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Different Types of Emerging Adult University Students: The Role of Achievement Strategies and Personality for Adulthood Self-perception and Life and Education Satisfaction

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ABSTRACT

The purpose of this study was to (a) identify different groups of emerging adult University students based on differences in achievement strategies and personality traits and (b) examine whether or not these groups were differentially related to the criteria deemed important for adulthood and to life and education satisfaction. Participants consisted of 282 Italian University students (59.6% women; $M_{age} = 22.28$). Results of cluster analysis identified three groups of emerging adults: *positive independent*, *negative dependent*, and *positive dependent*. Positive dependent young adults were more inclined than the other groups towards values of adulthood related to family and relationships while negative dependent adjusted young adults reported the lowest satisfaction in life. The results explain differences within emerging adult University students regarding self-perception of adulthood and life satisfaction.

Key words: emerging adulthood, achievement strategies, personality, satisfaction.

Novelty and Significance

What is already known about the topic?

- The term emerging adulthood has been largely adopted to describe a prolonged period of transition from adolescence to adulthood typical of youths (age 18 to late 20s) in modern Western societies.
- During this age period young people may vary in the extent to which they consider important to achieve certain criteria in order to become an adult.

What this paper adds?

- The present study contributes to understand the heterogeneity in the paths followed by youths during emerging adulthood.
- Results point out to within group differences among emerging adult University students based on achievement strategies and personality characteristics.
- Such individual features may be further adopted to describe individual differences in self-perception of adulthood and life satisfaction.

Scholars of the human and behavioral sciences have acknowledged that the traditional modes of transitions to adulthood have changed definitively in Western societies (e.g., Billari, & Liefbroer, 2010). In response to demographic and socioeconomic changes that have taken place during the last few decades, young men and women are in fact increasingly postponing the timing in which they go through their most important transition steps, such as leaving the parental home, getting a job, and forming a new family (Furstenberg, 2010). As a result, modern transition to adulthood is becoming longer and uncertain as well as more “individualized” (Iacovou, 2002). This means that individuals are no longer expected to become adults following predetermined social steps, but their identity development depends on how they are autonomously envisioning their future life trajectory.

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Arnett (2001) postulated the theory of *emerging adulthood* to describe the developmental status of people aged from 18 to late 20s in modern Western societies, asserting that the most important factor delaying the transition to full adulthood among young adults is the changing attitude about work and family life. Accordingly, from a subjective point of view, nowadays adulthood would be much more strongly defined by young people's growing tendency toward taking responsibility for one's actions, the capacity to accept family responsibilities and compliance with social norms (Arnett, 2003). Research has noticed how the degree of endorsement of such adulthood-related criteria during the transition to adulthood changes as emerging adults age and experience transition-linked phases, as being in a romantic relationship, leaving parents' house or getting a job (e.g., Nelson, 2009; Piumatti, Giannotta, Roggero, & Rabaglietti, 2013). Moreover, research findings pointing out young people individual variations in the extent to which they relate and conform to the criteria for adulthood have looked for instance at their religiosity (e.g., Rew & Wong, 2006; Zullig, Ward, & Horn, 2006), or deviant behaviours such as levels of drinking, drug use and sexual partners (e.g., Nelson & Padilla-Walker, 2013; Raver, 2009). Specifically, it has been highlighted as some young people report being further along than others in their identity development (Nelson & Barry, 2005). For example, some may turn their attention to family-oriented values of adulthood while others may still remain focused on achieving independence in order to consider themselves as adults. Concurrently, not only youths who consider more important criteria related to family and obligations to others and norm compliance, compared to those who don't (i.e., emerging adults) are less depressed (Galambos & Krahn, 2008) and engage in fewer risk taking behaviors (Nelson & Barry, 2005), but it is also becoming increasingly evident how achieving adult maturity accompanies increases in psychological well-being such as positive life-satisfaction (Kins & Beyers, 2010). Accordingly, it is of particular interest for psychological researchers to evidence further individual features that can characterize those young people who move faster towards adulthood from those who are still experiencing the in-between feeling of emerging adulthood.

Although research findings suggest that there may be indeed some young people who are "flourishing" during this period of life while others appear to be struggling, the interconnectedness between certain individual internal factors (e.g., personality, social strategies) and the increasing acceptance of roles and attitudes related to adulthood still needs to be largely explained. At this regard, many authors are pointing out that a new approach to study the modern transition to adulthood from a psychological perspective needs to adopt an individual life-course perspective and person-centered approach (see Elder, 1998; Salmela-Aro, 2009). Such an approach could help explain both individual differences and population heterogeneity by conceiving the transition to adulthood not only by the time and circumstances of birth, but also by individual experiences and actions. According to this theory, individual differences in terms of well-being and identity construction along the transition to adulthood might depend on one's resources (agent personality, advanced forms of psychological development) and on how individuals react to situations and benefit from what they have to offer (family support, peer support, etc.). Especially in an academic context then, emerging adults' outcomes, such as achievement

and satisfaction, are influenced by of the way they approach and respond to academic situations (Salmela-Aro, Tolvanen, & Nurmi, 2009), as well as by their personality traits (Shahar, Kalnitzki, Shulman, & Blatt, 2005). It is common, for example, to find young people who have personalities less adapted to manage stressful situations and to assist them during the crucial transition of finishing education (Shulman, Kalnitzki, & Shahar, 2009) along with unfocused strategies to carry out their tasks (Evans & Heinz, 1994). In turn, these personal resources and individual skills are crucially important for effective functioning within and between institutions, and for developing the means necessary for “fitting in” and “becoming” part of a community (Côté, 2002). Moreover, such results indicate that explanatory styles are correlated with cognitive functioning (self-esteem, pessimism, coping skills), and interpersonal functioning (social competence, conflict with parents, family and friends social support) (Schwartz, Kaslow, Seeley & Levinson, 2000). Thus, one way to explore which internal factors may explain why some emerging adults are further along in their identity development towards adulthood, and report higher well-being than others, might be to look at differences in terms of achievement strategies and personality. Particularly, few empirical attempts have been made to investigate whether the diversity of individual experiences in emerging adulthood may be captured in broader typologies of individuals in emerging adulthood. Therefore, the purpose of this study was to (a) identify different groups of emerging adult University students based on differences in achievement strategies and personality traits and (b) examine whether or not these groups were differentially related to the criteria deemed important for adulthood and life-satisfaction. Although we recognize that emerging adults who do not attend University are likely to be different to those who do regarding the way they envision adulthood (see Hamilton & Hamilton, 2006), the hypothesis of within-group differences among the latter has not yet been fully explored.

