

Vocational and overall identity: A person-centered approach in Italian university students



Laura Aleni Sestito ^{a,*}, Luigia Simona Sica ^a, Giancarlo Ragozini ^{a,c}, Erik Porfeli ^b, Gina Weisblat ^b, Tiziana Di Palma ^a

^a Department of Humanities, University of Naples "Federico II", Italy

^b Department of Family and Community Medicine, Northeast Ohio Medical University, OH, United States

^c Department of Political Sciences, University of Naples "Federico II", Italy

ARTICLE INFO

Article history:

Received 10 July 2015

Received in revised form 7 October 2015

Accepted 8 October 2015

Available online 13 October 2015

Keywords:

Overall and vocational identity

Italian University students

Cluster analysis

VISA validation

ABSTRACT

Establishing a vocational and overall identity involve defining life altering plans and associated commitments to pursue and achieve them and are, therefore, among the most central aspects of the developmental tasks of late adolescents and emerging adults. In the Italian context, young adults' opportunity to develop coherent and fulfilling future plans are strongly threatened by the current distressed economic climate in Italy. Assuming these features of the Italian context can produce specific identity patterns, the present study aimed to contribute to the understanding of overall and vocational identity processes in Italian emerging adults and to explore the relationship between the two domains of identity using a person-centered approach. The study is composed of two parts. The first study assessed the psychometric properties of the Italian version of the Vocational Identity Status Assessment (VISA) in a sample of university students from Italy ($N = 560$). The second study included a cluster analytic approach in order to explore the configuration of both vocational and overall identity domains. The findings suggest that the Italian version of the VISA is a promising tool for assessing vocational identity dimensions in the Italian context. Furthermore, unlike the previous literature, we found different patterns of vocational and overall identity in Italian university students. The findings suggest that the current socio-economic Italian situation may be hindering students' progress toward achieving a vocational identity, especially for freshmen.

© 2015 Elsevier Inc. All rights reserved.

1. Introduction

Establishing vocational and overall identities are among the most central developmental tasks of the late adolescent and emerging adulthood periods (Porfeli, Lee, Vondracek, & Weigold, 2011). Vocational identity is conceived as a domain-specific aspect of overall identity, providing young people with a framework to regulate the pursuit of their academic and career objectives (Hirschi, 2012). People exhibiting an advanced identity status show greater career planning and decidedness (Wallace-Broschious, Serafica, & Osipio, 1994) and more advanced identity (Kroger, 1988; Meeus, 1993; Skorikov & Vondracek, 1998). Numerous studies also confirm the positive association between vocational and overall identity (Nauta & Kahn, 2007; Savickas, 1985; Skorikov & Vondracek, 1998) founding that engaging in occupational exploration and making occupational commitments promote identity development from childhood through adulthood (Flum & Blustein, 2006; Kroger, 2007). Work experience was found to be the primary influence on overall identity development for college students, workers and unemployed (Danielsen, Lorem, & Kroger, 2000). Vocational identity is,

* Corresponding author at: Department of Humanities, University of Naples "Federico II", Postbox: Via Porta di Massa, 1, 80133 Naples, Italy.
E-mail address: sestito@unina.it (L. Aleni Sestito).

therefore, believed to be a defining feature in adolescent and young adult life, a leading aspect of global identity development, and fostered by work experience (Schwartz, 2007; Skorikov & Vondracek, 2011).

Adolescents tend to leave behind a vague sense of self as a “worker”, inspired by childhood images of stereotypical or idealized work activities, and move toward an adult identity that is more concrete, realistic and alive in the real world of work, following a developmental model of vocational identity that is potentiated by developing a sense of industry and positive view of the world of work (Porfeli, Lee, & Weigold, 2012) and generally proceeds establishing a long-term intimate relationship with a romantic partner and family formation.

Despite the general regularity of vocational identity development exhibited on the population level across the late adolescent and emerging adulthood period, appreciable variability is observed in the pathways and timing of vocational identity progress from person to person and across different cultural and socio-economic contexts. Career progress as a series of jobs and titles becomes re-defined as an ever-expanding repertoire of skills and a multiplying professional network. This shift brings new opportunities and challenges associated with lifespan identity development.

In particular, emerging adults in the modern era may experience a prolonged period of moratorium as they explore major life roles in the absence of making solid commitments (Crocetti & Palmonari, 2011). This experience may be particularly pronounced for college students who tend to delay these transitions more so than their age mates who do not pursue higher education (Crocetti Rabaglietti, & Sica, 2012). Moreover, college students may demonstrate a greater diversity of identity statuses revolving around identity diffusion, disengagement and indifference (Sica, Aleni Sestito, & Ragozini, 2014) and these statuses may be adaptive within political-economic conditions, like those in Italy, limiting job opportunities and viable career pathways.

Thus, the impact of the globalization and global economic changes on the nature of work and career and how that may relate to changes in vocational identity processes and structure (Ashkenas, Ulrich, Jick, & Kerr, 1995) serves as a backdrop for the present study. Opportunities in the modern labor market include a proliferation of new careers and contracts, and the flexibility to redefine one's self and career in a way that is becoming increasingly accepted and, in some cases, normative and even admired (Arthur & Rousseau, 1996). The global economy presents challenges to identity and career in terms of job security and predictability. Increasingly, employers are backing away from the role of the caregiver, developing employees for the long term and focusing their employee development and compensation plans on the basis of performance in the here and now (Guichard, Pouyau, de Calan, & Dumora, 2012).

The contemporary post-industrial society has become gradually more complex, more “fluid” and less stable (Giddens, 1991). The coexistence of different cultural patterns, lifestyles and social norms, leading to the modernization and globalization processes (Larson, 2011), seem to signal to young people the need for multiple and flexible developmental trajectories requiring continuous monitoring of and adaptations to specific career and work skills and the need for their continuous development across the lifespan (Côté, 1997, Côté, 2000).

1.1. The Italian context

In this study, we recruited university students given that it is widely known that they were facing a particularly difficult Italian job market (Istat, 2014). Indeed, the majority of Italian young adults, even after concluding their prolonged training period, experience additional periods of employment instability, insecurity and uncertainty (Berton, Richiardi, & Sacchi, 2009; Boeri & Galasso, 2007; Iezzi & Mastrobuoni, 2010). The Italian context is conceived as a prototype of Southern European countries in which young adults' opportunities to develop coherent and fulfilling future career and overall life plans are strongly threatened by the current socio-economic distress in Italy (Leccardi, 2006). Main problems that affect Southern European youth include high rates of unemployment (ranging approximately from 35% to 55% in the last quarter of 2012; Eurostat, 2014); a large number of youth being “Not in Education, Employment, or Training” (NEET; Bynner, 2012; Bynner & Parsons, 2002; Whittaker, 2008); widespread job insecurity; and a deep-rooted crisis of confidence in educational institutions and employers.

Many cross-cultural studies have focused on the peculiar trajectories of the transition to adulthood of Italian young people as compared to those in other countries. In particular, some studies with university students found that the delayed transition to adult life has a particular impact on global (Aleni Sestito, Sica, & Ragozini, 2011; Crocetti, Luyckx, Scrignaro, & Sica, 2011; Crocetti, Scrignaro, Sica, & Magrin, 2012) and vocational identity (Aleni Sestito, Sica, & Nasti, 2013). Coined the Italian Delay Syndrome (Livi Bacci, 2008), the delayed transition has led to a pattern of maladaptive outcomes (Sica et al., 2014) and delayed normative identity development; this also may increase identity instability and could be a determining factor in postponing the achievement of important vocational and personal commitments to multiple life domains in emerging adulthood (Crocetti, Rabaglietti, Sica, 2012). Thus, in this study we assume Italy as Prototype of Southern Europe countries, in which the general processes of identity development and the transition to adulthood may lag behind and manifest differently than they do in other countries. In doing so, we adopt the identity status paradigm (Marcia, 1966; Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993) and assess the extent to which contemporary vocational identity status (Porfeli et al., 2011) and personal identity (Luyckx et al., 2008) measures are (a) associated with each other, (b) how identity status models reflect the identities of Italian young adults, and (c) how the resulting overall and vocational identity statuses are associated with each other.

