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Emerging Adulthood Features and Adjustment: A Person-Centered Approach

Joëlle Lanctot¹ and François Poulin¹

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Abstract

A person-centered approach applied to the Inventory of Dimensions of Emerging Adulthood (IDEA) would provide a holistic outlook on this developmental period. This study aimed to (1) determine the presence of distinct profiles based on the IDEA scales and (2) compare these profiles with regard to sociodemographic indicators, internalizing problems, and problematic alcohol use. Participants ($N = 307$; mean age = 21) filled out the IDEA and questionnaires assessing internalizing problems and problematic alcohol use. Four profiles were identified: *stalled transition* (5%), *moderate transition* (43%), *positive transition* (35%), and *transitional time* (17%). Individuals in the *transitional time* profile reported higher internalizing problems and higher problematic alcohol use than youths assigned to the other profiles. These results suggest that applying a person-centered approach to the IDEA allows for the identification of distinct profiles with regard to the features of emerging adulthood and reported adjustment issues.

Keywords

emerging adulthood, internalizing problems, person-centered approach, alcohol use

Internalizing problems and problematic alcohol use are frequently observed in emerging adulthood (Auerbach & Collins, 2006; Hunt & Eisenberg, 2010; Muthen & Muthen, 2000; Rohde, Lewinsohn, Klein, Seeley, & Gau 2013). Such adjustment problems may be related to the typical features (identity issues) pertaining to this developmental period and the concerns of emerging adults. Arnett (2004) identified the key dimensions or features of emerging adulthood: *identity exploration*, *experimentation/possibilities*, *negativity/instability*, *self-focus*, and *feeling in-between*. A sixth feature, *other-focus*, was added later in contrast to the *self-focus* feature (Reifman, Arnett & Colwell, 2007). Recent studies have reported associations between some of these features and internalizing problems and problematic alcohol use (e.g., Luyckx, De Witte & Goossens, 2011; Smith, Bahar, Cleeland, & Davis, 2014). However, a person-centered approach encompassing these six features would provide a more comprehensive understanding of how emerging adulthood is experienced and of the issues that may be associated with this transition. The current study subscribes to this approach and will attempt to identify profiles of emerging adults with respect to these six features. These profiles will then be compared with regard to the sociodemographic indicators typical of the transition to adulthood as well as to internalizing problems and problematic alcohol use.

of 18–29 (Arnett, 2000). It is considered a distinctive developmental period stemming from demographic changes that have recently taken place in industrialized countries, where the sociocultural context has made such changes possible. For instance, the opportunity to pursue higher education delays the need to take on traditional responsibilities and social roles (i.e., residential independence, involvement in a committed romantic relationship, parenthood, and employment stability). These demographic, cultural, and economic changes postpone the urgency to undertake decisions impacting the course of adult life and offer a context fostering personal development (Arnett, 2007). Emerging adults thus face multiple options and potential pathways, while enjoying a newly acquired freedom. While some youths see this transition as an opportunity to try out new options and focus on self-improvement, others experience this newly acquired abundance of possibilities and the rather sudden absence of structure and stability as a source of uncertainty and anxiety (Arnett, 2004, 2005; Reifman et al., 2007). Some individuals are therefore more likely to experience adjustment

The Concept of Emerging Adulthood

Emerging adulthood is a developmental stage situated between late adolescence and adulthood, spanning the approximate ages

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issues (i.e., confusion, feeling overwhelmed) when transitioning into adulthood.

Arnett (2004) identified the key features of emerging adulthood. Identity exploration refers to the exploration of potential identities in different contexts (e.g., educational, work related, interpersonal, and romantic). Individuals are engaged in a search for their life path, trying out various roles, and eventually clarifying their goals. *Experimentation/possibilities* refers to the idea that emerging adults typically consider life opportunities optimistically. Given the absence of major romantic, family, or work-related commitments, all potential options can be considered and individuals go through this period with a sense of confidence that they will somehow achieve their goals. Emerging adulthood is also a time of *feeling in-between* stages. Indeed, most emerging adults feel that they have grown beyond adolescence without having truly reached adulthood. This can be explained by the fact that emerging adults tend to define adulthood in terms of a given set of criteria (e.g., taking full responsibility for one's actions, financial autonomy), which they typically do not meet before reaching their late 20s. The *negativity/instability* feature refers to the unstable context in which emerging adults often find themselves. The changes experienced in education, work, and romance can make this period an exciting time for some, while representing a struggle for others (Atwood & Scholtz, 2008; Robbins & Wilner, 2001). Indeed, high levels of instability and unpredictability can make the transition to adulthood more challenging and stressful. The *self-focus* feature describes the typical orientation toward the self during this period. Emerging adults are less influenced by the authority figures in their lives, while not yet having to take on the responsibilities and social roles pertaining to adulthood. They are free to make their own decisions without having to take account of any third parties (e.g., romantic partner/child). A sixth feature, called *other-focus* (in contrast to *self-focus*), was subsequently added to this list (Reifman et al., 2007). Emerging adults who identify with this feature are considered to be at a stage where they feel they have great responsibility toward others.