Two relevant theoretical approaches have been adopted to describe why some young people have more successful strategies than others to cope with challenges and problems in academic-related contexts. The first draws from sociological and social-psychological research on normative and structural school-to-work transition (see Blustein, Juntunen, & Worthington, 2000). This model suggests that the extent to which individuals cope successfully with different challenges and problems is influenced by their ways of thinking and acting in specific situations (Nurmi, Salmela-Aro, & Haavisto, 1995). Such strategies differ according to a number of psychological components: inclination to expect failure or success (Cantor, 1990), avoiding tasks or engaging in task-irrelevant behaviour (Martin, Marsh, & Debus, 2003), and seeking social support (Nurmi, Salmela-Aro & Ruotsalainen, 1994). According to these strategies and components, some individuals deliberately seek to avoid challenging situations rather than make an active effort to deal with them, especially when they face the prospect of failure. This sort of self-handicapping strategy protects people’s sense of competence by using it as an excuse for the anticipated failure and for decreasing anxiety (Martin, Marsh, & Debus, 2003). On the contrary, other people tend to have more optimistic and task-focused expectations and strategies (Salmela-Aro, 2009). When taken together, these motivational and behavioural patterns have been described as cognitive and attributional strategies (Cantor, 1990) or motivational styles (Pintrich, Roeser, & DeGroot, 1994). In the present study, we use the

term achievement strategies to refer to individuals' ways of approaching and responding to academic situations (Onatsu-Arvilommi & Nurmi, 2000). Individual differences in such patterns were operationalized by the following constructs: success expectation, seeking social support, task-irrelevant behavior, avoidance and pessimism.

The second theoretical approach that aims at evidencing individual directions regarding identity construction and well-being emphasizes the role of personality. According to Blatt (1998, 2008) -one of the proponents of such theories- optimally developing individuals can increasingly be involved in relations whilst at the same time maintaining a strong focus on their actions and goals. These individuals do not neglect interpersonal relationships while they strive for achievement and self-definition because they are able to listen to advice and receive help from others. On the other hand, those individuals who are only focused on attaining close and reciprocal relations at the expense of self-definition develop a dependent personality style, and their actions may in turn not be positively motivated. For example, Blatt and his colleagues found that self-critical and dependent personality traits were related to a lack of autonomous regulation, which in turn was related to a lack of positive life events and low life-satisfaction (Blatt, 2008; Blatt & Zuroff, 1992). Moreover, research on the connection between personality and collectivistic-individualistic values has shown that a sense of self as an autonomous, independent person versus a sense of self as more connected to others, is related to an emphasis on personal attributes versus community's roles and norms, and the maintenance of relationships for personal benefit rather than for a sense of connection and obligation (Grimm, Church, Katigbak, & Reyes, 1999). Concurrently, research focusing on what criteria emerging adults deem necessary for adulthood has referred to group and individual differences in terms of collectivistic versus individualistic tendencies (e.g., Badger, Nelson, & Barry, 2006; Cheah, Trinder, & Gokavi, 2010). Thus, individuals that are more group- or other-oriented might place greater importance on values related to the instauration of long-term relationships and the compliance with societal norms and rules while more self-oriented individuals might give them less emphasis. Here, we will refer to Blatt's theory of personality by taking into account two types of personality traits: self-criticism, describing preoccupation with achievement and fear of failing, and dependency, reflecting a wish to be cared for, loved, and protected.

The aim of this study was to (a) identify different groups of emerging adult University students based on differences in achievement strategies and personality traits and (b) examine whether or not these groups were differentially related to the criteria deemed important for adulthood and life-satisfaction. Although specific hypotheses were not possible at the outset of the study because of the impossibility of knowing in advance what groups would have resulted from the analyses, several general hypotheses were made. Firstly, based upon reading from previous research (Piumatti, Giannotta, Roggero, & Rabaglietti, 2013) we expected Italian emerging adult University students to consider criteria involving collectivistic values, such as family and relationships, particularly important for achieving adulthood. Secondly, it was hypothesized that the group of individuals exhibiting negative expectations (e.g., low success expectation, high pessimism) would feel less satisfied in comparison with the groups of individuals

that show more positive success expectations and a lower inclination to avoid tasks. Thirdly, it was hypothesized that the group with higher dependent personality would be more inclined towards criteria involving interdependence (i.e., the acquisition of stable and secure relationships) than groups with lower dependent personality traits. Lastly, we expected that the group more focused on the typical criteria for adulthood (e.g., family capacities, norm compliance, and interdependence) would also exhibit higher satisfaction than others.

METHOD

Participants and Procedure

The sample used in the current study consisted of 282 University students (59.6% women, $n = 168$) recruited within the University of Turin in the North-west of Italy. The mean age of the sample was 22.3 years ($SD = 2.5$; age ranged from 18 to 28). Participants completed a questionnaire via the Internet. They were recruited through an announcement of the study in undergraduate and postgraduate courses. Eighty-three percent of the individuals who initially accepted to take part into the study providing their emails completed an online questionnaire. Informed consent was obtained online, and only after consent was given could the participants begin the questionnaires. The Italian versions of the scales included in the questionnaire were created by translating and back translating them by English native speakers.

Measures

- *Socio-demographic characteristics.* Participants were asked to report on their current relationship status (single vs. in a relationship), housing condition (living at the parental home vs. living outside parents' house) and working status (full-time student vs. working and studying at the same time). In addition, participants' socio-economic status (SES) was calculated, adopting a series of questions tapping the following issues: parents' level of education (scoring 0= secondary school or high school diploma, 1= bachelor degree, 2= master degree), type of family's housing situation (0= renting property, 1= own property), self-reported current economic situation ("How would you rate your family's current economic condition?", scoring 0= not good at all, 1= not very good, 2= averagely good, 3= good, 4= very good) and past economic situation ("How is your current family's economic situation in relation with last year's situation?", 0= worse, 1= stable, 2= ameliorated). Based on these sets of questions, participants were categorized as having a low SES (total score ≤ 4), medium SES ($4 < \text{total score} \leq 8$) or high SES (total score > 8).
- *Achievement strategies.* Achievement strategies were assessed using the *Strategy and Attribution Questionnaire* (SAQ) (for details see Nurmi *et al.* 1995). The participants were asked to rate statements on a 4-point rating scale (1= Strongly agree, and 4= Strongly disagree). Out of the ten scales composing the SAQ, the following five were applied: the *success expectation* subscale (Cronbach's $\alpha = .68$) measuring the extent to which people expect success and are not anxious about the possibility of failure (4 items, e.g., "When I get ready to start a task, I am usually certain that I will succeed in it"); the *task-irrelevant behaviour* subscale ($\alpha = .73$) measuring the extent to

