ambiguity in the relationships between two career insecurity dimensions (i.e., professional education training, contractual employment conditions) and avoidance coping. In line with the perspectives of the conservation of resources theory (Hobfoll, et al., 2018), Norway would be considered a more resourceful country due to the several resources made available to its workers through their flexicurity model (Gooderham et al., 2015). Accordingly, the general high level of resources observed in Norway would significantly underscore or contrast with the coping responses of those with low levels of personal resource such as ambiguity averse individuals. Even if aversion to ambiguity was not found to strengthen the positive relationships between career insecurity and avoidance coping, early career individuals with high levels of aversion to ambiguity in Norway were still found to report consistently high levels of avoidance coping. Regardless of the level of their career insecurity, their use of avoidance strategies was higher than those with low levels of aversion to ambiguity. Due to the inherent ambiguity and uncertainty connoted with career insecurity, these highly ambiguity averse individuals may be more sensitive to this stressor. Thus, even with low levels of career insecurity, they may still react strongly to avoid the distress. In alignment with the arguments of the conservation of resources theory (Hobfoll, 1989), these exploratory results in the Norway subsample accentuates the high likelihood of those with less resources to respond in a more protective and avoidant manner.

These theoretical contentions are also supported by the exploratory results in the Bangladesh subsample. Akin to the findings of the study's total sample, the positive relationship between the employment environment dimension and avoidance coping was only significant at high levels of aversion to ambiguity in the Bangladesh subsample. These results further highlight the impact of aversion to ambiguity on early career individuals' avoidance coping responses to career insecurity. Interestingly, though the results of the total sample

reported no significant moderation in the career insecurity-approach coping relationships, the exploratory results in the Bangladesh subsample found otherwise. Specifically, aversion to ambiguity played a moderating role in the association between the career opportunities dimension and approach coping in which the negative association became nonsignificant at high levels of aversion to ambiguity.

The exploratory path analyses of the Indonesia subsample reported similar findings in which aversion to ambiguity played a moderating role in two relationships between career insecurity (i.e., professional education training, contractual employment conditions) and approach coping. At high levels of aversion to ambiguity, the negative association between the professional education training dimension and approach coping became nonsignificant. At the same time, a positive association between the contractual employment conditions dimension and approach coping was observed. Essentially, these exploratory findings on aversion to ambiguity's moderating role in the career insecurity-approach coping relationships of the Bangladesh and Indonesia subsamples ran contrary to our expectations. To better interpret these unexpected findings, we refer to the recent developments of the conservation of resources theory on cross-cultural research (Hobfoll, 1989; Hobfoll et al., 2018).

In general, country-level resources, which would characterize countries as either more resourceful or less resourceful, are contended to impact an individual's stress response, in addition to the influence of individual-level resources (Hobfoll et al., 2018). Compared to Norway, which was considered as a more resourceful country, Bangladesh and Indonesia scored higher on both career insecurity and aversion to ambiguity, suggesting low availability of country-level and individual-level resources among its participants. In this regard, Bangladesh and Indonesia may be described as less resourceful countries, which would imply the use of defensive strategies among these countries' participants in response to their career

insecurity. Hobfoll et al. (2018) questioned, however, the extent to which an individual can continuously respond in a defensive manner to a stressor considering that the best use of limited resources is to invest in more resources. Furthermore, under high stress conditions, resource gain is argued to become more salient among individuals with less resources, motivating them to build a resource gain cycle (Hobfoll, 1989). Thus, in the context of Bangladesh and Indonesia, aversion to ambiguity's significant moderating role in the career insecurity-approach coping relationships may be interpreted as the attempts of ambiguity averse individuals to commence resource gain. Given the vulnerability and precarity of young people to the adverse labor market conditions, these individuals would expect higher payoffs from an initial gain of resources in their stressful circumstances. Because of this, they may be motivated to employ strategies that does not discourage approaching one's career insecurity for the purpose of resource gain. Indeed, such employment of strategies would align with the reactive resource accumulation that are suggested to be embodied in less resourceful countries, so short-term resources can be gained to deter further resource loss (Hobfoll et al., 2018).

The cultural collectivism in Bangladesh and Indonesia may also play a role in impacting the momentum and strength of resource gain among ambiguity averse individuals. In collectivist cultures, resources are argued to extend beyond individuals' respective domains and have a porous effect on other individuals as well (Hobfoll et al., 2018). The possible infusion of resources from their collective surroundings may further propel ambiguity averse individuals in Bangladesh and Indonesia to directly deal with their career insecurity. In summary, these diverse findings from the exploratory path analyses reinforce the importance of taking country contexts into account in future research that will investigate the role of ambiguity tolerance as a personal resource of early career individuals.

Limitations

In addition to the use of self-report measures, some limitations of this study need to be noted. For instance, the study sample was not balanced in its composition of students, university graduates, job searchers, and workers. With this diverse sample, on the one hand, the results of the path analyses provided greater general insights on the relations between career insecurity and other relevant variables. But on the other hand, these significant relations may change if the sample was more consistent with its participants' work experiences. Considering the correlation results found career insecurity to be positively related to job search but negatively related to employment status, the variable relations observed in this study may differ with a more focused sample. The nonsignificant correlation between student status and career insecurity also questions how career insecurity is conceptualized or experienced by university students. Even though students are included among the vulnerable group of young people in the labor market (Muffels, 2013), the possibility to continue in an educational path instead of participating in the workforce can change their perceptions of career insecurity (Nielsen et al., 2019). Previous studies have also highlighted the differences in insecurity between high skilled (e.g., university graduates) and low skilled workers (Barbieri, 2009). Considering a university degree can be regarded as a human capital resource for workers in general (Hirschi, 2012), investigating the career insecurity unique to nonskilled workers is a suggested research avenue in the future to better understand the phenomenon.

The unbalanced sample characteristics also extend to the country subsample compositions, and this may have affected the results of the variable comparisons between countries. For example, the high number of job searchers in Italy and the low number of university graduates in Bangladesh may have contributed to higher levels of career insecurity in comparison to Norway, which had a higher number of employed individuals. The

participant attrition in the T2 survey also limited the second and third hypotheses testing to a combined sample from different countries. Future research opportunities can assess the indirect and direct effects of career insecurity and coping strategies on individual outcomes in each country. In doing so, deeper insights can be attained regarding the different beneficial roles that aversion to ambiguity and avoidance coping can have on specific contexts such as collectivist countries (e.g., Kuo, 2011). For instance, the negative implications of low resources and avoidance coping on wellbeing are suggested to be more pronounced in Western or individualist countries compared to collectivist societies, where it has been observed to have less negative impact (O'Connor & Shimizu, 2002; Hobfoll et al., 2018). Future research would also benefit in the assessment of measurement invariance, which was not tested in this study, requiring cautious interpretation of the results.

As highlighted in previous paragraphs, the time lag used in this study presents both advantages and disadvantages to this research. The one-month interval to assess the relations of coping strategies to deal with career insecurity and individual outcomes offers useful insight on the short-term implications of career insecurity and coping effectiveness in light of individuals' wellbeing and career satisfaction. But the use of longer intervals such as a timespan of one to three years can better highlight the impact of career insecurity in the career progression and trajectory of the early career individual. The application of even shorter time-lags through daily diary studies can also broaden the current perspectives on the interplay between avoidance and approach coping. Implementing such study designs may help future research clarify how early career individuals can flexibly use both strategies to deal with their regular thoughts and feelings of career insecurity, as well as the short- and long-term outcomes related to these coping responses.

Implications

The study findings offer multiple implications to the understanding of career insecurity in the early career stage. In particular, the study theoretically contributes to the conceptualization of career insecurity as a multidimensional construct, with the need to consider different dimensions when assessing early career individuals' career insecurity. Even though these dimensions are interrelated, young people can still worry to varying degrees about these content domains related to their future careers (e.g., employment environment, professional education training, career opportunities, contractual employment conditions) and can cope differently with each of them.