To measure these features, Reifman, Arnett, and Colwell (2007) developed the Inventory of Dimensions of Emerging Adulthood (IDEA). Youths who score higher on some or all of the six aforementioned features of emerging adulthood are considered to be going through a transition period marked by the typical features of emerging adulthood. The IDEA has reportedly been used in over 50 studies worldwide (e.g., Arias & Hernandez, 2007; Negru, 2012; Sirsch, Dreher, Mayr, & Willinger, 2009). These studies share similar results regarding the way youths experience the emerging adulthood stage, perhaps cultural variation in the perception of emerging adulthood is also reported (Crocetti et al., 2015).

Adjustment Issues in Emerging Adulthood

Some youths are less well equipped or less proficient at managing the external stressors pertaining to emerging adulthood and may be more likely to experience negative emotions,

discomfort, and chronic anxiety (Arnett, 2004). Indeed, psychological health remains an important concern in emerging adulthood (Blanco et al., 2008; Schulenberg, Bryant, & O'Malley, 2004). In fact, psychiatric disorders are more common in the emerging adulthood population than in any other adult group (Tanner, 2011). Many studies have shown that, although most individuals manage to successfully navigate the changes and challenges associated with the postadolescent years, this is not an easy task for all, as some individuals struggle to avoid risky pathways and to deal with the instability that is typical of this period (Nelson & Padilla-Walker, 2013). Individuals who tend to flounder during the emerging adulthood period report high levels of depressive symptoms and anxiety as well as substance use disorders (Reinherz, Giaconia, Hauf, Wasserman, & Silverman, 1999; Rohde et al., 2013; Schulenberg & Zarrett, 2006). According to previous studies, internalizing problems in emerging adulthood tend to gradually decrease during the late 20s (Galambos, Barker & Krahn, 2006; Merikangas et al., 2003). Moreover, alcohol use reaches an all-time peak in youths aged 18–25 years—which makes this age-group the most at risk for developing substance use disorders (Auerbach & Collins, 2006; Kong & Bergman, 2010).

Recently, researchers began to examine the links between such adjustment issues and the features of emerging adulthood captured by the IDEA. For instance, *identity exploration* is positively associated with life satisfaction (Negru, 2012), quality of life (Huisman et al., 2012), and self-esteem (Skullborstad, Hayley & Hermann, 2016) and negatively associated with substance use (Allem, Lisha, Soto, Baezconde-Garbanati, & Unger, 2013). However, other studies have reported an association with low psychological well-being (Baggio, Studer, Iglesias, Daepfen, & Gmel, 2016). *Negativity/instability* is positively associated with depressive symptoms (Luyckx et al., 2011) and substance use (Smith et al., 2014) and negatively associated with life satisfaction (Reifman et al., 2007), self-esteem (Luyckx et al., 2011; Skullborstad & Hermann, 2016), and psychological well-being (Baggio et al., 2016). *Experimentation/possibilities* is positively associated with substance use (Hill, Lalji, van Rossum, van der Geest, & Blokland, 2015; Lisha et al., 2014; Little et al., 2013), binge drinking (Allem et al., 2013), and sensation seeking (Hill et al., 2015). However, people who see emerging adulthood as a time of *experimentation/possibilities* also report higher psychological and social well-being (Baggio et al., 2016), life satisfaction (Hill et al., 2015), and self-esteem (Skullborstad et al., 2016). *Feeling in-between* is positively associated with substance use (Smith et al., 2014). *Self-focus* is positively associated with locus of control (Hill et al., 2015), while *other-focus* appears to be negatively related to marijuana use, binge drinking (Allem et al., 2013), and psychopathy (Barlett, 2016). It also appears that youths who strongly identify with the *other-focus* feature tend to consider themselves as adults and have thus moved further along in the transition to adulthood. In sum, several studies documented that features of emerging adulthood are associated with adjustment issues.