which people tend to behave in a social situation in ways which prevent rather than promote involvement (7 items, e.g., “What often occurs is that I find something else to do when I have a difficult task in front of me”); the *avoidance* subscale ($\alpha = .82$) measuring the extent to which people have a tendency to avoid social situations and feel anxious and uncomfortable in them (6 items, e.g., “I often feel uncomfortable in a large group of people”); the *seeking social support* subscale ($\alpha = .75$) measuring the extent to which people tend to seek social support from other people (6 items, e.g., “It is not worth complaining to others about your worries”); and the *pessimism* subscale ($\alpha = .60$) measuring the extent to which people are concerned with and think continuously about the possibility of failure (4 items, e.g., “When I meet new people I expect something to go wrong even though I know that I will probably manage quite well”). The analysis of internal consistency pointed out that subscales’ alpha levels in our sample were aligned with previous studies’ results (e.g., Nosenko, Arshava, & Kutovyy, 2014; Salmela-Aro *et al.* 2009). Nevertheless, we conducted a confirmatory factor analysis to investigate whether the items were interpretable along these two dimensions in the current Italian sample. The model yielded an acceptable fit ($\chi^2 = 351.61$, $df = 290$, $p < .001$, CFI = .91, TLI = .90; RMSEA = .06), suggesting that the items load well on the two factors.

- *Personality*. Participants’ personality was assessed by means of the *Theoretical Depressive Experiences Questionnaire* (TDEQ) (Viglione, Lovette, Gottlieb, & Friedberg, 1995). This 12-item instrument taps experiences frequently reported by depressed patients, but that are not direct symptomatic expressions of depression. It mainly differentiates between the following two personality traits: *self-criticism* ($\alpha = .73$), reflecting preoccupation with achievement, inferiority, and guilt in the face of perceived failure to meet standards (7 items, e.g., “It is not who you are but what you have accomplished that counts”), and *dependency* ($\alpha = .63$), reflecting a wish to be cared for, loved, and protected (5 items, e.g., “Without the support of others who are close to me, I would be helpless”). Items are presented in both positive and negative directions, and are rated on a seven-point scale. The analysis of internal consistency pointed out that subscales’ alpha levels in our sample were aligned with previous studies’ results (e.g., Desmet *et al.*, 2007). We conducted a confirmatory factor analysis to investigate whether the items were interpretable along these two dimensions in the current Italian sample. The model yielded an acceptable fit ($\chi^2 = 232.85$, $df = 53$, $p < .001$, CFI = .99, TLI = .99; RMSEA = .03), suggesting that the items load well on the two factors.
- *Importance of criteria for adulthood*. Participants rated the importance of 36 criteria for adulthood (e.g., Arnett, 2003) on their degree of importance on a scale of 1 (not at all important) through 4 (very important). Based on previous research (e.g., Arnett, 2001; 2003), the criteria were then grouped into six categories including *interdependence* ($\alpha = .60$; 5 items; e.g., “Committed to long-term love relationship”), *role transitions* ($\alpha = .84$; 6 items; e.g., “Have at least one child”), *norm compliance* ($\alpha = .82$; 8 items; e.g., “Avoid becoming drunk”), *age/biological transitions* ($\alpha = .70$; 4 items; e.g., “Grow to full height”), *legal transitions* ($\alpha = .81$; 5 items; e.g., “Have obtained license and can drive an automobile”) and *family capacities* ($\alpha = .75$; 8 items; e.g., “Become capable of caring for children”). The analysis of internal consistency pointed out that subscales’ alpha levels in our sample were aligned with previous studies’ results (e.g., Nelson & Barry, 2005; Sirsch, Dreher, Mayr, & Willinger, 2009). The organization of the subscales was obtained through a theory based approach rather than by a quantitative statistical approach such as factor analysis (Arnett, 2001). Specifically, the items of the family capacities subscale were all drawn from anthropological literature, which

has identified gender-specific criteria used in many traditional cultures as criteria for the transition to adulthood (Gilmore, 1990). Similarly, the items on the role transitions subscale were drawn from sociological literature, which has long used a series of specific role transitions as the defining criteria for the transition to adulthood (Goldscheider & Goldscheider, 1999).

- *Life and Educational Track Satisfaction.* Life satisfaction ($\alpha = .64$) was assessed with an adaptation of the five-item *Satisfaction with Life Scale* (Diener, Emmons, Larsen, & Griffin, 1985; Pavot, & Diener, 2008). The items (e.g., "In most ways my life is close to my ideal") were rated on a 4-point Likert-type scale ranging from 1 (I totally disagree) to 4 (I totally agree). Educational track satisfaction after the transition to post-comprehensive schooling ($\alpha = .70$) was measured by the Satisfaction with Educational Track scale (Nurmi, Niemivirta, & Salmela-Aro, 2003). The items (e.g., "How satisfied are you with your educational track?") were rated on a 5-point scale ranging from 1 (not at all) to 5 (very much). A confirmatory factor analysis including both dimensions of satisfaction resulted in a model with an acceptable fit ($\chi^2 = 109.14$, $df = 26$, $p < .001$, CFI = .92, TLI = .90; RMSEA = .07).

Data analysis

Before proceeding to analyze the data, all the scores of the items for each subscale were examined for accuracy of data entry, checking the normality of the distributions, detecting and replacing missing values, identifying univariate outliers. We also examined the data for detecting multicollinearity and nonnormal distribution among dependent variables. A number of univariate analyses of variance (ANOVAs) were conducted to examine gender differences on the variables regarding achievement strategies, personality, importance of criteria for adulthood, life satisfaction and education satisfaction. Prior to cluster analysis, achievement strategies and personality scores were standardized to permit direct comparison between scales. Classification of the students into subgroups on the basis of these two groups of scales was then carried out in two phases. Ward's hierarchical clustering method was initially used to look at the data for appropriate solutions. The chosen solution was then refined running the *K*-means partitioning algorithm on the previously estimated cluster centroids in order to generate the final cluster membership configuration. Post-hoc ANOVA and χ^2 -tests were then carried out to check for further significant differences between groups according to continuous (age) and categorical (gender, housing condition, relationship status, socio-economic status) variables. Finally, in accordance with Cramer and Bock (1966), MANOVA -to look at differences in importance addressed to the criteria for adulthood and for life and education satisfaction depending on cluster membership- was performed first to help protect against inflating the Type 1 error rate in the follow-up ANOVAs and post-hoc comparisons. However, prior to conducting the MANOVA, a series of Pearson correlations were carried out between all of the dependent variables in order to test the MANOVA assumption that the dependent variables would be correlated with each other in a moderate range (i.e., .20-.60; Meyers, Gampst, & Guarino, 2006).