The results of this research also contribute to the theoretical positioning of career insecurity as a stressor and the integration of stress theories to further comprehend early career individuals' coping responses to this specific career strain. The mediation findings aligned with the arguments of the transactional theory of stress and coping (Lazarus & Folkman, 1984) that highlighted the need to assess coping effectiveness based on the results or outcomes of coping. In particular, the indirect effects of contractual employment conditions on psychological wellbeing were shown to differ based on the coping strategies employed by early career individuals. Furthermore, the results of the country comparisons and exploratory analyses gave interesting insights into the postulations of the cultural transactional theory of stress and coping (Chun et al., 2006). Specifically, different levels and associations between career insecurity and coping strategies were observed among the four countries examined in this study.

In relation to ambiguity tolerance, the study findings showed some support to the desperation principle of the conservation of resources theory (Hobfoll, 1989) in which high levels of aversion to ambiguity promoted avoidance coping in response to career insecurity. On the one hand, these results can imply the significance of having ambiguity tolerance as a

personal resource to diminish early career individuals' reliance on avoidance coping. On the other hand, the findings also highlight the importance of considering the country's context as country-level resources (i.e., resourcefulness) can have implications to the coping strategies used by ambiguity averse individuals. In general, the significant differences found between countries reinforce the arguments of career theories (e.g., Lent & Brown, 2013) that assert the importance of contextualizing individual careers and its related phenomena. By contextualizing a career stressor such as career insecurity, the study results highlight the relevance of specific career insecurity dimensions, personal resources, and coping strategies in distinct country environments.

From a practical perspective, we would recommend career practitioners to perform assessments of young people's career insecurity based on various dimensions such as the ones found in this study. By doing so, the most pertinent and specific aspects of their career insecurity can be pinpointed, allowing career interventions to be uniquely tailored in addressing the greatest needs or worries of the early career individual. The findings also encourage the promotion of approach coping among young people who are dealing with the stress of navigating uncertain aspects of their career to foster or improve their wellbeing and feelings of career success. As for ambiguity averse individuals, interventions can be implemented to address the career insecurity of young people (e.g., graduates, labor market entrants) and decrease their reliance on avoidance coping strategies. For example, worries about the employment environment may need to be confronted during career transitions (e.g., university-to-work, job-to-job) or the job search process. These periods in a young person's career can become opportunities to address their aversion to ambiguity through workshops or information sessions about navigating the volatile and uncertain nature of the labor market. Furthermore, they can be directed to relevant information sources (e.g., online resources,

professional networks) that may help them gain more clarity and reduce the ambiguity surrounding the employment environment.

In relation to the cross-country findings, on a policy level, the implementation of certain programs such as the provision of job assistance and vocational training has implied benefits in reducing the career insecurity of young people. On a more local level, contextualized career interventions that are implemented in university and organizational settings can become an occasion to better support early career individuals as they cope with the impact of the national or cultural environment on their career insecurity.

Conclusion

Focusing on the early career stage in four countries, this study considered four dimensions of career insecurity (i.e., employment environment, professional education training, career opportunities, contractual employment conditions). Particularly, the relations between career insecurity, coping strategies (i.e., avoidance and approach), and individual outcomes (i.e., psychological wellbeing, subjective career success) were examined. The results found that ambiguity tolerance played a moderating role in the positive association between the employment environment dimension and avoidance coping in which higher levels of aversion to ambiguity strengthened the relationship. Avoidance coping was also found to mediate the negative relationships between the four dimensions of career insecurity and psychological wellbeing. In addition, both coping strategies were found to mediate the relationship between the contractual employment conditions dimension and subjective career success. Testing for country differences, career insecurity, coping strategies, and ambiguity tolerance were demonstrated to significantly differ between Italy, Norway, Bangladesh, and Indonesia. As much as this study's results are important to the understanding of early career individuals' current predicament in the labor market, the insights gained from this study are also applicable to other periods and stages in an individual's career. Individuals negotiate

career developmental tasks at different paces, with some tasks associated at the early career stage overlapping with future career stages (e.g., middle and later career stages; Lent & Brown, 2013; Super et al., 1996). Hence, this study's findings on individuals' coping responses to career insecurity can also benefit other types of workers who are navigating the modern career landscape as well. Lastly, the interplay between career insecurity dimensions, individual resources, and country contexts was implied in our results, suggesting a nuanced approach should be taken when attempting to comprehend an individual's experience of career insecurity.

CHAPTER 5

General Discussion

General Discussion

In light of the increasing uncertainties in the modern career path, this dissertation investigated the phenomenon of career insecurity among individuals in the early career stage**.** In accordance with the theoretical lenses of two prominent stress theories (Hobfoll, 1989; Lazarus & Folkman, 1984), career insecurity was framed as a stressor in this research project. Positing career insecurity in this light allowed the examination of resources and strategies that early career individuals use to cope with the stress induced by the construct. The three studies that were employed in this dissertation gave varying insights into the topic. Study 1, through an exploratory approach, identified four career resources profiles of university students that significantly differed in their levels of career insecurity and employability. Study 2 tested the conceptual model of coping with career insecurity and found ambiguity tolerance and coping strategies to play significant moderating and mediating roles, respectively, in the associations between career insecurity and individual outcomes. Study 3 further examined the significant relations observed in Study 2 by separately assessing the relations between each dimension of career insecurity and the other variables of interest in consideration of four country contexts. Synthesizing all the insights gained from the individual studies, the main findings and contributions of this dissertation are discussed in the succeeding paragraphs of this chapter.

A Broader Understanding of Career Insecurity: Perspectives from the Early Career Stage

A significant contribution of this research project is the insights it generated regarding career insecurity in the early career stage. Prior research has elaborated on the precarious positions of early career individuals in the labor market, along with the negative consequences of early experiences of poor-quality work and accumulative exposure to insecure employment (Kiersztyn, 2021; Nielsen et al., 2019; Simms, 2019). By focusing on

the construct of career insecurity, a broader understanding of early career individuals' worries related to their future career development was gained in extension of the current knowledge on job insecurity and other insecurity research. Furthermore, as highlighted in past research, subjective experiences or perceptions of insecurity are argued to have greater detrimental impact on labor market newcomers in contrast to their objective insecurity (e.g., temporary employment situation; Fiori et al., 2016; Klug et al., 2020; Parker et al., 2021). In consideration of early career individuals' susceptibility to objective insecure conditions, the present dissertation operationalized and provided interesting insights on young people's subjective perceptions of insecurity in a fast-paced and constantly changing work environment (Mauno et al., 2023). In brief, this research offers a complementary perspective on young people's insecure positions in the labor market by assessing their perceptions of career insecurity.

In their conceptualization of the career insecurity measure, Spurk and colleagues (2022) commented on the limits of their measurement's generalizability on certain populations. They speculated that the fit or relevance of all the dimensions or content domains of career insecurity would not be applicable to some groups of individuals (Spurk et al., 2022). In response to their recommendation for further research, this dissertation tested the applicability of four career insecurity dimensions in the early career stage, namely, employment environment, professional education training, career opportunities, and contractual employment conditions.

The latter two dimensions are among the content domains of career insecurity that Spurk and colleagues (2022) previously identified. As for employment environment and professional education training, the inclusion of these dimensions in the research allowed for a broader measurement of career insecurity in the early career stage. To elaborate, the employment environment dimension touches on the issue of young people’s successful

transition from school to work and entry into the labor market, which have meaningful implications for both early career success and long-term career success (Wendlandt & Rochlen, 2008). Whereas the professional education training dimension considers young people's difficulties in predicting which vocational skills and competences will be needed to remain relevant in the unpredictable environment of the future of work (Mauno et al., 2023). By measuring early career individuals' worries of the employment environment and professional education training, young people's concerns regarding their future employment opportunities and investment in education were better captured in the research. In light of these considerations, this dissertation contributes to the growing field of research on career insecurity by presenting these measures that have greater generalizability to the early career stage.