The studies reviewed above were based on a variable-centered approach that provided a global picture of the relations between each IDEA feature and some adjustment issues experienced by emerging adults. In contrast to the variable-oriented approach, which investigates the normative paths in a population group, the person-centered approach captures the uniqueness of individuals' experiences by creating distinct profile groups (von Eye & Bogat, 2006). A person-centered approach encompassing all the features of the IDEA could thus help portray the diversity within an emerging adult population by defining distinct subgroups of individuals. Using the person-centered approach could thus provide a more comprehensive understanding of how this transition period may be experienced and the adjustment issues that may be associated with it.

Tagliabue, Crocetti, and Lanz (2016) recently conducted a study involving 1,513 youths aged 19–30 in which a person-centered approach was applied to the IDEA. The authors performed a cluster analysis, submitting the scores obtained on the original five features of the IDEA (the *other-focus* dimension was not included). Six profiles emerged. These profiles captured distinct trends regarding the subjective experience of this transition period. The *negative feelings* profile (12% of the sample) consisted of youths characterized by higher levels of instability. The *positive transition* profile (19%) comprised individuals whose transition patterns were characterized by weak instability levels. The *self-focus* profile (14%) included emerging adults with the lowest level of identity exploration as well as feeling in between, combined with high levels of self-focus. People in the *stall* profile (15%) were characterized by low levels in every dimension defined by Arnett (2004), while people in the *transitional time* profile (24%) were characterized by high levels in every dimensions, although the *self-focus* dimension was at a medium rate. Finally, people in the *lack of possibilities* profile (17%) had the lowest level of possibilities, medium level of instability, and high levels in every other dimensions.

These results highlight the heterogeneity of this population with regard to the extent to which the emerging adulthood features were deemed to describe their experience and confirm that distinct subgroups of individuals can be identified using the IDEA. However, this investigation of profiles of emerging adults should be further pursued for at least three reasons. First, these profiles should be replicated using a slightly different methodology. For instance, a complete version of the IDEA (i.e., including the *other-focus* dimension) should be used in order to draw a more comprehensive picture of emerging adults' experiences. Also, restricting the assessment to emerging adults of the same age would help isolate individual differences from an age effect. Moreover, interviewing emerging adults in a different national context would support the generalization of these profiles. Second, it remains unknown whether these profiles differ with regard to well-known demographic markers of the transition to adulthood. According to Arnett (2014), emerging adulthood is defined primarily by its demographic outline. Variations in socioeconomic status and life events determine how a young individual may experience this

transition (Arnett, 2007). For example, being out of school and having a family to care for with a low-paying job are circumstances that can curb the *self-focus* feature. Thus, an observed delay in taking on the social roles and responsibilities pertaining to adulthood is likely to be associated with the features of emerging adulthood as measured by the IDEA. Third, and most importantly, the potential associations between these profiles and the adjustment issues characterizing this transition period (e.g., internalizing problems and problematic alcohol use) also remain unknown.

The Current Study

The current study had three aims. The first aim was to identify distinct profiles of individuals with regard to the importance assigned to the six features of emerging adulthood among a sample of 21-year-old youths. We hypothesized that this study would identify profiles that were quite analogous to those found by Tagliabue et al. (2016), while some methodological differences in this study (e.g., inclusion of the *other-focus* feature, participants exclusively aged 21, different national context) were likely to bring out some contrasts. For example, it was possible that the addition of the *other-focus* dimension would allow for the identification of a profile in which individuals had moved further along in the transition to adulthood, being less focused on themselves, and bearing greater responsibility for others. Also, because our sample was exclusively composed of 21-year-old youths (middle of emerging adulthood), most participants were expected to identify with several features of the IDEA.

The second aim of the study was to examine whether the observed profiles could be differentiated with regard to a number of sociodemographic indicators pertaining to the transition to adulthood (e.g., educational attainment, financial autonomy, residential independence, involvement in a romantic relationship, and parenthood). We hypothesized that the profiles displaying high scores for the transitional features measured by the IDEA would be more likely to include individuals who found themselves in a life context marked by instability and/or who had not yet taken on the typical roles of adulthood.

The third aim of this study was to investigate whether the observed profiles could be differentiated with regard to internalizing problems and problematic alcohol use. Of the types of internalizing problems likely to affect emerging adults, three were considered here, namely, depressive symptoms, anxiety symptoms, and low self-esteem. Problematic alcohol use was operationalized in terms of three dimensions: intoxication, addiction, and adverse consequences of alcohol use. Based on the literature on the relationship between adjustment issues and the features of the IDEA reviewed earlier, we hypothesized that youths in the profiles displaying high scores for the *negativity/instability*, *experimentation/possibilities*, and *feeling in-between* features would be characterized by more internalizing problems and more problematic alcohol use. Finally, we hypothesized that youths in the profiles displaying high scores

Table 1. Participants' ($N = 307$) Sociodemographic Variables at Age 21.