RESULTS

Values of skewness and kurtosis ranged respectively from $-.46$ to $.47$ and from $-.98$ to $.54$ confirming the assumption of normality of the distributions of the variables in our study. There were less than 5% missing data on any of the variables in the current analysis. Full information maximum likelihood was used to handle missing data. This decision was also made as no systematic correlation between these missing values and the scores of other variables among these subjects was detected ($r < 1.20$). With the use of a $p < .001$ criterion for Mahalanobis distance no outliers among the cases were found. Accordingly, no case was excluded from further analysis.

Table 1 reports bivariate correlations among psychological study variables using the Pearson r coefficient. Correlations among subscales regarding criteria for adulthood were small to moderate in magnitude (ranging from $r = .23$ to $r = .67$) confirming that these domains in which adult status is expected to be demonstrated reflect different facets or markers of adulthood. The correlation between the two personality constructs (dependency and self-criticism) was equal to $.56$ while the correlation between life satisfaction and education satisfaction was equal to $.36$, confirming that these constructs were describing different facets of personality and satisfaction respectively. The meaningful pattern of correlations amongst categories of criteria for adulthood and between measures of satisfaction suggests the appropriateness of MANOVA regarding both sets of measures. These preliminary results should not present problems in terms of dependent variables' multicollinearity. Additionally, the Box's M values of 36.83 and 117.84 (for criteria of adulthood and satisfaction respectively) were associated with a p value of $.75$ and $.60$. Thus, the covariance matrices between the groups were assumed to be equal for the purposes of the MANOVAs.

Among the participants, 127 (45%) declared to be single at the time of data collection and 155 (55%) to be in a relationship. 130 (46.1%) reported living outside their parents' home in an apartment, house, or dormitory. 42 (14.9%) reported having a part-time job aside from their studies. Lastly, 69 (24.5%) were classified as with low SES, 151 (53.5%) with medium SES and 61 (21.6%) with high SES.

According to the results of the ANOVAs testing gender differences on the 15 variables of the study young men ($M = 2.14$, $SD = .47$) reported higher scores on task-irrelevant behaviour than young women did ($M = 2.00$, $SD = .45$), while young women ($M = 4.36$, $SD = 1.02$) reported higher scores on dependency than young men did ($M = 3.72$, $SD = .80$). Regarding importance attributed to criteria for adulthood, young women ($M = 2.14$, $SD = .47$) considered norm compliance criteria more important than young men did ($M = 2.91$, $SD = .63$), while young men ($M = 2.16$, $SD = .77$) considered legal transitions criteria more important than young women did ($M = 1.90$, $SD = .66$).

The clustering process yielded two suitable configurations of two and three clusters respectively. Solutions were compared on the basis of inspection of the dendrogram tree of cluster hierarchy, the cluster distance coefficients and the pseudo- F statistic (for a review, Milligan & Cooper, 1985) reported for each step of the agglomeration schedule. The three cluster solution was found to be numerically more balanced than the two

Table 1. Bivariate correlations among psychological study variables (N= 282).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
SE	-														3.07 (.42)
SSS	.26**	-													3.12 (.44)
Achievement strategies															
T-IV	-.50**	-.35**	-												2.03 (.46)
A	-.65**	-.23**	-.23**	-											2.13 (.57)
P	-.36**	-.05	-.05	.34**	-										2.37 (.51)
Personality															
D	-.13*	.04	.04	.23**	.42**	-									2.24 (1.01)
S-C	-.32**	-.18**	-.18**	.44**	.52**	.56**	-								4.47 (.92)
FC	.15*	.12*	-.07	-.06	.06	.11	.06	-							3.21 (.52)
NC	.11	.04	-.01	.01	.08	.06	-.04	.41**	-						3.01 (.57)
Criteria for adulthood															
I	.10	.07	-.00	-.02	.10	.11	.10	.49**	.40**	-					3.00 (.45)
A/BT	.10	.02	-.05	-.06	.05	-.03	-.01	.50**	.33**	.46**	-				2.41 (.71)
RT	.06	-.01	-.03	-.03	.09	.05	.08	.47**	.36**	.45**	.46**	-			2.70 (.70)
LT	.05	-.01	-.01	-.05	.08	-.03	.03	.33**	.23**	.37**	.67**	.34*	-		1.95 (.69)
Satisfaction															
LS	.31**	.17**	-.19**	-.30**	-.19**	-.20**	-.36**	.11	.05	.01	.07	.08	.05	-	3.06 (.54)
ES	.16**	.10	-.10	-.10	-.09	-.05	-.13*	.02	.04	.13*	.02	-.02	-.05	.36**	3.73 (.62)

Notes: * = $p < .05$; ** = $p < .01$; SE = Success expectations; SSS = Seeking social support; T-IV = Task-irrelevant behavior; A = Avoidance; P = Pessimism; D = Dependency; S-C = Self-criticism; FC = Family capacities; NC = Norm compliance; I = Interdependence; A/BT = Age/biological transitions; RT = Role transitions; LT = Legal transitions; LS = Life satisfaction; ES = Education satisfaction.

cluster structure, the latter unevenly composed of a large subgroup accounting for three quarters of the sample, with the rest of the students in a smaller cluster. Concurrently, analyses of variance for both achievement strategies and personality measures (see Table 2 and Figure 1) revealed the three clusters configuration to provide a more effectively differentiated grouping of the participants than the two clusters solution, thus leading to a rejection of the latter as a non-adequately contrasting description of sample variability for the chosen criteria. The three clusters did not differ according to age, gender, housing condition, relationship status, working status and SES composition.

The first cluster, characterized by low scores on self-criticism, dependency, avoidance, task-irrelevant behaviour and pessimism and high scores on success expectation and seeking support, was named positive independent ($n= 119$). This cluster's pattern of achievement strategies and personality suggests emerging adult University students from this subgroup may feel particularly confident in goal achievement and in performing personal tasks without being strongly dependent on the support of others. In particular,

Table 2. Means differences on achievement strategies and personality scores as a function of cluster membership.