1.2. Vocational and overall identity statuses

The cluster analytic approach is based on the identity status paradigm (Marcia, 1966; Marcia et al., 1993). By combining Erikson's identity processes of *commitment* and *exploration*, Marcia identified four identity statuses: *achievement* (commitment

following exploration); *foreclosure* (commitment with little or no prior exploration); *moratorium* (ongoing exploration with no current commitment); and *diffusion* (lack of commitment with no or limited exploration). International research focusing on the five dimensions overall identity statuses proposed by Luyckx et al. (2008) found through the use of cluster analysis six identity statuses in Belgian, North-American (Meeus, van de Schoot, Keijsers, & Branje, 2011), and Italian (Crocetti et al., 2011) youth. Three of these statuses resembled Marcia's original statuses: *achievement* (high on commitment making, identification with commitment, exploration in depth and exploration in breadth, and low on ruminative exploration); *foreclosure* (high on both commitment dimensions and low on the three exploration factors); *moratorium* (low on both commitment dimensions and high on the three exploration factors). Furthermore, two forms of diffusion were found: adolescents in the *carefree diffusion* status reported low scores on all the five identity processes, whereas adolescents in the *diffused diffusion status* reported similar scores except for a high score on ruminative exploration. Finally, an *undifferentiated* status with moderate scores on all the identity dimensions was identified.

With regard to vocational identity, Porfeli et al. (2011) recently proposed a model of vocational identity statuses and identified six statuses supporting the previous established achievement, moratorium, foreclosed, and diffused statuses along with two additional statuses termed *searching moratorium* (individuals seeking a new commitment suitable to their aspirations, and thus are characterized by high levels of commitment, in-depth exploration, and reconsideration of commitment; Crocetti, Rubini, & Meeus, 2008) and *undifferentiated* (individuals who reflect moderate levels of all six constructs and are conceptually are situated in the center of a two dimensional space defined by commitment and exploration).

1.3. The relationship between overall and vocational identity

“The identity status literature has been somewhat ambivalent regarding the extent to which identity is best operationalized as a global construct or as operating separately within each domain or set of domains” (Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013, p. 100). Although the literature emphasizes that identity develops and operates differently in different life domains (Goossens, 2001), Erikson assigned a leading role to vocational identity development in the overall process of identity formation. Prior research affirms this proposition, Skorikov and Vondracek (1998), confirming earlier results that found that vocational identity was positively related to overall identity (Kroger, 1988), reported that progression toward vocational identity achievement did not depend on prior advancement toward overall identity achievement. In fact, vocational identity development appeared to lead identity development in other domains. In this sense, the developmental progression in identity development proposed by Grotevant (1987) was confirmed for the vocational domain. Vocational identity is, therefore, believed to be a defining feature in adolescent and young adult life and appears to be a central element of identity (Skorikov & Vondracek, 2011) and the major component of one's overall sense of identity (Kroger, 2007; Skorikov & Vondracek, 2007).

2. Aims of the current study

The Italian Delay Syndrome appears to be attributable to both the challenges of contemporary Western society on the one hand and the unique features of Italy on the other. The syndrome appears to be particularly acute and prevalent in Italy and we assert that it may be made manifest in the overall and vocational identity processes. The present study used a person-centered approach to study overall and vocational identity processes in Italian university students and to explore the interaction between the two identity domains. In a context such as Italy, highly characterized by youth underemployment and the limited inclusion of young people into the labor market, we explored how vocational and overall identity are manifested and related to one another during the university years. Identity is a psycho-social construct; hence, we expected Italian students to manifest overall and vocational identities reflective of their psychological development within the broader social context of work in Italy. This life phase is known to be a powerful period and context for career and life decision-making processes and the context is known to have a profound effect on both. We also tested if the patterns of overall and vocational identity domains are associated with and differentiated from each other.

This study is guided by two aims. The first aim is to establish and validate the Italian version of Vocational Identity Status Assessment, originally developed for adolescent and emerging adults in North America (VISA; Porfeli et al., 2011). This involves establishing the structure of the measurement model and relating the resulting constructs to an established measure of overall identity status. The second aim is to employ a person-centered approach to identify the common identity status profiles among Italian university students identified by the Italian language version of the VISA. Finally, we tested the associations between overall and vocation identity processes and statuses.

2.1. Aim one

In order to achieve the first aim, we examined the psychometric proprieties of the Italian version of the Vocational Identity Status Assessment (VISA; Porfeli et al., 2011). The overall purpose was to validate the VISA for use in a different cultural and linguistic context (Italy) than the one in which it was originally developed (the USA). To that end, we have examined reliabilities of the six subscales of the VISA proposed by Porfeli et al. (2011) and, using Confirmatory Factor Analysis (CFA), we have tested the six-factor structure of the VISA by employing item and parcel approaches to confirmatory factor analysis (CFA), as the authors made in their original validation.

Next, we tested the convergent validity of VISA by exploring the correlations between VISA dimensions and the Dimensions of Identity Development Scale (DIDS; Luyckx et al., 2008). The VISA constructs were largely patterned after the constructs employed in the DIDS. We hypothesized that the VISA constructs will demonstrate convergent validity through a pattern of positive correlations with analogous DIDS constructs. We also predicted negative correlations between the VISA flexibility and doubt functions and the DIDS commitment making and identification with commitment constructs because increases in these VISA constructs signal that participants are forestalling the achievement of a vocational identity, which is known to be aligned with delayed global identity status achievement (Skorikov & Vondracek, 1998).

2.2. Aim two

Using a person-centered approach, the second aim was to identify the vocational identity statuses of Italian university students to discern if they are consistent with vocational identity statuses identified with U.S. samples (Porfeli et al., 2011). In this regard our hypothesis was that a different cluster solution could emerge in the present Italian sample as compared to previously studied U.S. samples. The difference is predicted to be rooted in Italian participants exhibiting statuses that involve tenuous commitments to career and possibly near total disengagement in vocational identity processes while concurrently exhibiting advanced global identity statuses. These unique tenuous and disengaged statuses coupled to more advanced overall identity statuses would reflect young adults who have made strong progress in their overall identity, but are not or are weakly devoting themselves to pursuing vocational role because of the impossibility of securing a career in the current labor market. Furthermore, the Italian students are predicted to be differently distributed within the vocational identity statuses in a manner reflecting a lower fraction of students located within the committed vocational identity statuses as a consequence of the difficult Italian labor market as compared with U.S. students. For these reasons, we also predict that a disproportionate fraction of Italian students will be identified as being in uncommitted statuses (moratorium and diffusion vocational identity statuses) compared with those that are in committed statuses. Committing to careers that are unattainable is likely to lead to distress and fruitless efforts; hence Italian students may be more inclined to continue active exploration in the hope that a viable opportunity will be discovered. In sum, vocational identity is a psychosocial construct, with its roots in career exploration, commitment and reconsideration processes. Being psychosocial in nature, vocational identity may be particularly sensitive to the labor context. The extremely distressed economic situation in Italy and specifically for emerging adults who are in the throes of career decision making may influence the distribution and nature of vocational identity statuses in Italy.