Generally, the results of this dissertation showed support to the conceptualization of career insecurity as a multifaceted construct, with dimensions sharing insecurity as a common core while still being distinct from each other (Cai et al., 2024; Spurk et al., 2022). Assessing young people's career insecurity using four dimensions offers a more comprehensive understanding of the construct in contrast to the one-dimensional conceptualizations of career insecurity in past studies (e.g., Höge et al., 2012). Additionally, the findings of Study 1 and Study 3 provided further insights on the relevance of each dimension. Study 1 highlighted how university students' thoughts and worries of career opportunities and contractual employment conditions significantly differed based on the career resources they possessed. Whereas Study 3 observed varying relationships between each dimension of career insecurity and other variables of interest. The cross-country results of Study 3 also found significant differences in the perceptions of career insecurity dimensions between countries, as well as the relations between the four career insecurity dimensions and coping responses.

Along with the results of Study 2, the results of Study 3 contribute to the research of this construct's generalizability in country samples that have not yet been examined in past studies (e.g., Cai et al., 2024; Spurk et al., 2022). Much more, the findings have implications on the varying levels of career insecurity that can exist between countries, emphasizing the need to deliberately consider the context when examining the construct. In addition to this dissertation's proposition of the particular career insecurity experienced in the early career stage, the country environment adds another layer of context that can further shape young people's assessment of their career insecurity.

From a methodological perspective, Study 2 and Study 3 provided insights on the factor structure of career insecurity, with the results complementing prior validation studies of the construct (e.g., Cai et al., 2024). Similar to the findings of Spurk and colleagues (2022), career insecurity was shown to have good model fit either as a latent second-order construct or as a four-factor construct. Career insecurity has been conceptualized as a reflective construct in which individual perceptions of each career insecurity dimension are affected by the individual's overall perception of their career insecurity in an insecurity-related perception process (Edwards, 2001; Fleuren et al., 2018; Spurk et al., 2022). Depending on the researcher or practitioner's intention, whether to gain a general overview of the phenomenon or to pinpoint the most pertinent career aspect worrying an individual, career insecurity can be assessed as an overall score or by its separate dimensions (Cai et al., 2024; Spurk et al., 2022). For example, the exploratory results of Study 3 better elaborated on the more pertinent dimensions of career insecurity among early career individuals in each country based on the significant relations between the career insecurity dimensions and coping responses. In general, the results of each study in this dissertation demonstrated the usefulness of the career insecurity measure to capture early career individuals' thoughts and worries about important aspects of their future career development.

The Significance of Resources to Cope with Career Insecurity

Past studies in the insecurity literature have asserted the important role that resources play such as in mitigating the effects between job insecurity and individual outcomes like general health and career satisfaction (Vander Elst et al., 2016; Zyberaj & Bakaç, 2022). In line with the arguments of the conservation of resources theory (Hobfoll, 1989), the three studies in this dissertation also demonstrated the significance of resources to cope with career insecurity as a stressor. Hobfoll (1989) contended the importance of fit between resources and situational demands, considering the value of a resource can vary for different stressors. In this dissertation, the resources that were examined showed relevant fit to meet the situational demands of career insecurity in the early career stage. Study 1 considered three psychological career resources (i.e., present positive time perspective, future positive time perspective, resilience) and three social career resources (i.e., university career support, social career support, studies challenge). Whereas Study 2 and Study 3 considered ambiguity tolerance as a personal resource of early career individuals. All the findings highlighted the importance of possessing these resources to either minimize university students' career insecurity (Study 1) or decrease early career individuals' use of avoidance strategies to cope with their career insecurity (Study 2 and Study 3). Responding to the threat of resource loss or a loss of expected gain, the identified resources can serve protective functions among early career individuals to offset resource depletion due to career insecurity (Hobfoll et al., 2018). In brief, these research findings contribute to both literature and practice by promoting these resources to enhance early career individuals' management of their career insecurity.

The relevance of early career individuals (e.g., university students, job seekers, young workers) possessing these resources is further emphasized in light of the conservation of resources theory's (Hobfoll, 1989) corollary on resource gain spiral. According to Hobfoll et al. (2018), because resource gain is less salient and slower compared to resource loss,

resource gain spirals are often weak and requires time to develop. Given this perspective, the promotion and development of resources to cope with career insecurity becomes more essential at the early career stage. Specifically, the promotion of the identified resources can start as early as an individual's school or university period, so they can be better equipped in confronting their career insecurity during the initial phases of their careers. Moreso, should workers be able to develop the said resources during the early career stage, these would have positive implications to their later career stages, especially considering the lingering effects of career insecurity (Mauno et al., 2023). As was also suggested in the exploratory results of Study 3, the high-loss or high stress conditions of the labor market where early career individuals are situated in may increase the saliency among young people to further increase their available resources.

The results of the dissertation also have implications to the argumentations of the Hobfoll (1989) regarding the interrelationship of resources, which was later conceptualized as resource caravans. In their theory, Hobfoll et al. (2018) contended that resource caravans exist given the likely emergence of personal resources from nurturing environments or conditions such as supportive families or organizations. In the career resources model, Hirschi (2012) clarifies this notion by elaborating on social career resources, which are conceptualized as the only career resources that individuals attain from their environment. The significant results of Study 1 touch on this concept of resource caravans in its observation of psychological and social career resource combinations that promoted university students' employability and lessened their career insecurity.

The propositions on resource caravans are further extended to how environments and contexts can serve as conducive or non-conducive grounds for the creation, maintenance, or limitation of resources (Hobfoll et al., 2018). Referred to as resource caravan passageways, social and environmental conditions are argued to create, maintain, and foster resources

among individuals who are exposed to such environments, suggesting a crossover of resources in settings such as organizations and even cultures (Hobfoll et al., 2018). The results of Study 3 regarding the significant country differences in early career individuals' career insecurity and ambiguity tolerance may be interpreted in light of this perspective on resource caravan passageways. Particularly, country contexts (e.g., cultural norms, institutional policies) can facilitate the passage or crossover of resources that early career individuals need to cope with their career insecurity. For example, the institutional context of Norway with its active labor market policy may be perceived to provide resources for its young workers and diminish their career insecurity (Nielsen et al., 2019). The collectivist cultures as well of Bangladesh and Indonesia have implications of creating a supportive family and societal environment that can help young people confront their concerns regarding their future careers (e.g., Liu et al., 2016). Individual motivations for resource accumulation have also been speculated to depend on the country environment (i.e., more resourceful countries promote preventive resource accumulation, whereas less resourceful countries promote reactive resource accumulation; Hobfoll et al., 2018).

In summary, the views on resource caravan passageways further reinforce the dissertation’s recommendation on the promotion of resources among early career individuals by focusing on their social environments. For instance, universities can first prioritize the provision of social career resources to help promote the maintenance or later development of university students' psychological resources. Organizations and societies in general are also recommended to promote the facilitation of early career individuals' resources through their policies and services. By acknowledging early career individuals as members of their workforces, organizations and society can also benefit from the resources that early career individuals share and contribute to their environment.

The Contributions of the Conceptual Model of Coping with Career Insecurity

Previous researchers have stated the need for more studies to examine career stressors that pose risks to individuals' success in the modern work environment, as well as individuals' coping response to these stressors (Spurk et al., 2019). This dissertation responds to this call in career research and contributes to the existing knowledge on the significant relations between career insecurity, which is considered a career stressor, and negative outcomes (e.g., Cai et al., 2024; Colakoglu, 2011; Spurk et al., 2024). Specifically, the present research proposed a conceptual model of coping with career insecurity that offers two main contributions to the research field. Firstly, the model examined the direct relations between career insecurity and coping strategies, as well as the intervening roles that approach and avoidance coping strategies played in the associations between career insecurity and individual outcomes (i.e., psychological wellbeing, subjective career success). Secondly, the model assessed the moderating role of resources in the proposed relationships between career insecurity and coping strategies.