		Positive independent ($n= 119$) <i>M (SD)</i>	Negative dependent ($n= 72$) <i>M (SD)</i>	Positive dependent ($n= 91$) <i>M (SD)</i>	<i>F</i>	η^2
Achievement strategies	Success expectations	3.21 _a (.34)	2.65 _b (.34)	3.23 _a (.33)	78.05 ^{***}	.36
	Seeking social support	3.15 _a (.41)	2.87 _b (.45)	3.27 _c (.40)	18.60 ^{***}	.12
	Task-irrelevant behaviour	1.88 _a (.39)	2.48 _b (.34)	1.87 _a (.38)	69.11 ^{***}	.33
	Avoidance	1.88 _a (.41)	2.80 _b (.43)	1.93 _a (.41)	127.99 ^{***}	.48
	Pessimism	2.05 _a (.37)	2.75 _b (.45)	2.47 _c (.49)	64.68 ^{***}	.32
Personality	Dependency	3.44 _a (.66)	4.66 _b (.93)	4.94 _c (.67)	122.75 ^{***}	.47
	Self-criticism	3.74 _a (.65)	5.23 _b (.65)	4.82 _c (.69)	131.03 ^{***}	.48

Notes: Class means in a row sharing different subscripts are statistically different at the $p < .05$ level according to LSD post hoc analyses; ***= $p < .001$.

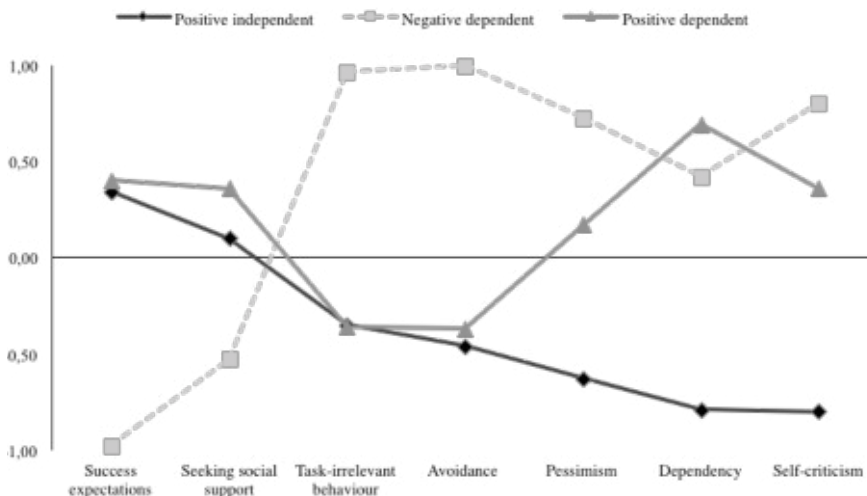


Figure 1. Clusters' profile plot by achievement strategies and personality measures mean scores (z-scores).

they showed the lowest levels of dependent and self-critical personality traits in comparison with young adults belonging to the other two clusters.

The second cluster, characterized by high scores on self-criticism, dependency, avoidance, task-irrelevant behaviour and pessimism and low scores on success expectation and seeking support, was named negative dependent ($n= 72$). Emerging adult University students from this subgroup experienced the most negative expectations in goal achievement and task performance, thus their actions may not be positively motivated. Moreover, they showed the strongest dependent personality traits reporting in particular a very high tendency to avoid stressing task-related situations compared with individuals belonging to the other two clusters.

The third and last cluster, characterized by high scores on self-criticism, dependency, success expectation, seeking support, pessimism and low scores on avoidance and task-irrelevant behaviour, was named positive dependent ($n= 91$). Individuals belonging to this subgroup are more prone than positive independent individuals to be involved in relations with others while they maintain, at the same time, a stronger and more positive focus on their actions and goals compared with negative dependent emerging adult University students. They appear to be able to listen to advice and receive help from others without losing control on their own actions.

Two MANOVAs were conducted to determine whether importance addressed to the criteria for adulthood and life and education satisfaction differed as a function of class membership. In the first MANOVA class membership was entered as independent variable with the six criteria for adulthood (family capacities, norm compliance, interdependence, age/biological transitions, role transitions, legal transitions) as dependent variables. Results revealed a significant main effect of cluster membership, Pillais' Trace= .09, $F(12, N= 282)= 2.06$, $p < .05$; partial $\eta^2= .04$, implying that 9% of the variance in the canonically derived dependent variable was accounted for by class membership. Prior to conducting a series of follow-up ANOVAs, the homogeneity of variance assumption was tested for all the subscales. Based on a series of Levene's F tests, the homogeneity of variance assumption was considered satisfactory. A series of one-way ANOVAs on each of the six dependent variables was conducted as a follow-up test to the MANOVAs. Three of the six criteria for adulthood were significantly different as a function of class membership (see Table 3 and Figure 2). Based on post hoc analyses, it was determined that positive dependent emerging adults ($M= 3.36$, $SD= .47$) rated family capacities as more important than positive independent did ($M= 3.07$, $SD= .48$) and negative dependent ($M= 3.20$, $SD= .55$) (who did not differ from one another). Moreover, positive dependent ($M= 3.13$, $SD= .37$) emerging adults rated interdependence as more important than positive independent did ($M= 2.92$, $SD= .44$) and negative dependent emerging adults ($M= 2.97$, $SD= .49$) (who did not differ from one another). In addition, positive independent ($M= 3.15$, $SD= .55$) and positive dependent ($M= 3.10$, $SD= .55$) emerging adults (who did not differ from one another) rated norm compliance as more important than negative dependent emerging adults did ($M= 2.88$, $SD= .59$). In the second MANOVA class membership was entered as independent variable with the life and education satisfaction as dependent variables. Results revealed a significant main effect of cluster membership, Pillais' Trace= .13, $F(4, N= 282)= 9.84$, $p < .001$; partial $\eta^2= .07$, implying that 13% of

Table 3. Differences in outcome variables as a function of cluster membership.