Furthermore this study aimed to contribute to the understanding of the relationship between the overall and vocational identity in Italian students exploring both the overall and vocational identity statuses (Skorikov & Vondracek, 2011). Our findings from the first part of this study demonstrating that the overall identity dimensions, as measured by DIDS, have significant correlations with the corresponding dimensions of the vocational identity (VISA) even if, in some cases, in the opposite direction. On the basis of these findings, as well as the considerations outlined earlier about the difficult Italian youth labor market, we expect to find that students exhibiting more advanced global identity statuses may not demonstrate more advanced vocational identity statuses because of the deep uncertainty in the Italian labor. Maintaining an uncommitted vocational identity status may be adaptive in this difficult labor market.

We specifically focus our efforts on taking a deep dive into the non-committed vocational statuses and determine whether certain students are remaining uncommitted in the vocational identity domain for adaptive reasons.

We tested if:

- a) the identity vocational statuses model established by Porfeli et al. (2011) with a US sample is reflected in Italian students;
- b) different vocational identity statuses configuration emerge for Italian students reflective of the Italian Delay Syndrome and specifically an adaptive diffusion vocational identity status;
- c) a lower fraction of Italian students located in the committed vocational identity statuses relative to the present sample and relative to US students in previous research;
- d) the relationship between global and vocational identity statuses of Italian students reflected an inverse pattern driven by the difficult labor market in Italy.

3. Method

3.1. Participants

The participants in our study consisted of 560 Italian emerging adults, 168 males and 390 females and aged 18 to 26 years ($M_{\text{age}} = 21.65$ years, $SD = 2.28$). They were all students attending university undergraduate courses in a large Italian city (Naples) and enrolled in various majors to include: political science (15%), engineering (5%) Law (10%), Economics (5%), Psychology (50%), and various other disciplines (25%). Participation in the study was voluntary and anonymity was guaranteed.

3.2. Procedure

The English version of the VISA (Porfeli et al., 2011) was translated into Italian following the guidelines of the International Test Commission (Hambleton, 2005), using the back version procedure (Brislin, 1980) and it was administered to 115 subjects

in a pre-test. The preliminary findings suggested that the questionnaire was generally understood by and accessible to the students. The content of items did not require further modifications. Only a number of minor linguistic adjustments were needed to enhance item comprehension. Thus, the linguistic modifications led to a reformulation of the Italian version of the scale administered during the validation study. Before the study, permission to administer questionnaires was obtained from the Deans of the university faculties. Students were provided with written information about the research and asked if they wished to participate. Approximately 99% of the approached students chose to participate. They completed the study measures as an anonymous self-report questionnaire.

3.3. Measures

3.3.1. Vocational identity

The Italian version of the VISA, contains thirty items, with 10 items for each of the three dimensions of career exploration that are subdivided into 5 items per sub dimension. Example items for the career exploration construct included: “casually learning about careers that are unfamiliar to me in order to find a few to explore further” (in-breadth career exploration) and “learning as much as I can about the particular educational requirements of the career that interests me the most” (in-depth career exploration). Items for the career commitment dimension included “I have known for a long time what career is best for me” (career commitment), and “Becoming a worker in my chosen career will allow me to become the person I dream to be” (identification with career commitment). (e.g.) Finally, items for the career reconsideration dimension included “I need to learn a lot more before I can make a career choice” (career commitment flexibility) and “Thinking about choosing a career makes me feel uneasy” (career self-doubt; e.g. item 1). All VISA subscales employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The VISA was created and employed in previous research (Porfeli, 2009; Porfeli, Lee, & Vondracek, 2010). The items were constructed on the basis of conceptual and empirical work distinguishing in-depth and in-breadth career exploration (Gati & Asher, 2001; Patton & Porfeli, 2007; Porfeli, 2008; Porfeli & Skorikov, 2010) and the two broad forms of commitment, namely commitment making and identification with commitment (Luyckx, Goossens, Soenens, Beyers, & Vansteenkiste, 2005). The VISA was originally developed by Porfeli to include 66 items, reviewed and edited by five experts in identity status research, and piloted on a sample of adolescents. Using these items, the VISA was constructed to consist of four subscales aligned with the exploration and commitment dimensions proposed by Luyckx and colleagues, but exclusively focusing on exploring and committing to work. The original version of the VISA also included one indicator of reconsideration, namely career self-doubt (Porfeli, 2009). The result of the analytic work on the original version led to the newest iteration of the VISA employed here (see Table 2), which includes some revised items across the five subscales and includes an additional subscale of reconsideration termed career flexibility (Porfeli et al., 2010).

3.3.2. Overall identity

The Italian version of the *Dimensions of Identity Development Scale* (DIDS; Crocetti et al., 2011; Luyckx et al., 2008) was used to test the convergent validity of the Italian version VISA and to explore the second aim of the study. The DIDS include 25 items (5 items for each dimension) with a response scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). Sample items read: “I have decided on the direction I want to follow in my life” (commitment making), “I sense that the direction I want to take in my life will really suit me” (identification with commitment), “I regularly think over a number of different plans for the future” (exploration in breadth), “I regularly talk with other people about the plans for the future I have made for myself” (exploration in depth), and “It is hard for me to stop thinking about the direction I want to follow in my life” (ruminative exploration). Cronbach’s alphas were .90, .85, .71, .70, and .79, respectively.

3.4. Data analyses

3.4.1. Aim one

With the aim to translate the VISA from English to Italian while maintaining its measurement validity, we first conducted an item analysis through simple descriptive statistics and exploratory analysis. In order to check the item discrimination power, indices relating to the spread and shape of the distributions, (e.g. standard deviation, skewness and kurtosis) were calculated. In order to verify the discriminate power of each item, distribution indices were calculated. The psychometric properties of the scale, especially the internal consistency and validity of the subscales, were analyzed using SPSS software. Cronbach’s alpha was used to assess internal consistency. To compute the structural validity of the VISA measurement model, a confirmatory factor analysis was conducted using LISREL software (Joresborg & Sorbom, 2002). We employed item and parcel approaches to confirmatory factor analysis (CFA). Several indices were used to evaluate model fit (Kline, 2006): the Standardized Root Mean Square Residual (SRMR) (Byrne, 2009); the Goodness of Fit Index (GFI) (Hu & Bentler, 1999); and the Root Mean Square Error of Approximation (RMSEA) (Browne & Cudeck, 1993). With the structure of the VISA replicated, the convergent validity of the VISA was assessed with commensurate global identity process constructs. In order to explore the convergent validity of VISA, bivariate correlations between VISA dimensions and global identity processes (i.e., DIDS: commitment making, identification with commitment, exploration in breadth, exploration in depth, ruminative exploration) were computed.

3.4.2. Aim two

To identify the appropriate number of statuses resolved by the VISA, (research question a) hierarchical cluster analyses employing Ward's method and Euclidean distances was performed, using as initial cluster centers those derived in the original study conducted by Porfeli et al. (2011). This cluster solution was obtained through a two-step procedure (Gore, 2000), which is becoming customary in identity dimensions classification research (Crocetti, Rubini, Luyckx, & Meeus, 2008; Crocetti et al., 2011). In order to explore the relationship between overall and vocational identity statuses, first we identified the appropriate number of statuses resolved by the DIDS. The cluster analysis on the overall identity dimensions was conducted using a two-step procedure (Gore, 2000). According to Crocetti et al. (2011) four- to six-cluster solutions were evaluated in terms of substantive interpretability, parsimony, and explanatory power (i.e., the cluster solution had to explain approximately 50% of the variance in each of the dimensions). In the first step, a hierarchical cluster analysis was carried out using Ward's method based on squared Euclidian distances. In the second step, these initial cluster centers were used as non-random starting points in iterative k-means clustering. We removed two univariate outliers.