Coping Strategies

One of the main findings of this dissertation that was consistent across the two studies that tested the conceptual model of coping with career insecurity was the positive relationship between career insecurity and avoidance coping. This result was first observed in Study 2, which used an overall score of career insecurity, and it was observed again in Study 3, which found significant positive relations between all dimensions of career insecurity and avoidance coping. This consistent response for early career individuals to avoid their career insecurity echoes the insights of past research about individuals' use avoidance coping in response to a stressor that is deemed uncontrollable (Biggs et al., 2017). In light of this perspective, the findings of the present research add to the discussion regarding the nature of career insecurity as an uncontrollable stressor. Prior studies have commented on this view and contended that

career insecurity indicates a lack of control in one's career, seemingly reducing an individual's sense of agency over their career development (Cai et al., 2024; Colakoglu, 2011; Höge et al., 2012; Spurk et al., 2022). Such perspective shares similarities with the arguments of previous job insecurity research that considers the lack of control as the core insecurity problem of the construct (De Witte, 2005; Greenhalgh & Rosenblatt, 1984; Vander Elst et al., 2012).

The resulting relations between career insecurity and approach coping in Study 2 and Study 3 may provide additional insights to this perspective of career insecurity as an uncontrollable stressor. In both studies, career insecurity was consistently found to be negatively related to approach coping even though in Study 3, only one dimension of career insecurity (i.e., professional education training) was significantly related to it. The initial hypothesis in Study 2 considered career insecurity to positively relate to approach coping, considering individuals can employ multiple strategies to manage a stressor (e.g., Tien et al., 2005). However, the feelings of uncontrollability connoted with career insecurity may make it difficult for early career individuals to directly confront the stressor (Hayden et al., 2021), thus discouraging the use of approach coping strategies.

Another interpretation of these results regarding the associations between career insecurity and the two examined coping strategies concerns the few resources that early career individuals possess. With only a small handful of years of exposure to opportunities for building career resources (e.g., human capital, social capital, career identity; Okay-Somerville et al., 2022), early career individuals may find it more difficult to approach their career insecurity compared to other workers. In general, their lack of prior job search and job experiences may contribute to early career individuals’ avoidance responses to career insecurity given their limited knowledge to navigate such a stressor (Knight & Okay-Somerville, 2024).

In relation to the results of Study 3, country contexts are also suggested to play a relevant role in understanding early career individuals' use of coping strategies in response to their career insecurity. For example, the direction of the relationships between the career insecurity dimensions and coping strategies for each country subsample in Study 3 aligned with the results of the total sample. But the significance of these relations was not consistently observed across countries. Additionally, some countries reported higher use of either approach or avoidance coping strategies compared to others. In light of these findings, country environments and norms are speculated to have some degree of impact on early career individuals' responses to cope with their career insecurity.

Ambiguity Tolerance

Past research has observed the significant role that moderators can play in the associations between career insecurity and outcomes (Cai et al., 2024). This dissertation attempted to extend this insight by considering a moderating variable in the relationships between career insecurity and the two coping strategies. Specifically, ambiguity tolerance, a personal resource, was hypothesized as a moderator to help clarify the likelihood or conditions of early career individuals' use of approach and avoidance coping in response to their career insecurity. The results of Study 2 and Study 3 did not find ambiguity tolerance to play a significant moderating role in the career insecurity-approach coping relationships. Instead, the studies found some support to the moderating and protective role that ambiguity tolerance played to decrease the use of avoidance coping in early career individuals' response to career insecurity. Both studies also gave interesting insights into the multidimensional nature of ambiguity tolerance and its varying significance between countries. Specifically, preference to ambiguity was found to play a moderating role in the career insecurity-avoidance coping relationship in the Italian sample of Study 2. But the nonsignificant findings on aversion to ambiguity were consistent in both Italian samples of Study 2 and

Study 3. The relevance of aversion to ambiguity as a moderating variable, however, was more apparent in the exploratory findings of the Norway, Bangladesh, and Indonesia subsamples of Study 3. These insightful results seem to align with the contentions of cross-cultural research, which argue that the value of a resource can be contingent to specific contexts (Jang et al., 2018).

In general, the results on the moderating role of ambiguity tolerance in the career insecurity-avoidance coping relationship can be interpreted in line with Hobfoll's (1989) viewpoints. Specifically, individuals low on ambiguity tolerance (i.e., either possessing low preference to ambiguity or high aversion to ambiguity) are likelier to evaluate their potential losses, determine the costs and benefits of expending their remaining resources, and analyze their success likelihood should they use a nonavoidant coping strategy. These low-resource individuals may evaluate the potential losses caused by career insecurity to outweigh their chances of succeeding and benefitting from a nonavoidant strategy, resulting in their use of defensive or avoidance strategies to cope with career insecurity. Generally, the significant results on ambiguity tolerance from this dissertation can be considered a valuable contribution to both the literature on careers and stress. Additionally, it provides practical implications in the implementation of career interventions by targeting individuals with low ambiguity tolerance to help them manage their use of avoidance strategies when coping with career insecurity.

Since ambiguity tolerance was not found to have a significant role in promoting the use of approach coping strategies in response to career insecurity, an alternative perspective on coping responses to career insecurity can be considered. Past research has contended that, in addition to the resources that are available to an individual, coping responses can also depend on the individual's proximal goal during the stressful situation (Lazarus, 1991; Mayordomo-Rodríguez et al., 2015; Smith et al., 2011). Applying this perspective, the

proximal goal that an early career individual can have when coping with their career insecurity may be to prioritize the management of their increasing negative feelings caused by the stressor (Cai et al., 2024). Such contention may be relevant to this dissertation's results considering the research designs of Study 2 and Study 3, which involved asking participants about their coping response immediately or right after their reflections of their personal career insecurity. Their coping responses may then be interpreted as their immediate reaction to the stressor, making their proximal goal to focus on the unexpected emotions aroused instead of finding a practical and immediate solution to the problem. This line of thinking may help explain why the present research generally observed avoidance strategies to be the likelier response among early career individuals to cope with their career insecurity instead of approach strategies.

Coping Effectiveness

Similar to the findings of past research (Cai et al., 2024; Colakoglu, 2011; Spurk et al., 2022), the results of Study 2 and Study 3 also found career insecurity to negatively relate to both psychological wellbeing and subjective career success. But an added contribution of this dissertation is its assessment of career insecurity outcomes in relation to early career individuals' coping strategies. As recommended by stress theories, the effectiveness of coping strategies can be assessed based on its related outcomes such as its capacity to limit resource loss or enable resource gain (Hobfoll, 1989; Lazarus & Folkman, 1984). In this research, psychological wellbeing and subjective career success were hypothesized as coping outcomes. Study 2 did not find any significant relations between avoidance coping and the two measured outcomes, whereas Study 3 found significant negative relations only between avoidance coping and psychological wellbeing. In addition, the significant mediating role of avoidance coping was only highlighted in Study 3, which found significant indirect effects of all career insecurity dimensions on psychological wellbeing via avoidance coping. The

dissertation's inconsistent findings regarding avoidance coping suggest careful consideration of this coping strategy, especially since early career individuals may be prone to use avoidance strategies to cope with their career insecurity. These general results indicate that, on the one hand, the use of avoidance strategies to cope with career insecurity can be maladaptive to early career individuals, aligning with the findings of past coping research (e.g., MacIntyre et al., 2020). On the other hand, some uses of avoidance coping (e.g., as a short-term strategy) may have a more neutral, or even irrelevant, impact on early career individuals' wellbeing and subjective career success. Other studies have also suggested the benefits that avoidance strategies can offer among individuals who are not clearly cognizant of their personal emotions (e.g., Baker & Berenbaum, 2007).