		Positive independent (<i>n</i> = 119) <i>M</i> (<i>SD</i>)	Negative dependent (<i>n</i> = 72) <i>M</i> (<i>SD</i>)	Positive dependent (<i>n</i> = 91) <i>M</i> (<i>SD</i>)	<i>F</i>	η^2
Criteria for adulthood	Family capacities	3.20 _a (.55)	3.07 _a (.48)	3.37 _b (.47)	6.58**	.05
	Norm compliance	3.10 _a (.55)	2.88 _b (.59)	3.15 _a (.55)	5.22**	.04
	Interdependence	2.97 _a (.49)	2.92 _a (.44)	3.13 _b (.37)	5.18**	.04
	Age/biological transitions	2.34 (.69)	2.40 (.71)	2.49 (.73)	.88	.01
	Role transitions	2.67 (.71)	2.63 (.66)	2.80 (.72)	1.25	.01
	Legal transitions	1.94 (.68)	1.91 (.69)	1.99 (.71)	.29	.00
Satisfaction	Life satisfaction	3.19 _a (.49)	2.75 _b (.56)	3.14 _a (.49)	19.10***	.12
	Education satisfaction	3.83 _a (.56)	3.58 _b (.64)	3.73 _a (.67)	3.53*	.03

Notes: Class means in a row sharing different subscripts are statistically different at the $p < .05$ level according to LSD post hoc analyses; * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

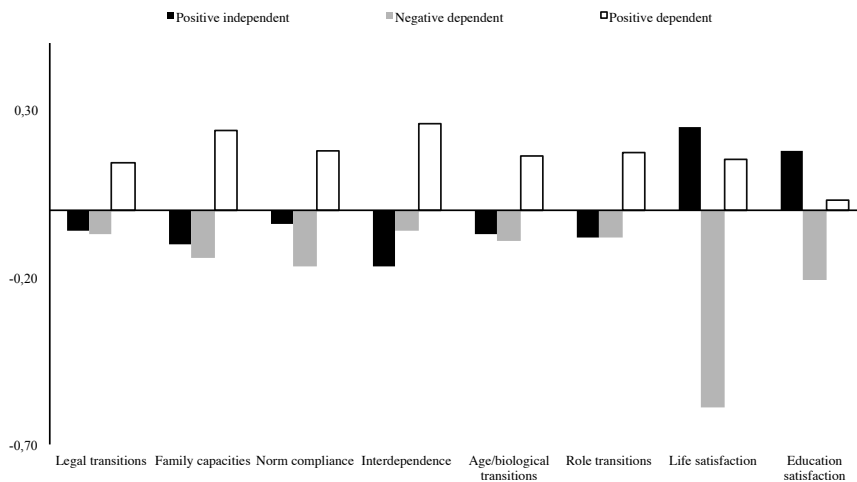


Figure 2. Clusters' profile plot by criteria for adulthood and satisfaction measures mean scores (z scores).

the variance in the canonically derived dependent variable was accounted for by class membership. Also in this case the homogeneity of variance assumption was considered satisfactory by the means of a series of Levene's F tests. Based on post hoc analysis it was determined that positive independent ($M = 3.19$, $SD = .49$; $M = 3.83$, $SD = .56$) and positive dependent ($M = 3.14$, $SD = .49$; $M = 3.73$, $SD = .67$) emerging adults (who did not differ from one another) had higher levels of life satisfaction and education satisfaction than negative dependent emerging adults did ($M = 2.75$, $SD = .56$; $M = 3.58$, $SD = .64$).

DISCUSSION

The purpose of this study was to (a) identify different groups of emerging adult University students based on differences in achievement strategies and personality traits

and (b) examine whether or not these groups were differentially related to the criteria deemed important for adulthood and life-satisfaction. In accordance with previous research (e.g., Salmela-Aro & Tynkkynen, 2009) it was clear that the majority of young adults exhibit positive expectations in their daily activities and their approach to life is definitively optimistic. Moreover, the results point out to within group differences among emerging adult University students based on achievement strategies and personality characteristics. Such individual features may be further adopted to describe individual differences in self-perception of adulthood and life satisfaction. In addition, although the strict cross-sectional and correlational nature of our data can only partially explain which individual characteristics may favor a positive development during this age period, our findings have nevertheless showed the interconnection between several internal factors and their role for the individual construction of adult identity among emerging adults.

Like emerging adults in United States, Greece and Austria (Nelson & Barry, 2005; Petrogiannis, 2011; Sirsch *et al.* 2009), Italian emerging adults showed high levels of consent regarding Arnett's features for adulthood. As expected, the highest importance was attributed to collectivistic criteria representing the more traditional cultural values of family obligations and consideration for others. In line with previous research findings (Piumatti *et al.* 2013) Italian young adults considered the most important criterion for becoming an adult the capabilities of the individual for having and maintaining a family. This attitude could be the consequence of the actual amount of engagement and commitment Italian emerging adults feel towards their family of origin. Indeed, previous research has shown how Italian emerging adults stay with their families of origin to reinforce their position in the job market and prefer to abandon the family nest only after achieving economic independence (Piumatti *et al.* 2014). Only after the consolidation of their economic independence can they confidently move on and think about getting married or having a child. Therefore, we can read their intention of focusing more on family and relationships in order to achieve their goals of personal fulfillment in these same areas in the future. Indeed, it is important to point out that the support received from the family of origin is itself a significant aspect of the Italian context. In a study conducted by Paleari, Rosnati and Lanz (2002), which involved entire family nuclei from Italy, that is, immediate and extended family members, they noted that the support received from one's own family has an essential role in the psychological well-being of the young adult.

By looking at the differences between young adults' subgroups we can notice that the only group showing low satisfaction regarding both their lives and education tracks is the negative dependent group. Overall, the results from this subgroup suggest that achievement strategies interact closely with individuals' well-being. This is in accordance with the notion that cognitive structures, such as expectations, beliefs, and strategies function as antecedents of internalized behavior (Nurmi, 2004), which in turn can also have an impact on academic adjustment and engagement (Nurmi *et al.* 2003). In fact, negative dependent young adults reported negative expectations (high pessimism, low success expectations), high levels of task-avoidance and did not show a predisposition to seek social support. Moreover, the high self-critical personality characteristic of this subgroup may contribute to explain its maladaptive and negative outcomes in terms

of satisfaction. In fact, not only research has acknowledged that negative self-defined personality traits confer vulnerability to a wide range of psychopathologies including depression (see Blatt, 2008), but self-concept and self-esteem have been found to play an important role in the adoption of a particular achievement strategy. For example, people with relatively low self-esteem apply more self-handicapping (avoidance, task-irrelevant behaviour) than those with high self-esteem (Onatsu-Arvilommi & Nurmi, 2000). Thus, negative dependent young adults in our sample may suffer both the negative counterbalance of their ineffective and self-handicapping achievement strategies and the negative reinforcement of a highly self-critical image of themselves.