In order to better understand the relationship between the overall and vocational identity statuses one, we employed chi-square analysis via a simple contingency table. We employed standardized residuals within the contingency table to discern if and to what extent the joint distribution of the VISA overall identity statuses deviated from null expectations. Finally, we tested the capacity of the VISA subscales to predict overall identity statuses and for the DIDs subscales to predict VISA statuses Discriminant Function Analysis (DFA). In the first DFA, overall identity subscales are used to predict the vocational statuses, while in the second DFA the vocational identity dimensions are used as predictors of the overall identity status. In both DFAs the rate of correct classification was around 40% showing that the two measures are related, but distinct from each other.

4. Results

4.1. Aim one: the Italian validation of VISA

4.1.1. Exploratory analysis: descriptive statistics and internal consistency of the scales

The results from the exploratory analysis of the frequency score distributions and the observation of central tendency and dispersion values demonstrate that the average scores range from 2.33 to 2.93; the standard deviations range from .36 to .65, showing a low variability of each item (see Table 1). The values of skewness and kurtosis ranged between 0 and 1 for all the items, so items with scarce discriminative power have not been identified.

The subscales demonstrated substantial internal consistency and an appropriate contribution of each item to the overall reliability. Cronbach indices were found to be $\alpha = .82$ for Commitment Making, $\alpha = .84$ for Identification with Commitment, $\alpha = .79$ for Flexibility, $\alpha = .82$ for Self-Doubt, $\alpha = .81$ for Exploration in Breadth, $\alpha = .75$ for Exploration in Depth.

4.1.2. Confirmatory factor analysis

Confirmatory factor analysis (CFA) was performed on the 30 items. Fit indices for this model are in Table 1. As a result, Fig. 1 displays the final six-factor standardized solution for the VISA in the Italian sample.

All the six sub dimensions were found to contribute significantly to the three higher-order constructs of the VISA. The six sub dimensions were found to be correlated (Table 2) as in the original version of VISA.

4.1.3. Convergent validity of VISA

Findings (see Table 3) revealed that VISA dimensions were positively and negatively correlated with DIDS overall identity in mainly expected directions. Results showed, however, negative correlations between both the exploration constructs of VISA and both commitment constructs of DIDS and conversely positive correlations between both the commitment constructs of VISA and both exploration constructs of DIDS.

Table 1

Model fit indices.

Fit indices	
Root mean square error of approximation (RMSEA)	0.05
Normed fit index (NFI)	0.99
Non-normed fit index (NNFI)	0.98
Comparative fit index (CFI)	0.99
Incremental fit index (IFI)	0.99
Root mean square residual (RMR)	0.41
Standardized RMR	0.03
Goodness of fit index (GFI)	0.98
Adjusted goodness of fit index (AGF)	0.95

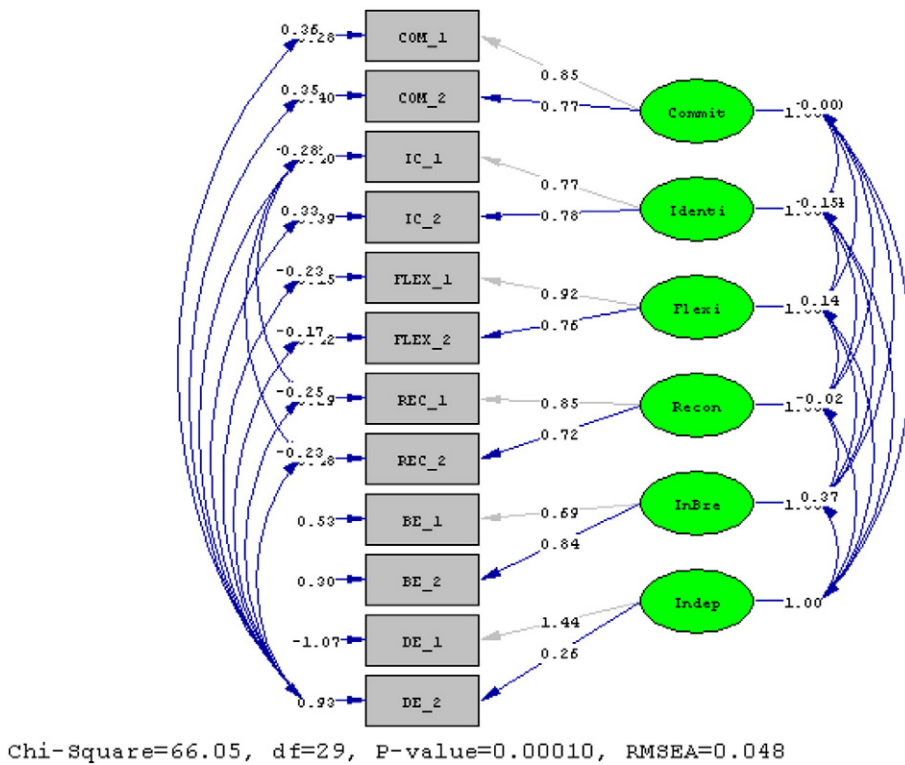


Fig. 1. Standardized solution of the six-factor model of the VISA.

4.2. Aim two: overall and vocation identity processes and statuses

4.2.1. The cluster model: identifying identity vocational statuses

The six-cluster solution obtained by Porfeli et al. (2011) was found in the Italian sample. In the four- and five-cluster solutions, the percentage of explained variance was inadequate for several identity dimensions. The six-cluster solution offered substantive interpretability, parsimony, and explanatory power. Fig. 2 presents the final six-cluster solution. While the number of vocational identity statuses is consistent between Italian and U.S. samples, the identity status profiles of Italian students are different. The vocational identity *undifferentiated* cluster (CI 1; 24,8%) was characterized by moderate scores on all identity dimensions; the vocational identity *searching moratorium* cluster (CI 2; 19,8%) by middle-high scores on the two commitment dimensions and high scores on flexibility and self-doubt, middle on in depth exploration and middle-low on exploration in breadth; the vocational identity *moratorium* cluster (CI 3; 11,4%) by low scores on both the commitment dimensions, high scores on exploration in depth and low scores on exploration in breadth and flexibility and middle scores on self-doubt; the *doubtful foreclosed* vocational identity status (CI 4; 11,2%) by high scores on both the commitment dimensions and low scores on both the exploration dimensions and on flexibility and middle-high scores on self-doubt; the vocational identity *diffused* cluster (CI 5; 10,7%) was characterized by low scores on both the commitment dimensions and moderate scores on in depth exploration, high scores on in breadth exploration, middle-low scores on flexibility and low scores on self-doubt; the vocational identity *foreclosed* cluster (CI 6; 22%) was characterized by moderate scores on the both commitment dimensions, low scores on in depth exploration and flexibility dimensions and middle on tin breadth exploration and in self-doubt. Of particular importance, the optimal cluster solution did not resolve a vocational identity *achieved* status.

Table 2
Bivariate correlations of vocational identity dimensions.

		VISA constructs					
		1.Commitment making	2.Identification with commitment	3.Flexibility	4.Self-doubt	5.Exploration in breadth	6.Exploration in depth
VISA constructs	1.	1					
	2.	.55**	1				
	3.	-.23**	-.11**	1			
	4.	.26**	.35**	.29**	1		
	5.	-.56**	-.54**	.25**	-.17**	1	
	6.	-.53**	-.31**	.39**	.01	.46**	1**

** p < 0.01.

Table 3
Bivariate correlations of Vocational Identity with Overall Identity dimensions (DIDS).