As for approach coping, the research found consistent results across Study 2 and Study 3 in which this coping strategy positively related to both psychological wellbeing and subjective career success. The significant mediating role of approach coping in the relations between career insecurity and the two outcomes was also supported by the results of both studies. In Study 3, however, approach coping only mediated the relations between the contractual employment conditions dimension of career insecurity and its outcomes. The results from both studies generally support the current literature's view of approach strategies as the more adaptive coping response (e.g., Taylor & Stanton, 2007). But promoting the use of approach strategies among early career individuals who are coping with their career insecurity may pose as a challenging task considering the dissertation's findings on the negative relations between these two variables.

The results of Study 3 pose another question to the intervening role of approach coping, which was not a significant mediator in the associations between the other three dimensions of career insecurity (i.e., employment environment, professional education training, career opportunities) and the measured outcomes. These nonsignificant findings,

however, can also be understood from a methodological viewpoint. For instance, the multidimensionality of career insecurity that was examined in Study 3 may not have complemented the general measures that were used to assess individuals' wellbeing and subjective career success. Some researchers have contended that the multidimensionality of these two outcome variables need to be considered to achieve better understanding of variable relations (e.g., Spurk et al., 2019). Based on these perspectives, it can be speculated that approach coping can play a more significant role as a mediator if each dimension of career insecurity was related to the multifaceted aspects of subject career success and wellbeing (e.g., applying a whole-life perspective on career wellbeing; Steiner & Spurk, 2019).

Model Implications

Despite some open questions that the present research was not able to address, the implications of the conceptual model of coping with career insecurity, which was tested in this dissertation, cannot be disregarded. Firstly, the proposed model provides a structure for future research to assess relevant relationships between career insecurity and other variables that go beyond the current findings in the literature (Cai et al., 2024; Colakoglu, 2011). Secondly, the present research generally highlighted early career individuals' use of coping strategies in response to their career insecurity. These results provide insights for both researchers and practitioners about the forms of coping responses that should be targeted when addressing young people's career insecurity. Thirdly, the conceptual model encourages the examination of resources (e.g., psychological, social) that can serve as moderators to facilitate adaptive coping and limit maladaptive coping among early career individuals. Fourthly, the perspectives gained regarding the effectiveness of approach and avoidance coping in response to career insecurity align with the insights of past research that highlighted the importance of successful coping for an individual's career management (e.g., Ortlieb &

Weiss, 2018). Considering the increasing unpredictability of modern career progressions, individuals' coping experiences in the early career stage can later inform their responses or behaviors to confront subsequent uncertainties in the succeeding career stages (Kruglanski et al., 2024). By learning to adopt the most adaptive forms of coping in response to their career insecurity during the early stages of their careers, young workers can become more equipped to act confidently in achieving greater positive outcomes in their future careers.

General Limitation and Future Research Directions

The interpretation of the findings presented in this dissertation necessitates careful consideration regarding the research project's general limitations. Foremost, the use of self-report measures in all the studies does not rule out issues of common method variance and response bias among the research participants. Moreover, the participant compositions of each study in the dissertation have concerns regarding the sample representativeness in reference to the early career stage. The samples of Study 2 and Study 3, for example, observed imbalances among the number of university graduates, job seekers, and workers that participated in the study. These studies attempted to broaden the generalizability of its results by considering the different statuses or activities that early career individuals can be engaged in. But at the same time, the diverse range of participants' experiences can create divergent or inconsistent perceptions of career insecurity during the early career stage, along with an unequal distribution of available resources (Hobfoll, 1989). Even in Study 1, which focused solely on university students, the participants' field of education were not representative, with certain specializations being overrepresented in the sample.

This dissertation's general limitations can be mindfully addressed in future research through the employment of alternative research designs and methodologies. For example, the inclusion of other sources of data can supplement the self-reported perceptions of participants regarding each study variable. Career resources and coping strategies can be evaluated

through reports from peers, colleagues, or supervisors, in addition to the use of available data regarding participants' activities in university or organizational interventions (e.g., attendance in professional development workshops, participation in career counselling sessions). Furthermore, subjective (i.e., career insecurity scale) and objective (e.g., national unemployment rates) measures of early career individuals' insecurity can be integrated in future analyses to provide a more comprehensive and complementary assessment of the phenomenon. A focus group research design can also be used to deepen the findings of this dissertation regarding career insecurity, coping strategies, and resources. In general, qualitative studies have the potential to meticulously explore the unique experiences of career insecurity in the early career stage, as well as the meaningfulness of resources and strategies employed by young people from different and similar backgrounds (Hobfoll et al., 2018; Kauhanen & Natti, 2015; Nielsen et al., 2019).

The research designs that were implemented in this dissertation were also limited in its assessment of early career individuals' resource gain and resource depletion over time (Hobfoll, 1989; Hobfoll et al., 2018) in response to their career insecurity. The use of longitudinal study designs is encouraged to expand and clarify the significance of early career individuals' resources in light of their resource gains and losses amidst their coping process with career insecurity. Future longitudinal research can also better assess the development trend of early career individuals' resources. Specifically, evaluations can be performed to comprehend which resources are initially available among young people and how these resources change over the course of the early career stage. Furthermore, the resource preservation and resource gain strategies of early career individuals in contexts of high career insecurity and low resources can be examined.

More testing of the conceptual model of coping with career insecurity is recommended in which additional waves and longer time intervals can be implemented. By

doing so, a more comprehensive perspective regarding the effectiveness of coping strategies can be attained in relation to early career individuals' psychological wellbeing and subjective career success. The investigation of other moderating variables that can mitigate or facilitate the use of coping strategies in response to career insecurity is also encouraged, with considerations for the cognitive, emotional, and behavioral dimensions of coping. For example, an individual's personal need for structure (i.e., their dispositional attitude to structure the social environment, preferring clarity and order; Neuberg & Newsom, 1993) may moderate their cognitive responses to career insecurity. Whereas social career resources can play a moderating role in early career individuals' behavioral coping responses to career insecurity (Chao, 2011). Future testing of the model can also probe for moderated mediation effects, which were not found in the analysis results of both Study 2 and Study 3 of this dissertation.

Additionally, future examinations of the model can consider assessing one more variable relationship to comprehend how individuals respond differently to career insecurity, untangling the notion that the construct is an unsolvable problem (Cai et al., 2024). To elaborate, previous studies have asserted the complementary function between approach and avoidance coping strategies, wherein positive outcomes can be attained when approach coping is facilitated as the consequent response after avoidance coping (Mayordomo-Rodríguez et al., 2015; Mayordomo et al., 2016). Such perspective can be applied to early career individuals' coping strategies in response to career insecurity in light of the results that avoidance strategies are the more common coping responses among them. Specifically, the short-term benefits of avoidance coping can be first acknowledged to help young people manage and minimize the distress brought by career insecurity (Mayordomo et al., 2016). Through such means, avoidance coping prevents the individual from being overwhelmed with their emotions and provides them with some distance from the stressor. By doing so,

they can create an opportunity to calmy and eventually approach the problem and determine the steps to remove the stressor or diminish its impact (Mayordomo-Rodríguez et al., 2015). This hypothesized relationship between avoidance and approach coping suggests a future area of concern for research to determine the moderating variable(s) that can facilitate the said coping strategies in response to young people's career insecurity. Some suggested moderators in the hypothesized avoidance-approach coping relationship are ambiguity tolerance (Hogg, 2024), career goals (Eby et al., 2003), career identity (Colakoglu, 2011), and protean career orientation (Höge et al., 2012).

More cross-country or cross-cultural studies are needed as well to assess the similarities and differences of early career individuals' coping responses to career insecurity and the significance of their coping resources across diverse social environments. On the one hand, the core elements of resources or what people centrally value (e.g., wellbeing) are contended to be universal across cultures (Hobfoll et al., 2018). But on the other hand, certain resources (e.g., job control) have been contended to hold different values among individuals depending on their country or cultural context (Jang et al., 2018). The relationship between resources and wellbeing has also been argued to carry more significance in individualist societies compared to collectivist societies (Hobfoll et al., 2018). Such contentions would encourage a reevaluation of the fit between resources and the situational demands of career insecurity, considering the latter may vary to some extent across different country environments (Hobfoll, 1989). Given the present research did not consider resources that have additional value in certain cultural contexts, future studies are recommended to incorporate these variables into their models. By taking these into account, a broader picture can be obtained regarding the resources that early career individuals from different backgrounds value to help them confront their career insecurity.