Lastly, an important finding of this study is to have highlighted the group of young adults who appear to have developed an adult identity sooner than others that is aligned with values related to family and commitment to others. The contrapositions between this group (i.e., positive dependent) and the others (i.e., positive independent and negative dependent) are articulated. Positive dependent young adults report the highest levels of seeking social support and dependency personality trait. This finding confirms our hypothesis stating that a high dependent personality is more inclined towards criteria involving the acquisition of stable and secure relationships than a low dependent personality (see Kopala-Sibley, Zuroff, Russell, Moskowitz, & Paris, 2012). In particular, positive dependent emerging adults seem to have developed a healthier view of close relationships with others and to have acquired a more positive self-view. In relation to these findings, recent research on lifespan perspective on dependency and self-criticism (see Kopala-Sibley, Mongrain, & Zuroff, 2013) has found that being in a romantic relationship promoted lower levels of self-criticism and higher levels of dependency comparing to not being in a romantic relationship. Indeed, dependency involves “the development of increasingly mature, intimate, mutually satisfying, reciprocal, interpersonal relationships” (Blatt, 2007, p. 496). Moreover, research on social investment theory (e.g., Roberts, Wood, & Smith, 2005) suggests that transitions during adulthood related to work, marriage and family are likely to bring about personality development in the direction of increasing maturity including emotional stability, social responsibility, and interpersonal warmth. In this sense, positive dependent emerging adults seem in the process of becoming less self-oriented and to commit themselves to enduring relationships with others. Indeed, they show a predisposition to be involved in relationships and to maintain a strong focus on their actions and goals. In addition, as was expected, achieving adult maturity is associated with experiences of higher well-being (Galambos & Krahn, 2008; Kins & Beyers, 2010). The fact that this group of emerging adults reported the same level of satisfaction in life and for their education track as their positive independent peers might mean that they developed an optimal attitude to not neglect interpersonal relationships and to strive for their personal achievement while listening to advice and receiving help from others.

This study was not without limitations. As noted previously, the correlative nature of the analyses precludes causal inferences. Longitudinal studies will evidence which factors during childhood and adolescence might predict achievement strategies and personality development during emerging adulthood and to observe how in correspondence with crucial life events (e.g., leaving the parental home, getting married, starting a

new job) personality and achievement strategies' predispositions may help to explain individuals transition trajectories regarding adulthood's self-perception and well-being. Another limitation is that participants only included University students. More research is needed to increase knowledge about individual differences in young people who do not attend University after high school, especially on issues related to criteria for adulthood, attitudes and beliefs about marriage and family life and identity formation. On a related note, the small sample size adopted here cannot be representative of the normal population. Despite these weaknesses, this study contributes to confirm and expand the multifaceted view on transition to adulthood by showing the intercorrelation between Arnett's theory of emerging adulthood, achievement strategies and personality predispositions among young adults. Such findings shed light on the otherwise still partially uncovered issue regarding emerging adults' differences in self-perception of adulthood and adult identity development.

REFERENCES

- Arnett JJ (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development*, 8, 133-143.
- Arnett JJ (2003). Conceptions of the transition to adulthood among emerging adults in American ethnic groups. *New directions in child and adolescent development*, 100, 63-75.
- Badger S, Nelson LJ, & Barry CM (2006). Perceptions of the transition to adulthood among Chinese and American emerging adults. *International Journal of Behavioral Development*, 30, 84-93.
- Billari F & Liefbroer AC (2010). Towards a new pattern of transition to adulthood. *Advances in Life Course Research*, 15, 59-75.
- Blatt JS (1998). Contributions of psychoanalysis to the understanding and treatment of depression. *Journal of the American Psychoanalytic Association*, 46, 723-752.
- Blatt JS (2007). A Fundamental polarity in psychoanalysis: Implications for personality development, psychopathology, and the therapeutic process. *Psychoanalytic Inquiry*, 26, 494-520.
- Blatt JS (2008). *Polarities of experience, relatedness and self-definition in personality development, psychopathology, and the therapeutic process*. Washington, DC: American Psychological Association.
- Blatt JS, D'Aflitti JP, & Quinlan DM (1976). Experiences of depression in normal young adults. *Journal of Abnormal Psychology*, 85, 383-389.
- Blatt JS & Zuroff, DC (1992). Interpersonal Relatedness and Self-definition: Two prototypes for depression. *Clinical Psychology Review*, 12, 527-562.
- Blustein D, Juntunen C, & Worthington R (2000) The School-Work transition: Adjustment challenges of the forgotten half. In SD Brown & RW Lent (Eds.). *Handbook of Counseling Psychology* (pp. 435-470). New York: Wiley.
- Cantor N (1990). From thought to behavior. "Having" and "doing" in the study of personality and cognition. *American Psychologist*, 45, 735-750.
- Cheah CSL, Trinder KM, & Gokavi TN (2010). Urban/rural and gender differences among Canadian emerging adults. *International Journal of Behavioral Development*, 34, 339-344.
- Côté JE (2002). The role of identity capital in the transition to adulthood: The individualization thesis examined. *Journal of Youth Studies*, 5, 117-134.
- Cramer EM & Bock RD (1966). Multivariate analysis. *Review of Educational Research*, 36, 604-617.
- Desmet M, Vanheule S, Groenvynck H, Verhaeghe P, Vogel J, & Bogaerts S (2007). The Depressive Experiences Questionnaire. An Inquiry into the Different Scoring Procedures. *European Journal of Psychological Assessment*, 23, 89-98.
- Diener E, Emmons, RA, Larsen RJ, & Griffin S (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75.