		VISA constructs					
		Commitment making	Identification with commitment	Flexibility	Self-doubt	Exploration in breadth	Exploration in depth
DIDS constructs	Commitment making	.59**	.49**	-.20**	.24**	-.55**	-.46**
	Identification with commitment	.62**	.54**	-.13**	.26**	-.62**	-.44**
	Exploration in breadth	.21**	.22**	.05	.25**	-.14**	-.07
	Exploration in depth	.22**	.27**	.08*	.37**	-.19**	-.07
	Ruminative exploration	-.41**	-.26**	-.33**	-.02	.51**	.45**

* p < 0.5.
** p < 0.01.

4.2.2. The relationship between overall and vocational identity statuses

A total of 6 clusters were retained. This cluster solution explained between 46% and 61% of the variance in the overall identity dimensions. In the four- and five-cluster solutions, the percentage explained variance was less than adequate for several identity dimensions.

Fig. 3 presents the final six-cluster solution. The global identity *searching moratorium* cluster (CI 1; 19,3%) was characterized by high scores on all exploration dimensions and low scores on commitments; the global identity *diffused diffusion* cluster (CI 2; 4,6%) by very low scores on all dimensions except for high score on ruminative exploration; the global identity *undifferentiated* cluster (CI 3; 22,3%) by moderate scores on all identity dimensions; the global identity *diffusion* cluster (CI 4; 18%) by low scores on both the commitment dimensions, middle on in depth and in breadth exploration dimensions and high scores on ruminative exploration; the global identity *achievement* cluster (CI 5; 26,6%) was characterized by high scores on all dimensions except for low score on ruminative exploration; the global identity *foreclosure* cluster (CI 6; 9,1%) by middle-high scores on both the commitment dimensions and low scores on the exploration dimensions.

To examine the relationships among vocational and global identity statuses, we conducted a Chi square test. Results showed significant associations among vocational and global identity statuses classifications, $\chi^2 (25, N = 560) = 329.6, p < .001$, Cramér's $V = .34, p < .001$. Then, we compared the distribution of students across the vocational and overall identity statuses, considering participants in every vocational and overall identity status and generalizing to committed (achieved and foreclosed), uncommitted (moratorium and diffused), in-progress (searching moratorium), and undifferentiated cluster categories. The results in Table 4 show that the participants tended to be assigned to committed and in-progress vocational identity statuses when they were also assigned to the committed overall identity statuses. However, it should be stressed that the only vocational committed statuses are doubtful foreclosed and foreclosed. Furthermore, the cross-tabulation highlights that the students in the searching moratorium vocational status were mainly assigned to the overall achieved status. Participants in the uncommitted vocational statuses were mainly assigned to uncommitted and partially in-progress global statuses. Those in the diffused vocational status tended to be assigned to uncommitted overall identity statuses. Participants in the vocational undifferentiated status were typically assigned to undifferentiated and searching moratorium statuses. These results suggest that Italian young adults are progressing in their overall identity statuses in advance of their vocational identity statuses.

In order to better understand the relationship between the overall and vocational identity status measures, we performed two DFAs with (a) overall identity dimensions predicting vocational identity statuses and (b) vocational identity dimensions predicting overall identity statuses. Statistically significant and strong correlations were observed between the first two discriminant functions for both analyses, suggesting that the DIDs subscales are meaningful predictors of VISA statuses (see Table 5) and VISA subscales are meaningful predictors of DIDs statuses (see Table 6).

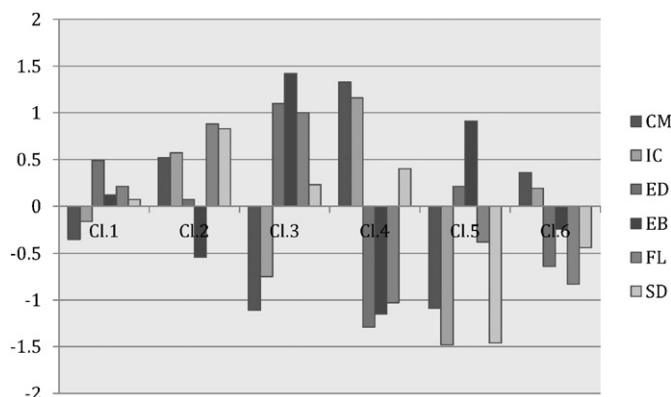


Fig. 2. Patterns of career commitment, exploration, and reconsideration for the six VISA identity cluster solution.

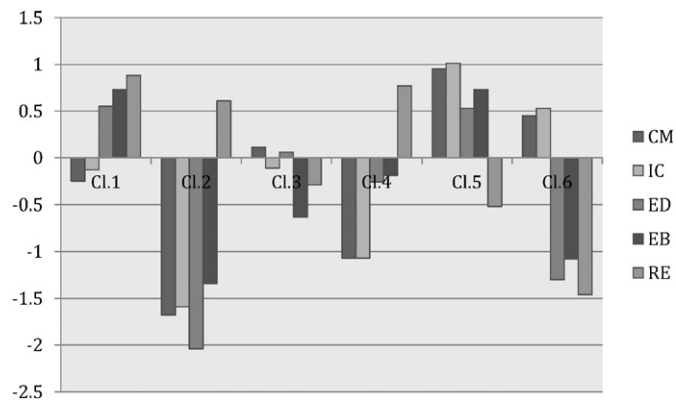


Fig. 3. Patterns of commitment, identification with commitment, exploration in depth, exploration in breadth, and ruminative exploration, for the six DIDS identity cluster solution.

For the DIDs subscales predicting VISA statuses, the percentage of correct classification is around 40%, with higher percentages within the Doubtful Foreclosed (58.7%), the Moratorium (56.3%) and Diffused (50%) (Table 7). This correct classification rate represents an appreciable improvement over the base rate of 16.67%, considering the random assignment.

For the VISA subscales predicting the DIDs statuses, the percentage of corrected classification is around 40%, with higher percentages within the diffused diffusion (73.1%), the achieved (50%), the foreclosed (47.1%) and the searching moratorium (46.3%) (Table 8). This correct classification rate represents an appreciable improvement over the base rate of 16.67%, considering the random assignment.

5. Discussion

In the present study, we examined whether Italian university students could be appropriately classified with the VISA and the six vocational identity dimensions identified with US samples (Porfeli et al., 2011). In doing this, we adopted the established procedures developed for the VISA including the measurement model of the VISA (aim 1) and the identification of an appropriate number of statuses resolved by the VISA (aim 2). The results confirmed that the VISA, with some slight modifications to the measurement model, is a useful instrument for assessing vocational identity statuses with Italian university students. In a broader way, the results also confirm the union of the Luyckx (Luyckx et al., 2005) and Meeus and Crocetti identity status models (Crocetti, Rubini, Luyckx et al., 2008; Crocetti, Rubini, & Meeus, 2008) into a combined six statuses model.

Table 4

Cross-tabulation VISA/DIDS clusters. Observed values indicated in bold are significantly different from expected values (i.e., standardized residuals higher than |2|): (+) indicates that the observed value is higher than the expected value; (–) indicates that the observed value is lower than the expected value.