Variables		Percentage	n
Gender	Women	58.2	187
	Men	41.8	120
Living in parents' home	Yes	72.9	220
	No	27.1	83
Having children	Yes	4.9	15
	No	95.1	289
Romantic relationship	Yes	60.0	184
	No	40.0	123
Annual income	Can\$5,999 or less	12.1	37
	Can\$6,000–\$11,999	27.1	82
	Can\$12,000–\$17,999	24.5	75
	Can\$18,000–\$23,999	14.0	43
	Can\$24,000–\$29,999	10.8	33
	Can\$30,000–\$39,999	7.5	22
Educational attainment	Over Can\$40,000	4.0	9
	No high school diploma	14.7	41
	High school diploma	30.9	97
	Current college attendance	20.3	63
	College diploma	8.1	25
	Current university attendance	25.9	80

for the identity exploration feature would be characterized by more internalizing problems but no problematic use of alcohol.

Method

Participants

Participants were drawn from a longitudinal study that had been ongoing since 2001. This research project initially aggregated 390 sixth-grade students (58% females) from eight different schools in a large school board in the Montreal area. Most were Caucasian (90%), French-speaking, and from families with a gross family income of over Can\$50,000 (68%) in 2001. These participants then took part in a longitudinal follow-up study. The data used for the purposes of the current study were collected in 2010, when the participants were aged 21. Over the course of this longitudinal study, we lost track of some participants who had moved away, while others decided to withdraw from the study. At age 21, 330 participants were contacted and solicited to be part of this data collection. Of these, 307 agreed to participate (61% females) and filled out the self-report questionnaires (80% of the initial sample). Based on the sociodemographic data collected at age 12, the retained participants ($N = 307$) were more likely to be female ($p < .05$) and to come from intact families ($p < .01$) compared to the rest of the sample ($N = 83$). The 307 participants' sociodemographic variables at age 21 are reported in Table 1.

Procedure

Most questionnaires were administered at home by trained research assistants, although approximately 10% of the questionnaires were mailed out. All the data were collected within

a period of approximately 5 weeks during the spring. Willing participants received a Can\$25 financial compensation for their time.

Measures

Features of emerging adulthood. A French version of the 31-item IDEA (Reifman et al., 2007), capturing the features of emerging adulthood, was used. Participants were asked to think about *this time in their lives*, roughly referring to a 5-year period with the present time being right in the middle. They then had to specify the extent to which the items described this time in their lives on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The IDEA includes six scales: *identity exploration* (7 items; $\alpha = .85$; sample item = "Is this period in your life a time of finding out who you are?"), *experimentation/possibilities* (5 items; $\alpha = .83$; sample item = "Is this period in your life a time of many possibilities?"), *feeling in-between* (3 items; $\alpha = .80$; sample item = "Is this period in your life a time of feeling adult in some ways but not others?"), *negativity/instability* (7 items; $\alpha = .82$; sample item = "Is this period in your life a time of confusion?"), *self-focus* (6 items; $\alpha = .70$; sample item = "Is this period in your life a time of personal freedom?"), and *other-focus* (3 items; $\alpha = .73$; sample item = "Is this period in your life a time of settling down?"). The back translation method from English to French and back to English was used (Vallerand, 1989). A global score for each feature was obtained by computing the mean score for all the items belonging to the particular feature. Higher scores for a given feature are considered to indicate a stronger identification with this particular feature.

Depressive symptoms. Depressive symptoms were measured using the French version of the Center for Epidemiologic Studies Depression Scale (Radloff, 1977) translated by Furher and Rouillon (1989). Participants were asked to indicate how often they had displayed specific behaviors, specific thoughts, or experienced specific feelings over the previous week. This instrument comprises 20 items. Sample items include "I felt that everything I did was an effort," "I was happy," and "I felt sad." Responses were coded on a 4-point Likert-type scale ranging from 0 (*rarely or never*, 0–1 day) to 3 (*most of the time*, over the last 5–7 days). A global score was obtained by computing the mean scores for each item. Higher scores indicate higher levels of depressive symptoms. The internal consistency was excellent ($\alpha = .90$).