- Elder G H (1998). The life course and human development. In Damon W & Lerner R (Eds.), *Theoretical models of human development Handbook of child psychology*. Vol. 1 (pp. 939-991). Hoboken, NJ: John Wiley & Sons, Inc.
- Evans K & Heinz WR (1994). *Becoming Adults in England and Germany*. London: Anglo-German Foundation.
- Furstenberg FF (2010). On a new schedule: Transitions to adulthood and family change. *The Future of Children*, 20, 67-87.
- Galambos NL & Krahn HJ (2008). Depression and anger trajectories during the transition to adulthood. *Journal of Marriage and Family*, 70, 15-27.
- Gilmore D (1990). *Manhood in the making: Cultural concepts of masculinity*. New Haven: Yale University Press.
- Goldscheider F & Goldscheider C (1999). *The changing transition to adulthood: Leaving and returning home*. Thousand Oaks, CA: Sage.
- Grimm SD, Church AT, Katigbak MS, Reyes JAS (1999). Self-described traits, values, and moods associated with individualism and collectivism: Testing I-C theory in an individualistic (U.S.) and a collectivistic (Philippine) culture. *Journal of Cross-Cultural Psychology*, 30, 466-500.
- Hamilton SF & Hamilton MA (2006). School, work, and emerging adulthood. In JJ Arnett & JL Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 257-278). Washington, DC: American Psychological Association.
- Iacovou M (2002). Regional differences in the transition to adulthood, *Annals of the American Association of Political and Social Science*, 580, 40-69.
- Kins E & Beyers W (2010). Failure to launch, failure to achieve criteria for adulthood? *Journal of Adolescent Research*, 20, 1-35.
- Kopala-Sibley DC, Mongrain M, & Zuroff DC (2013). A lifespan perspective on Dependency and Self-Criticism: Age trends from 18 to 59. *Journal of Adult Development*, 20, 126-141
- Kopala-Sibley DC, Zuroff DC, Russell JJ, Moskowitz DS, & Paris J (2012). Understanding heterogeneity in borderline personality disorder: Differences in affective reactivity explained by traits of dependency and self-criticism. *Journal of Abnormal Psychology*, 121, 680-691.
- Martin AJ, Marsh HW, & Debus RL (2003). Self-handicapping and defensive pessimism: A model of self-protection from a longitudinal perspective. *Contemporary Educational Psychology*, 28, 1-36.
- Martin AJ, Marsh HW, & Debus RL (2003). Self-handicapping and defensive pessimism: A model of self-protection from a longitudinal perspective. *Contemporary Educational Psychology*, 28, 1-36.
- Meyers LS, Gamst G, & Guarino A (2006). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage Publishers.
- Milligan GW & Cooper MC (1985). An examination of procedures for determining the number of clusters in a data set. *Psychometrika*, 50, 159-179.
- Nelson LJ (2009). An Examination of Emerging Adulthood in Romanian College Students. *International Journal of Behavioral Development*, 33, 402-411.
- Nelson, LJ & Barry CM (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of Adolescent Research*, 20, 242-262.
- Nelson LJ & Padilla-Walker LM (2013). Flourishing and floundering in emerging-adult college students. *Emerging Adulthood*, 1, 67-78.
- Nosenko E, Arshava I, & Kutovyy K (2014). Personality and information processing: A computer-assisted technique of predicting agent's activity and emotional stability. *European Scientific Journal*, 9, 513-521.
- Nurmi JE (2004). Socialization and self-development: Channeling, selection, adjustment, and reflection. In RM Lerner & L Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 85-124). Hoboken, NJ: Wiley.
- Nurmi JE, Niemivirta M, & Salmela-Aro K (2003). *The satisfaction with educational track scale*. Finland: University of Jyväskylä and University of Helsinki.
- Nurmi JE, Salmela-Aro K, & Haavisto T (1995). The strategy and attribution questionnaire: Psychometric properties. *European Journal of Psychological Assessment*, 1, 108-121.
- Nurmi JE, Salmela-Aro K, & Ruotsalainen H (1994). Cognitive and attributional strategies among

- unemployed young adults -A case of failure-trap strategy. *European Journal of Personality*, 8, 135-148.
- Onatsu-Arvilommi T & Nurmi JE (2000). The role of task-avoidant and task-focused behaviors in the development of reading and mathematical skills during the first school year: A cross-lagged longitudinal study. *Journal of Educational Psychology*, 92, 478-491.
- Paleari FG, Rosnati R, & Lanz M (2002). Il supporto nelle relazioni familiari e il benessere dei giovani adulti: Differenze di prospettiva. *Ricerche di Psicologia*, 25, 39-56.
- Pavot W & Diener E (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3, 137-152.
- Petrogiannis K (2011). Conceptions of the transition to adulthood in a sample of Greek higher education students. *International Journal of Psychology and Psychological Therapy*, 11, 121-137.
- Pintrich PR, Roeser RW, & DeGroot EAM (1994). Classroom and individual differences in early adolescents' motivation and self-regulated learning. *Journal of Early Adolescence*, 14, 139-161.
- Piumatti G, Giannotta F, Roggero A, & Rabaglietti E (2013). How Flexible Job Positions Determine Youth's Adulthood Perception: A Comparison between Italian and Dutch Young Adults. *Psihološka obzorja / Horizons of Psychology*, 22, 39-50.
- Piumatti G, Pipitone L, Di Vita AM, Latina D, & Rabaglietti E (2014). Transition to Adulthood Across Italy: A Comparison Between Northern and Southern Italian Young Adults. *Journal of Adult Development*, 21, 1-12.
- Rew L & Wong YJ (2006). A systematic review of associations among religiosity/ spirituality and adolescent health attitudes and behaviors. *Journal of Adolescent Health*, 38, 433-442.
- Roberts BW, Wood D, & Smith JL (2005). Evaluating five factor theory and social investment perspectives on personality trait development. *Journal of Research in Personality*, 39, 166-184.
- Salmela-Aro K (2009). Personal goals and well-being during critical life transitions: The 4 Cs: Channeling, selection, co-agency and adjustment. *Advances in Life Course Research*, 14, 63-73.
- Salmela-Aro K, Tolvanen A, & Nurmi JE (2009). Achievement strategies during university studies predict early career burnout and engagement. *Journal of Vocational Behavior*, 75, 162-172.
- Salmela-Aro K & Tynkkynen L (2009). Trajectories of life satisfaction across the transition to post-compulsory education: Do adolescents follow different pathways? *Journal of Youth and Adolescence*, 39, 870-881.
- Schwartz, JA, Kaslow NJ, Seeley J & Lewinson P.(2000). Psychological, cognitive and interpersonal correlates of attributional change in adolescents. *Journal of Clinical Child Psychology*, 29, 188-198.
- Shahar G, Kalnitzki E, Shulman S, & Blatt SJ (2006). Personality, motivation, and the construction of goals during the transition to adulthood: A study of Israeli young adults. *Personality and Individual Differences*, 40, 53-63.
- Sirsch U, Dreher E, Mayr E, Willinger U (2009). What Does It Take to Be an Adult in Austria? Views of Adulthood in Austrian Adolescents, Emerging Adults, and Adults. *Journal of Adolescent Research*, 24, 275-292.
- Viglione DJ, Lovette GJ, Gottlieb R, & Friedberg R (1995). Depressive Experiences Questionnaire: An empirical exploration of the underlying theory. *Journal of Personality Assessment*, 65, 91-99.
- Zullig KJ, Ward RM, & Horn T (2006). The association between perceived spirituality, religiosity, and life satisfaction: The mediating role of self-rated health. *Social Indicators Research*, 79, 255-274.

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