Lastly, based on the findings of the three studies presented in this dissertation, future career insecurity research is also suggested to use the frameworks of existing career development theories to further comprehend the phenomenon. For example, the perspectives of the social cognitive career theory (Lent & Brown, 2013) can frame career insecurity as an outcome expectation, which is theoretically related to adaptive career behaviors. In accordance with this view, career insecurity can be understood as negative anticipations of future career experiences (Lent et al., 2008). Due to its uncontrollable aspects, career insecurity may decrease early career individuals' motivations in their career self-management and adoption of adaptive career behaviors (Lent & Brown, 2013). In relation to Super's (1957) career stage theory, the dimensions of career insecurity can give insights into which developmental task an early career individual is struggling with as they transition to a new career stage. Super et al. (1988) also acknowledged the occurrence of interruptions in linear career progressions wherein individuals would refocus again on developmental tasks and concerns that they had already addressed in the past. For example, instead of building a job niche or progressing with an upward career mobility (e.g., promotion), early career individuals may find themselves reexploring career paths and acquiring a different set of career-relevant skills (Super et al., 1988). Considering these perspectives of Super's (1957) theory are used in the research on career transitions (e.g., Sullivan & Al Ariss, 2021), career insecurity can be examined as a central variable that can explain the motivations of early career individuals in modern career transitions.

Concluding Remarks

This dissertation focused its investigation on the issue of career insecurity, which concerns individual perceptions and worries about their future career developing in an undesired manner (Spurk et al., 2022). The results of the research underscored the relevance of integrating two stress theories (Hobfoll, 1989; Lazarus & Folkman, 1984) to theoretically

comprehend and assess the phenomenon of career insecurity as a stressor in the early career stage. In contribution to the growing research of the topic in the insecurity and career literature, this dissertation presented relevant findings regarding the resources and strategies that early career individuals employ to manage and cope with their career insecurity.

The unpredictable and uncertain nature of modern careers emphasizes the significance of investigating career insecurity in the context of the early career stage, especially considering the increased risks and precarity that young people are facing in the current labor market. As the contemporary work environment is expected to observe more rapid changes in the future, acknowledging the reality of contemporary careers can be an important step for early career individuals in their coping process with career insecurity. Shifting their focus from what they cannot control, early career individuals are encouraged to concentrate instead on the resources and coping strategies that they can adaptively use to navigate their career insecurity.

One suggestion is to reevaluate the value that society places on stable employment (Hobfoll, 1989) and steer young people's perspectives into achieving a sustainable career. This dissertation's approach in investigating career insecurity touched on some considerations of the sustainable career perspective (De Vos et al., 2020) through its examination of the person dimension (i.e., psychological resources, coping strategies), the context dimension (i.e., countries' institutional and cultural contexts), and the time dimension (i.e., the immediate impact in the early career stage). To a certain extent, the research findings have implications for the sustainable careers of young people in which the interplay of their surroundings and adaptive responses can impact early career individuals' management of their career insecurity. In this light, educational and career systems (Heckhausen, 2010) are also advocated to significantly contribute to the transitions of early career individuals from precarious positions to more sustainable career mobility.

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Supplementary Materials

Study 2. Coping with career insecurity in the early career stage: The moderating role of ambiguity tolerance

Method

Measures

Coping

Instructions: “These sentences deal with ways you've been coping with the worries or concerns that you’ve had in the past month about your career. There are many strategies to try to deal with these worries or concerns. These sentences ask what you've been doing to cope with your worries or concern about your career. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each sentence says something about a particular way of coping. I want to know to what extent you've been doing what the sentence says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use the response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can. To cope with my worries and concerns about my career…”

Results

Table 5

Moderation analyses results without control variables

	Approach coping				Avoidance coping			
	B	*SE*	β	*p*	*B*	*SE*	β	*p*
Preference moderation model								
Career Insecurity	-.073	.031	-.109	.017	.249	.031	.370	< .001
Preference	.344	.043	.368	< .001	-.138	.043	-.146	.001
Preference x Career insecurity	-.087	.048	-.083	.072	-.093	.049	-.088	.058
Aversion moderation model								
Career Insecurity	-.018	.037	-.027	.627	.158	.035	.235	< .001
Aversion	-.217	.041	-.289	< .001	.195	.039	.258	< .001
Aversion x Career insecurity	-.054	.037	-.071	.138	-.053	.035	-.068	.133

Table 6

Path analysis results predicting psychological wellbeing and subjective career success without control variables

	Psychological wellbeing				Subjective career success			
	B	*SE*	β	*p*	*B*	*SE*	β	*p*
Career Insecurity	-.181	.064	-.266	.005	-.227	.097	-.210	.018
Approach coping	.200	.079	.197	.012	.302	.137	.186	.028
Avoidance coping	-.094	.096	-.093	.327	-.058	.168	-.036	.728

Table 7

Estimates and confidence intervals of total, direct, and indirect effects for psychological wellbeing and subjective career success without control variables

Path	Lower 2.5%	Lower 5%	Point estimate	Upper 5%	Upper 2.5%
Total effects from career insecurity to psychological wellbeing	-.335	-.319	-.226	-.125	-.104
Total indirect effects	-.097	-.088	-.045	-.003	.005
Specific indirect effects					
Career insecurity → Approach coping → Psychological wellbeing	-.055	-.049	-.022	-.006	-.003
Career insecurity → Avoidance coping → Psychological wellbeing	-.072	-.063	-.023	.016	.024
Direct effect of career insecurity to psychological wellbeing	-.302	-.282	-.181	-.073	-.050
Total effects from career insecurity to subjective career success	-.435	-.412	-.274	-.121	-.094
Total indirect effects	-.138	-.122	-.047	.026	.038
Specific indirect effects					
Career insecurity → Approach coping → Subjective career success	-.090	-.079	-.033	-.008	-.004
Career insecurity → Avoidance coping → Subjective career success	-.103	-.085	-.015	.053	.065
Direct effect of career insecurity to subjective career success	-.401	-.376	-.227	-.055	-.023

Study 3. Early career individuals' career insecurity and coping responses: A cross-country study

Method

Table A

Cumulative activities of the sample

	Total	Italy	Norway	Bangladesh	Indonesia
Graduate and working	87 (17.68%)	14 (11.38%)	30 (24.39%)	1 (0.81%)	42 (34.15%)
Studying only	86 (17.48%)	14 (11.38%)	6 (4.88%)	42 (34.15%)	24 (19.51%)
Studying, graduate, and job searching	44 (8.94%)	7 (5.69%)	7 (5.69%)	26 (21.14%)	4 (3.25%)
Studying and graduate	42 (8.54%)	26 (21.14%)	8 (6.50%)	5 (4.07%)	3 (2.44%)
Studying, graduate, and working	40 (8.13%)	13 (10.57%)	15 (12.20%)	4 (3.25%)	8 (6.50%)
Graduate, job searching, and working	39 (7.93%)	5 (4.07%)	11 (8.94%)	4 (3.25%)	19 (15.45%)
Studying and job searching	34 (6.91%)	8 (6.50%)	1 (0.81%)	17 (13.82%)	8 (6.50%)
Studying and working	29 (5.89%)	13 (10.57%)	11 (8.94%)	3 (2.44%)	2 (1.63%)
Working only	20 (4.07%)	16 (13.01%)	3 (2.44%)	1 (0.81%)	0 (0.00%)
Studying, graduate, job searching, and working	20 (4.07%)	0 (0.00%)	13 (10.57%)	3 (2.44%)	4 (3.25%)
Graduate and job searching	15 (3.05%)	2 (1.63%)	4 (3.25%)	6 (4.88%)	3 (2.44%)
Studying, job searching, and working	14 (2.85%)	2 (1.63%)	3 (2.44%)	8 (6.50%)	1 (0.81%)
Job searching only	4 (0.81%)	1 (0.81%)	1 (0.81%)	0 (0.00%)	2 (1.63%)
Job searching and working	4 (0.81%)	1 (0.81%)	2 (1.63%)	1 (0.81%)	0 (0.00%)
Graduate only	2 (00.41%)	0 (00.00%)	0 (00.00%)	0 (00.00%)	2 (01.63%)