		Vocational identity statuses						Total	
		Committed (33.2%)		In progress (19.8%)		Uncommitted (22.1%)		Undifferentiated (24.8%)	
		Doubtful foreclosed	Foreclosed	Searching moratorium	Moratorium	Diffused	Undifferentiated		
Overall identity statuses	Committed (35.7%)	Achieved	36 24.2%	39 26.2%	54 36.2%	1 0.7%	5 3.4%	14 9.4%	149
			4.7 (+)	1.1	4.5 (+)	3.9 (–)	2.7 (–)	3.8 (–)	
	Foreclosed		16 31.4%	18 35.3%	3 5.9%	2 3.9%	4 7.8%	8 15.7%	51
			4.3 (+)	2	2.2 (–)	1.6	0.6	1.3	
	In progress (19.3%)	Searching moratorium	4 3.7%	18 16.7%	27 25%	18 16.17%	2 1.9%	39 36.1%	108
			2.3	1.2	1.2	1.6	2.8 (–)	2.4 (+)	
	Uncommitted (22.7%)	Diffused	0 0%	8 7.9%	4 4%	33 32.7%	24 23.8%	32 31.7%	101
			3.4 (–)	3 (–)	3.6 (–)	6.3 (+)	4 (+)	1.4	
	Diffused diffusion		0 0%	1 3.8%	0 0%	6 23.1%	16 61.5%	3 11.5%	26
			1.7	2.0	2.3 (–)	1.8	7.9 (+)	1.4	
Undifferentiated (22.3%)	Undifferentiated	7 5.6%	39 31.2%	23 18.4%	4 3.2%	9 7.2%	43 34.4%	125	
		1.9	2.2 (+)	0.4	2.7 (–)	1.2	2.1 (+)		
Total		63	123	111	64	60	139	560	

Table 5

Correlations between discriminant functions and overall identity dimensions (DIDS), first two functions.

		Discriminant functions	
		1	2
Overall identity dimensions	Commitment making	.785*	-.057
	Identification with commitment	.875*	.130
	Exploration in breadth	.184	.420
	Exploration in depth	.297	.651*
	Ruminative exploration	-.527	.796*

* $p < 0.5$.

Moreover the findings indicated that the Italian university students are distributed across six identity clusters in a manner akin to prior research employing a U.S. sample (Porfeli et al., 2011); however, the Italian vocational cluster solution did not include an *Achieved* status and included a *Doubtful Foreclosed* status reflecting elevated scores on both the commitment scales, moderately high scores on self-doubt, and low scores on both forms of exploration and commitment flexibility. Even if our assumption (lower fractions of Italian students located in the committed vocational identity statuses compared with the US sample) seems not to be confirmed, it should be stressed that Italian students reflecting vocational commitments were actually classified as *foreclosed* (*foreclosed doubtful and foreclosed*) and no one as *achieved*.

Italian students, in contrast to our assumption, most frequently were assigned to vocational committed (*foreclosed and doubtful foreclosed*) status relative to those in uncommitted (*diffused and moratorium*) statuses. A large fraction of the participants were also classified in the *searching moratorium* and *undifferentiated* statuses perhaps because they continue to wrestle with establishing a sense of self at work in a socio-economic context that has very limited work opportunities. Within a university system in which all the students in this study had chosen a college major, these results suggest that only a fraction of these had committed to a career. This discrepancy between academic and career commitments speaks to the increasing lack of confidence that Italian young adults have in an educational system that presently leads to very limited work opportunities. This discrepancy also is consistent with findings from longitudinal research in Italy demonstrating that Italian university students, in narrating their life story about their university choices, demonstrate a tendency to select a college major more on the basis of intellectual curiosity and interest than in terms of a work plan and career (Aleni Sestito & Sica, 2014). Aligned with this previous study, our present findings also suggest that those participants in committed vocational statuses (e.g., foreclosed and doubtful foreclosed) have insufficiently considered a breadth of career options nor had they considered deeply career options aligned with their sense of self. All of these findings support the assertion that Italian young adults are coping with a very difficult labor market by either (a) committing to careers with moderate to little exploration and appreciable flexibility and doubt or (b) they are uncommitted to careers and remaining in a career exploration and flexibility pattern. These vocational patterns may be contributing to students choosing an academic pathway well before and possibly in isolation from or even in the absence of career plans (Cecchi & Ballarino, 2006).

In an effort to further discern the identity statuses of Italian young adults, we examined the associations between overall and vocational identity constructs and statuses. Comparing overall identity dimensions with the vocational identity dimensions, we found positive and negative associations between all the subscales with most being in the expected directions. Contrary to expectations, however, vocational self-doubt was positively associated with overall commitment and exploration constructs. In other words, students who were making progress toward establishing an achieved overall identity status tended to experience more doubt in their career plans and choices. Perhaps the more advanced global identity status groups had developed a more acute understanding of the very difficult labor market they would face relative to their less advanced peers. These findings underscore the dilemma faced by Italian young adults. Making progress in one's overall identity seems to translate into premature career commitments or commitments coupled to a lot of self-doubt. In either case, Italian emerging adults making progress in their overall identity appear to be facing appreciable vocational challenges and distress in the context of a difficult job market (Sica et al., 2014). The net of these results suggest that Italian young adults may be establishing an overall identity in advance of a vocational identity, which is an inference that deserves further study with longitudinal data.

The associations between overall identity and vocational identity constructs and statuses strongly suggest that they represent separate but related constructs. On the one hand, the effects of vocational identity on overall identity are likely to be particularly strong

Table 6

Correlations between discriminant functions and vocational identity dimensions (VISA) first two functions.

		Discriminant functions	
		1	2
Vocational identity dimensions	Commitment making	.766*	-.017
	Identification with commitment	.623*	.285
	Exploration in breadth	-.772*	.163
	Exploration in depth	-.505	.599*
	Commitment flexibility	-.187	.662*
	Commitment self-doubt	.300	.761*

* $p < 0.5$.

Table 7

Classification for VISA clusters. Actual and predicted values and percentages.

		VISA predicted clusters						Total
		Doubtful	Foreclosed	Searching	Moratorium	Moratorium	Diffused	
VISA actual clusters	Doubtful foreclosed	37 58.7%	7 11.1%	16 25.4%	2 3.2%	0 .0%	1 1.6%	63
	Foreclosed	30 24.4%	28 22.8%	25 20.3%	6 4.9%	10 8.1%	24 19.5%	
Searching moratorium		22 19.8%	15 13.5%	51 45.9%	6 5.4%	3 2.7%	14 12.6%	111
	Moratorium	1 1.6%	2 3.1%	3 4.7%	36 56.3%	13 20.3%	9 14.1%	
Diffused		3 5.0%	3 5.0%	3 5.0%	16 26.7%	30 50.0%	5 8.3%	60
	Undifferentiated	9 6.5%	27 19.4%	20 14.4%	23 16.5%	19 13.7%	21 29.5%	

during the transition from school to work (Danielsen et al., 2000), but on the other hand, identity development is often marked by asynchrony and relatively low congruence across different domains (Goossens, 2001; Meeus, ledema, Helsen, & Vollebergh, 1999). These findings affirmed by the literature (Porfeli et al., 2011; Savickas, 1985; Skorikov & Vondracek, 1998, 2011) support the need for further investigations exploring if and how overall and vocational identity contribute to each other over time as people develop and as economic contexts vary in academic and employment opportunities.

Like our examination of the associations between the identity constructs, the findings also show elements of convergence and divergence between the overall and vocational identity domains in the Italian economic context and possibly other contexts marked by very limited employment opportunities. First, students were most frequently classified in the overall identity achieved status, but those in the status were also most frequently classified in the two vocational Foreclosed or Searching Moratorium statuses. In other words, many of these seem to have reached a more advanced stage of overall identity development while still remaining prematurely committed and/or doubtful about their career choices. This discrepancy may be driven by avoidance strategies allowing Italian young people to avoid career projects based on personal aspirations because such projects will be difficult if not impossible to achieve in the Italian labor market.