Results

Table B

Pairwise comparisons of career insecurity mean scores

(I) Career Insecurity dimension	(J) Career Insecurity dimension	Mean Difference (I-J)	SE	95% CI
Employment Environment	Professional Education Training	.421**	.037	.323 to .519
	Career Opportunities	.417**	.035	.324 to .509
	Contractual Employment Conditions	.109*	.035	.016 to .201
	Employment Environment	-.421**	.037	-.519 to -.323

Professional Education Training	Career Opportunities	-.005	.039	-.107 to .098
	Contractual Employment Conditions	-.312**	.044	-.43 to -.195
Career Opportunities	Employment Environment	-.417**	.035	-.509 to -.324
	Professional Education Training	.005	.039	-.098 to .107
	Contractual Employment Conditions	-.308**	.031	-.39 to -.225
Contractual Employment Conditions	Employment Environment	-.109*	.035	-.201 to -.016
	Professional Education Training	.313**	.044	.195 to .43
	Career Opportunities	.308**	.031	.225 to .39

Note. CI = Confidence Interval.

* $p < .05$

** $p < .01$

Table C

Italy Correlations

		Gender	1	2	3	4	5	6	7	8	8a	8b	8c	8d	9	10	11
1	Age	-.238**															
2	Studying	.312**	-.426**														
3	University graduate	.119	.214*	.015													
4	Job searching	-.092	-.080	-.030	-.011												
5	Employed / working	-.307**	.331**	-.547**	-.104	-.226*											
6	Neuroticism	-.117	-.125	.028	-.103	-.008	-.136										
7	Aversion to ambiguity	.184*	-.156	.025	.100	-.059	.050	.102									
8	Career Insecurity	.303**	-.259**	.111	.029	.135	-.083	.181*	.597**								
8a	CI: Employment Environment	.378**	-.262**	.169	.106	.069	-.142	.187*	.489**	.876**							
8b	CI: Professional Education Training	.263**	-.303**	.207*	-.040	.114	-.205*	.127	.509**	.778**	.594**						
8c	CI: Career Opportunities	.173	-.186*	-.007	-.032	.118	.065	.172	.520**	.877**	.665**	.572**					
8d	CI: Contractual Employment Conditions	.215*	-.131	.008	.065	.157	.002	.132	.511**	.870**	.724**	.474**	.755**				
9	Avoidance coping	.056	-.042	-.162	-.108	.082	.065	.261**	.511**	.429**	.361**	.341**	.361**	.394**			
10	Approach coping	.022	.078	-.092	.091	.008	.098	-.007	-.085	-.167	-.131	-.349**	-.076	-.011	.021		
11	Psychological well-being	-.002	.022	-.116	.134	.062	-.081	.157	-.189	-.231	-.187	-.336*	-.126	-.137	-.347*	.394**	
12	Subjective career success	-.076	-.152	.044	.120	-.113	-.089	.218	-.258	-.366*	-.287	-.293	-.305*	-.377*	-.217	.268	.038

Note. CI = Career Insecurity.

* $p < .05$

** $p < .01$

Table D

Norway Correlations

		Gender	1	2	3	4	5	6	7	8	8a	8b	8c	8d	9	10	11
1	Age	-.238**															
2	Studying	.312**	-.426**														
3	University graduate	.119	.214*	.015													
4	Job searching	-.092	-.080	-.030	-.011												
5	Employed / working	-.307**	.331**	-.547**	-.104	-.226*											
6	Neuroticism	-.117	-.125	.028	-.103	-.008	-.136										
7	Aversion to ambiguity	.184*	-.156	.025	.100	-.059	.050	.102									
8	Career Insecurity	.303**	-.259**	.111	.029	.135	-.083	.181*	.597**								
8a	CI: Employment Environment	.378**	-.262**	.169	.106	.069	-.142	.187*	.489**	.876**							
8b	CI: Professional Education Training	.263**	-.303**	.207*	-.040	.114	-.205*	.127	.509**	.778**	.594**						
8c	CI: Career Opportunities	.173	-.186*	-.007	-.032	.118	.065	.172	.520**	.877**	.665**	.572**					
8d	CI: Contractual Employment Conditions	.215*	-.131	.008	.065	.157	.002	.132	.511**	.870**	.724**	.474**	.755**				
9	Avoidance coping	.056	-.042	-.162	-.108	.082	.065	.261**	.511**	.429**	.361**	.341**	.361**	.394**			
10	Approach coping	.022	.078	-.092	.091	.008	.098	-.007	-.085	-.167	-.131	-.349**	-.076	-.011	.021		
11	Psychological well-being	-.002	.022	-.116	.134	.062	-.081	.157	-.189	-.231	-.187	-.336*	-.126	-.137	-.347*	.394**	
12	Subjective career success	-.076	-.152	.044	.120	-.113	-.089	.218	-.258	-.366*	-.287	-.293	-.305*	-.377*	-.217	.268	.038

Note. CI = Career Insecurity.

* $p < .05$

** $p < .01$

Table E

Bangladesh Correlations

		Gender	1	2	3	4	5	6	7	8	8a	8b	8c	8d	9	10	11
1	Age	-.242**															
2	Studying	.171	-.413**														
3	University graduate	-.003	.546**	-.282**													
4	Job searching	-.076	.303**	-.183*	.432**												
5	Employed / working	-.174	.299**	-.263**	.081	.109											
6	Neuroticism	.266**	-.162	.041	-.036	-.036	-.130										
7	Aversion to ambiguity	-.017	.085	-.247**	.107	.174	-.037	.301**									
8	Career Insecurity	-.015	-.089	-.152	-.050	.101	-.145	.418**	.635**								
8a	CI: Employment Environment	.020	-.159	-.052	-.066	.082	-.206*	.390**	.559**	.846**							
8b	CI: Professional Education Training	.106	-.072	-.103	-.109	.038	-.137	.406**	.563**	.848**	.720**						
8c	CI: Career Opportunities	-.090	-.049	-.151	-.023	.030	-.129	.321**	.538**	.880**	.632**	.605**					
8d	CI: Contractual Employment Conditions	-.097	-.034	-.211*	.036	.203*	-.027	.307**	.509**	.838**	.563**	.537**	.765**				
9	Avoidance coping	-.154	-.035	-.297**	-.014	.074	.110	.244**	.438**	.591**	.416**	.516**	.525**	.550**			
10	Approach coping	-.108	-.053	-.268**	.037	.036	.030	.186*	.246**	.165	.176	.129	.049	.216*	.495**		
11	Psychological well-being	-.222*	-.038	-.074	.141	.002	-.003	-.119	-.210*	-.289**	-.256*	-.265**	-.235*	-.227*	-.114	.112	
12	Subjective career success	-.194	-.098	-.277**	.054	.061	.084	.046	.003	.122	.010	.097	.142	.154	.159	.275**	.417**

Note. CI = Career Insecurity.