In sum, our results seem to confirm that the identity develops and operates differently in different life domains (Goossens, 2001). With respect to vocational identity, even if it is conceived as a major component of one's overall sense of identity (Kroger, 2007; Skorikov & Vondracek, 2007; Skorikov & Vondracek, 2011), this identity domain appears particularly sensitive to the labor context. Identity is a psycho-social construct, part psychological and part social/contextual. The context of work clearly seems to be contributing to the definition of vocational identity in Italy. Indeed, the extremely distressed economic situation in Italy and specifically for emerging adults who are in the throes of career decision making influences the distribution and nature of vocational identity statuses in Italy. Moreover, our findings about the relationship between overall and vocational identity construct and statuses, suggest also that the academic choice in the Italian context is perceived as being distinct from (but probably related to) a vocational choice. Thus, the delay syndrome and delayed normative identity development (Crocetti, Rabaglietti, & Sica, 2012) ascribed to Italian young people in transition, seems to be a particularly appropriate for vocational identity constructs and processes.

Table 8

Classification for DIDS clusters. Actual and predicted values and percentages.

		DIDS predicted clusters						Total
		Achieved	Foreclosed	Searching moratorium	Diffused	Diffused diffused	Undifferentiated	
DIDS actual clusters	Achieved	75 50.3%	39 26.2%	20 13.4%	1 0.7%	3 2.0%	11 7.4%	149
	Foreclosed	13 25.5%	24 47.1%	5 9.8%	3 5.9%	0 0%	6 11.8%	
Searching moratorium		13 12%	11 10.2%	50 46.3%	16 14.8%	5 4.6%	13 12%	108
	Diffused	0 0%	6 5.9%	17 16.8%	39 38.6%	28 27.7%	11 10.9%	
Diffused diffused		0 0%	0 0%	1 3.8%	5 19.2%	19 73.1%	1 3.8%	26
	Undifferentiated	22 17.6%	28 22.4%	37 29.6%	16 12.8%	3 2.4%	19 15.2%	

5.1. Limitations and suggestions for future researches

The present findings should be considered in light of some limitations. A primary limitation concerns the cross-sectional design that was used, which does not allow investigations of causality or directionality. Longitudinal studies offer the opportunity for a more robust test of the reciprocal impact of vocational identity styles on personal identity and vice versa over time. Furthermore, useful insights can derive from considering the content dimensions of overall and vocational identity well as process dimensions, particularly in the context of narrative and quali-quantitative approach.

6. Conclusions and study implications

Despite these limitations, the current findings have important practical implications. First, the current study provides support for counseling initiatives to help individuals design and redesign their lives (Collin & Guichard, 2010). Specifically, our findings indicate that a number of university students need support to develop their identity (in both global and vocational terms) in an adaptive way, confirming there is a link between identity formation and difficulties in university students in Italy (Aleni Sestito & Sica, 2010; Sica et al., 2014). Indeed, although the overall identity achieved students could be vocational uncommitted (in an adaptive way), the overall and vocational identity uncommitted students are a big part of Italian sample. Furthermore, the results point to the need to specifically target identity formation processes for the prevention of academic difficulties, developmental moratorium and psychological distress. In this sense, our results support the specificity of identity construction and career development initiatives for emerging adults as planned in the international context (Guichard et al., 2012).

Conflict of interest

The authors declare that they have no conflict of interest.

References

- Aleni Sestito, L., & Sica, L. S. (2010). La ridefinizione del sé durante l'emerging adulthood: dimensioni processuali e stili personali [Identity formation in emerging adulthood: Processual dimensions and identity styles]. *Rassegna di Psicologia*, 27(3), 59–82.
- Aleni Sestito, L., & Sica, L. S. (2014). Identity formation of Italian emerging adults living with parents: A narrative study. *Journal of Adolescence*, 37, 1435–1447.
- Aleni Sestito, L., Sica, L. S., & Ragozini, G. (2011). I primi anni dell'università: processi di definizione dell'identità tra confusione e consolidamento (First years of university: identity formation processes between confusion and consolidation). *Giornale Di Psicologia Dello Sviluppo (Journal of Developmental Psychology)*, 99, 20–33.
- Aleni Sestito, L., Sica, L. S., & Nasti, M. (2013). The generation of youth without work: Transitions to adulthood in conditions of precariousness, unemployment and underemployment. *Ricerche di Psicologia*, 3, 411–444.
- Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless careers: A new employment principle for a new organizational era*. Oxford, UK: Oxford University Press.
- Ashkenas, R., Ulrich, D., Jick, T., & Kerr, S. (1995). *The boundaryless organization*. San Francisco: Jossey-Bass Inc.
- Berton, F., Richiardi, M., & Sacchi, S. (2009). *Flex-Insecurity. Perché in Italia la flessibilità diventa precarietà*. Bologna: Il Mulino.
- Boeri, T., & Galasso, V. (2007). *Contro I Giovani*. Milano: Mondadori.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis, & J. W. Berry (Eds.), *Handbook of Cross-Cultural Psychology*, 2 (pp. 389–444). Boston: Allyn and Bacon.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Bynner, J. (2012). Policy reflections guided by longitudinal study, youth training, social exclusion, and more recently neet. *British Journal of Educational Studies*, 60(1), 39–52.
- Bynner, J., & Parsons, S. (2002). Social exclusion and the transition from school to work: The case of young people not in education employment or training. *Journal of Vocational Behavior*, 60, 289–309.
- Byrne, B. M. (2009). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd edition). New York: Routledge, Taylor & Francis Group.
- Checchi, D., & Ballarino, G. (2006). *Scelte individuali e vincoli strutturali. Sistema scolastico e disuguaglianza sociale, [Individual choices and structural constraints. Educational system and social inequality]*. Bologna: Il Mulino.
- Collin, A., & Guichard, J. (2010). Constructing self in career theory and counseling interventions. In P. J. Hartung, & L. M. Subich (Eds.), *Constructing self in work and career* (pp. 89–106). Washington, DC: APA Books.
- Côté, J. E. (1997). An empirical test of the identity capital model. *Journal of Adolescence*, 20, 421–437.
- Côté, J. E. (2000). *Arrested adulthood: The changing nature of maturity and identity*. New York: New York University Press.
- Crocetti, E., Luyckx, K., Scrignarò, M., & Sica, L. S. (2011). Identity formation in Italian emerging adults: A cluster-analytic approach and associations with psychosocial functioning. *The European Journal of Developmental Psychology*, 8, 558–572.
- Crocetti, E., & Palmonari, A. (2011). Le fasi adolescenziali e giovanili nello sviluppo individuale [Adolescence and emerging adulthood as phases of the individual development]. In A. Palmonari (Ed.), *Psicologia dell'adolescenza [Psychology of adolescence]* (pp. 53–66) (3rd ed.). Italy: il Mulino: Bologna.
- Crocetti, E., Rabaglietti, E., & Sica, L. S. (2012a). Personal identity in Italy. In S. J. Schwartz (Ed.), *Identity around the world: A global perspective on personal identity issues and challenges*. Lene A. Jensen and Reed W. Larson (Series Editors), *New Directions in Child and Adolescent Development*, 138, (pp. 87–102).
- Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence*, 31, 207–222.
- Crocetti, E., Rubini, M., Luyckx, K., & Meeus, W. (2008). Identity formation in early and middle adolescents from various ethnic groups: From three dimensions to five statuses. *Journal of Youth and Adolescence*, 37, 983–996.
- Crocetti, E., Scrignarò, M., Sica, L. S., & Magrin, M. E. (2012b). Correlates of identity configurations: Three studies with adolescent and emerging adult cohorts. *Journal of Youth and Adolescence*, 41, 732–748.
- Danielsen, L. M., Lore, A. E., & Kroger, J. (2000). The impact of social context on the identity-formation process of Norwegian late adolescents. *Youth & Society*, 31, 332–362.
- Eurostat (2014). <http://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-HA-14-001>
- Flum, H., & Blustein, D. L. (2006). Reinvigorating the study of vocational exploration: A framework for research. *Journal of Vocational Behavior*, 56, 380–404.
- Gati, I., & Asher, I. (2001). The PIC model for career decision making: Prescreening, in-depth exploration, and choice. F. T. L. Leong, & A. Barak (Eds.). *Contemporary models in vocational psychology* (pp. 7–54). Mahwah, NJ: Erlbaum.

- Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Cambridge: Polity Press.
- Goossens, L. (2001). Global versus domain-specific statuses in identity research: A comparison of two self-report measures. *Journal of Adolescence*, 24, 681–699.
- Gore, P. (2000). Cluster analysis. In H. Tinsley, & S. Brown (Eds.), *Handbook of applied multivariate statistics and mathematical modeling*. New York: Academic Press.
- Grotevant, H. D. (1987). Toward a process model of identity formation. *Journal of Adolescent Research*, 2, 203–222.
- Guichard, J., Pouyaud, J., de Calan, C., & Dumora, B. (2012). Identity construction and career development interventions with emerging adults. *Journal of Vocational Behavior*, 81, 52–58.
- Hambleton, R. K. (2005). Issues, designs and technical guidelines for adapting tests into multiple languages and cultures. In R. K. Hambleton, P. F. Merenda, & C. D. Spielberger (Eds.), *Adapting psychological and educational tests for cross-cultural assessment*. NJ: Lawrence Erlbaum.
- Hirschi, A. (2012). Vocational identity trajectories: Difference in personality and development of well-being. *European Journal of Personality*, 26(2), 12.
- Hu, L., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Iezzi, M., & Mastrobuoni, T. (2010). *Gioventù sprecata. Perché in Italia si fatica a diventare grandi*. Bari: Laterza.
- Istat (2014). <http://www.istat.it/it/files>
- Joreskog, K.G., & Sorbom, D. (2002). Lisrel 8.52. Scientific Software International, Inc. Copyright 1981–2002. Lincolnwood, IL: United States.
- Kline, R. B. (2006). *Principles and practices of structural equation modeling* (2nd ed.). New York: Guilford.
- Kroger, J. (1988). A longitudinal study of ego identity status interview domains. *Journal of Adolescence*, 11(1), 49–64.
- Kroger, J. (2007). *Identity development: Adolescence through adulthood* (2nd ed.). Thousand Oaks, CA: Sage.
- Larson, R. W. (2011). Positive development in a disorderly world. *Journal of Research on Adolescence*, 21, 317–334.
- Leccardi, C. (2006). Redefining the future: Youthful biographical constructions in the 21st century. *New Directions for Child and Adolescent Development*, 113, 37–48. <http://dx.doi.org/10.1002/cd.167>.
- Livi Bacci, M. (2008). *Avanti giovani, alla riscossa!* Bologna, Italy: Il Mulino.
- Luyckx, K., Goossens, L., Soenens, B., Beyers, W., & Vansteenkiste, M. (2005). Identity statuses based on 4 rather than 2 identity dimensions: extending and refining Marcia's paradigm. *Journal of Youth and Adolescence*, 34(6), 605–618.
- Luyckx, K., Schwartz, S., Berzonsky, M., Soenens, B., Vansteenkiste, M., Smits, I., & Goossens, L. (2008). Capturing ruminative exploration: extending the four-dimensional model of identity formation in late adolescence. *Journal of Research in Personality*, 42(1), 58–82.
- Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology*, 3, 551–558.
- Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993). *Ego identity: A handbook for psychosocial research*. New York: Springer-Verlag.
- Meeus, W. (1993). Occupational identity development, school performance, and social support in adolescence: Findings of a Dutch study. *Adolescence*, 28(112), 809–818.
- Meeus, W., Iedema, J., Helsens, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. *Developmental Review*, 19, 419–461.
- Meeus, W., van de Schoot, R., Keijsers, L., & Branje, S. (2011). Identity statuses as developmental trajectories. A five-wave longitudinal study in early to middle and middle to late adolescents. *Journal of Youth and Adolescence*, 1–14.
- Nauta, N. M., & Kahn, J. H. (2007). Identity status, consistency and differentiation of interest and career decision self-efficacy. *Journal of Career Assessment*, 15(1), 55–65. <http://dx.doi.org/10.1177/1069072705283786>.
- Patton, W., & Porfeli, E. J. (2007). Career exploration. In V. B. Skorikov, & W. Patton (Eds.), *Career development in childhood and adolescence* (pp. 47–70). Rotterdam, The Netherlands: Sense Publishers.
- Porfeli, E. J., & Skorikov, V. (2010). Specific and diversive career exploration during late adolescence. *Journal of Career Assessment*, 18(1), 46–58.
- Porfeli, E. J. (2008). Career exploration. In F. T. L. Leong (Ed.), *Career counseling*, 3. (pp. 1474–1477). Thousand Oaks, CA: Sage.
- Porfeli, E. J. (2009). A five-dimensional measure of vocational identity status for adolescents. *Paper presented at the Society for Research on Child Development, Denver, CO*.
- Porfeli, E. J., Lee, B., & Vondracek, F. W. (2010). A multi-dimensional measure of vocational identity status. *Paper presented at the Society for Research on Adolescence, Philadelphia, PA*.
- Porfeli, E. J., Lee, B., & Weigold, I. K. (2012). A multidimensional measure of work valences. *Journal of Vocational Behavior*, 80, 340–350.
- Porfeli, E. J., Lee, B., Vondracek, F. W., & Weigold, I. K. (2011). A multidimensional measure of vocational identity status. *Journal of Adolescence*, 34, 853–871.
- Savickas, M. L. (1985). Identity in vocational development. *Journal of Vocational Behavior*, 27, 329–337.
- Schwartz, S. J. (2007). The structure of identity consolidation: Multiple correlated constructs or one superordinate construct? *Identity: An International Journal of Theory and Research*, 7, 27–49.
- Schwartz, S. J., Zamboanga, B. L., Luyckx, K., Meca, A., & Ritchie, R. A. (2013). Identity in emerging adulthood: Reviewing the field and looking forward. *Emerging Adulthood*, 1, 96–113.
- Sica, L. S., Aleni Sestito, L., & Ragozini, G. (2014). *Coping for identity in the first years of university: Identity diffusion, adjustment, and identity distress*. *Journal of Adult Development*.
- Skorikov, V. B., & Vondracek, F. W. (1998). Vocational identity development: Its relationship to other identity domains and to overall identity development. *Journal of Career Assessment*, 6, 13–35.
- Skorikov, V. B., & Vondracek, F. W. (2007). Vocational identity. In V. B. Skorikov, & W. Patton (Eds.), *Career development in childhood and adolescence* (pp. 143–168). Rotterdam: Sense Publishers.
- Skorikov, V. B., & Vondracek, F. W. (2011). Occupational identity. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research* (pp. 693–714). New York: Springer.
- Wallace-Brosious, A., Serafica, F. C., & Osipio, S. H. (1994). Adolescent career development: Relationship to self-concept and identity status. *Journal of Research on Adolescence*, 4(1), 127–149.
- Whittaker, L. (2008). "Scotland's shame": A dialogical analysis of the identity of young people not in education, employment or training. *Psychology & Society*, 1(1), 54–64.