* $p < .05$

** $p < .01$

Table F

Indonesia Correlations

		Gender	1	2	3	4	5	6	7	8	8a	8b	8c	8d	9	10	11
1	Age	.296**															
2	Studying	-.410**	-.625**														
3	University graduate	.324**	.731**	-.669**													
4	Job searching	-.105	-.012	-.040	.054												
5	Employed / working	.389**	.622**	-.635**	.738**	-.055											
6	Neuroticism	-.192*	-.340**	.227*	-.111	.076	-.066										
7	Aversion to ambiguity	-.230*	-.310**	.272**	-.269**	.099	-.282**	.411**									
8	Career Insecurity	-.097	-.330**	.069	-.268**	.078	-.211*	.295**	.633**								
8a	CI: Employment Environment	-.008	-.279**	.039	-.257**	.108	-.188*	.200*	.498**	.895**							
8b	CI: Professional Education Training	-.127	-.390**	.150	-.323**	.019	-.329**	.284**	.646**	.888**	.725**						
8c	CI: Career Opportunities	-.149	-.304**	.092	-.220*	.053	-.164	.362**	.560**	.927**	.735**	.796**					
8d	CI: Contractual Employment Conditions	-.059	-.215*	-.037	-.167	.107	-.075	.210*	.580**	.904**	.791**	.677**	.808**				
9	Avoidance coping	-.245**	-.263**	.235**	-.278**	.163	-.298**	.192*	.503**	.516**	.432**	.442**	.520**	.468**			
10	Approach coping	.149	.065	-.056	.078	.156	.078	.145	-.099	-.107	-.098	-.225*	-.040	-.020	.259**		
11	Psychological well-being	-.272	.311*	-.002	.351*	.059	.173	-.036	-.486**	-.455**	-.492**	-.356*	-.369*	-.453**	-.429**	.069	
12	Subjective career success	-.162	.151	.005	.247	.006	.136	.145	-.156	-.244	-.319*	-.210	-.221	-.155	-.317*	.206	.538**

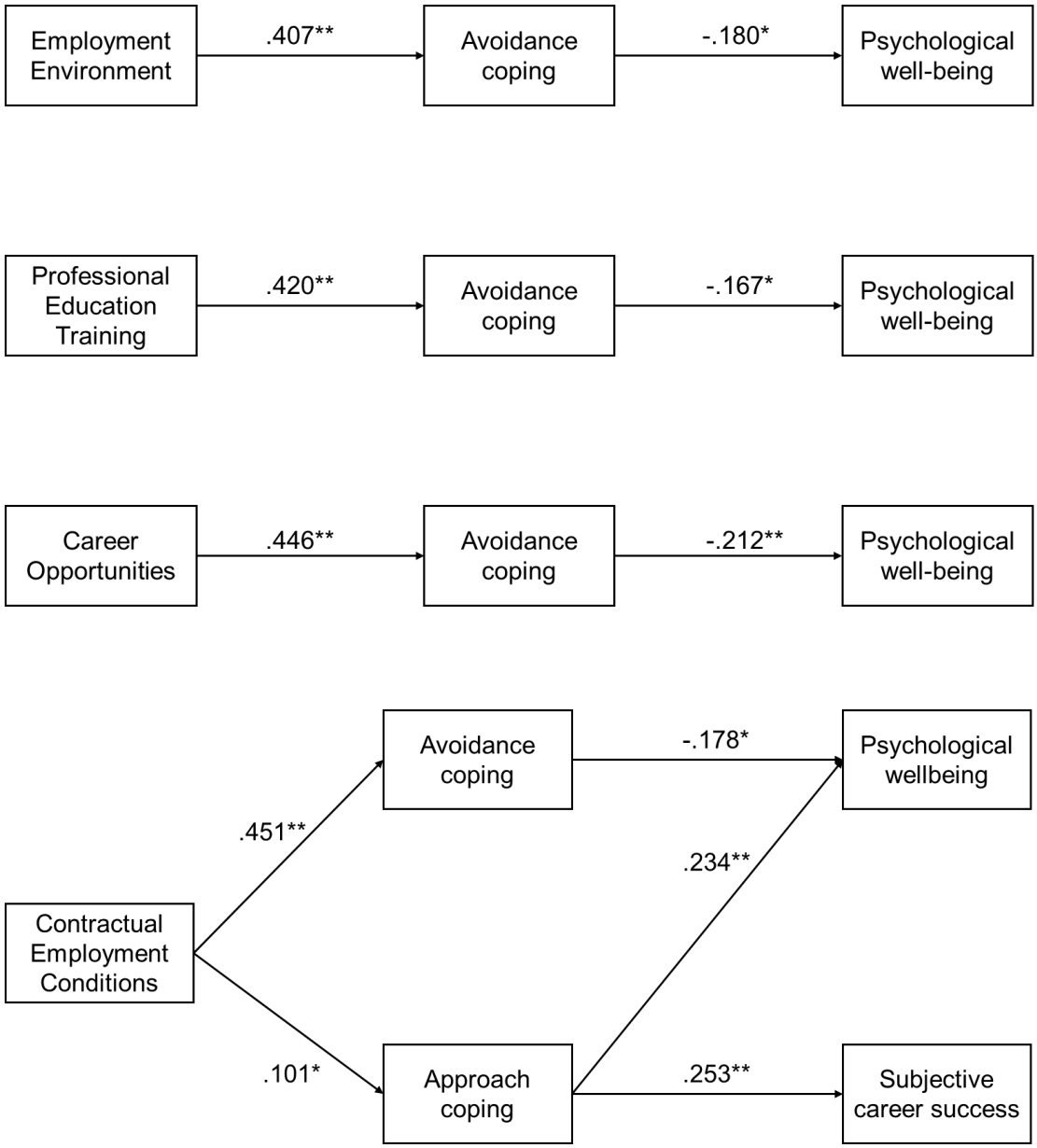
Note. CI = Career Insecurity.

* $p < .05$

** $p < .01$

Figure A

Path model of career insecurity, coping, and outcomes



Note. Standardized path coefficients are shown.

*$p < .05$

**$p < .01$

Table G

Estimates and confidence intervals of total, direct, and indirect effects for psychological wellbeing and subjective career success

Path	CI: Employment Environment			CI: Professional Education Training			CI: Career Opportunities			CI: Contractual Employment Conditions		
	Lower 2.5%	Point estimate	Upper 2.5%	Lower 2.5%	Point estimate	Upper 2.5%	Lower 2.5%	Point estimate	Upper 2.5%	Lower 2.5%	Point estimate	Upper 2.5%
Total effects from career insecurity to psychological wellbeing	-.275	-.197	-.115	-.243	-.176	-.107	-.229	-.149	-.074	-.255	-.180	-.104
Total indirect effects	-.070	-.035	.000	-.085	-.046	-.007	-.089	-.050	-.009	-.070	-.032	.004
Specific indirect effects												
Career insecurity → Avoidance coping → Psychological wellbeing	-.080	-.044	-.008	-.075	-.039	-.004	-.094	-.055	-.014	-.085	-.046	-.008
Career insecurity → Approach coping → Psychological wellbeing	-.003	.009	.027	-.024	-.007	.003	-.008	.005	.021	.002	.014	.033
Direct effect of career uncertainty to psychological wellbeing	-.249	-.162	-.068	-.208	-.130	-.050	-.197	-.099	-.010	-.234	-.148	-.056
Total effects from career insecurity to subjective career success	-.331	-.184	-.032	-.236	-.101	.037	-.237	-.083	.067	-.259	-.113	.033
Total indirect effects	-.071	.003	.078	-.128	-.046	.034	-.110	-.027	.055	-.076	.001	.078
Specific indirect effects												
Career insecurity → Avoidance coping → Subjective career success	-.087	-.013	.057	-.103	-.031	.039	-.117	-.037	.042	-.099	-.025	.049
Career insecurity → Approach coping → Subjective career success	-.006	.016	.051	-.050	-.015	.007	-.016	.009	.041	.003	.026	.063
Direct effect of career insecurity to subjective career success	-.345	-.187	-.021	-.208	-.055	.100	-.226	-.055	.119	-.265	-.114	.046

Note. CI = Career Insecurity.