Social anxiety. Participants filled out the Social Anxiety Scale developed by La Greca and Lopez (1998) translated in French for the purpose of this study using the method from English to French and back to English (Vallerand, 1989). They were asked to indicate how often they experienced each of the 18 items on a 5-point Likert-type scale ranging from 0 (*never*) to 5 (*always*). Sample items include "I only talk to people I know really well," "I worry about what others think of me," and "I

get nervous when I'm around certain people." A global score was obtained by averaging the scores for each item. Higher scores reflect higher levels of social anxiety. The internal consistency was excellent ($\alpha = .91$).

Self-esteem. Participants filled out the Rosenberg Self-Esteem Scale (Rosenberg, 1965), French translation by Vallieres and Vallerand (1990). They were asked to specify the extent to which they agreed with each of the 10 items on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Sample items include "I feel that I have a number of good qualities," "I feel I do not have much to be proud of," and "I certainly feel useless at times." A global score was obtained by averaging the scores for each item. The internal consistency for this sample was very good ($\alpha = .86$). This instrument is considered to be valid for capturing individuals' level of self-esteem (Gotlib, Lewinsohn, Seeley, Rohde, & Redner, 1993; Uys et al., 2009).

Problematic alcohol use. Poulin and Denault's (2012) questionnaire was used to measure problematic alcohol use. Participants were asked to specify whether (yes/no) they had experienced each of the 19 items in the questionnaire. Items captured intoxication, addiction, and adverse consequences of alcohol use. Sample items include "Have you ever been drunk in a public place?" "Have you ever fainted following alcohol use?" and "Have you ever unsuccessfully attempted to stop drinking alcohol?" Positive (yes) responses were summed up to obtain a global score ($\alpha = .88$). Higher scores reflect higher problematic alcohol use.

Sociodemographic variables. Participants were asked to specify both their gender and ethnicity. Educational attainment was captured using a scale ranging from *no high school diploma* to *university attendance*. Gross income was measured on a scale ranging from *Can\$2,000 or less* to *over Can\$100,000*. Financial independence was measured by averaging 3 items ("To what extent are you responsible for the following?: "Earning a living," "Paying the bills (other than rent)," and "Managing your finances"; $\alpha = .67$) rated on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*entirely*). Finally, participants were asked to specify whether (yes/no) they were still living in their parents' home, whether (yes/no) they were involved in a romantic relationship, and whether (yes/no) they had children.

Data analysis strategy. Analyses were conducted in two steps. First, the scores obtained on the six subscales of the IDEA were submitted to a latent profile analysis, allowing us to identify homogenous subgroups of individuals sharing a similar experience of the emerging adulthood period. The following statistical indices were used to choose the best fitting model with regard to the number of profiles within the sample: the log likelihood (LL), the Bayesian information criterion (BIC), the sample-size adjusted Bayesian information criterion (SSA-BIC), the Akaike information criterion (AIC), the Lo-Mendell-Rubin likelihood ratio test (LMR-LRT), and the bootstrap

likelihood ratio test. Furthermore, the entropy was used to assess the overall quality of the final classification. The closer to 1, the better the classification. Second, the profiles were contrasted with regard to sociodemographic variables, internalizing problems, and problematic alcohol use by performing Analysis of variances (ANOVAs) (with Tukey's post hoc tests), except for the categorical variables, with regard to which the profiles were contrasted by conducting χ^2 tests. Correlations among the study variables and descriptive statistics are presented in Table 2.

Results

Latent Profile Analyses

The fit indices for the estimated models involving two to six profiles are displayed in Table 3. The LL values revealed that the model fit tended to drop when assessing the two- and three-profile models and to gradually rise when assessing the four- to six-profile models. The BIC, SSA-BIC, and AIC values for the four- to six-profile models were also lower, pointing to a better fit for these models. Higher posterior probabilities of belonging indicated a better categorization for the four-profile model. The LMR-LRT was used to determine the fit between two models that differed by one profile. In this test, significant p values indicated that the models involving five and six profiles were not significant. Furthermore, the four-profile model appeared to be the most parsimonious; although the number of profiles was lower, this model captured the same results as the six-profile model and each profile included at least 5% of the sample. With regard to theoretical meaningfulness (Milligan & Cooper, 1985), the four-profile model proved to be the most accurate, while lending itself to extensive interpretation. Lastly, the entropy for the four-profile model was adequate. Overall, when balancing the fit indices, parsimony criterion, and theoretical meaningfulness, the four-profile model appeared to be the best model in terms of satisfactorily describing the data patterns while also generating qualitatively different profiles.

The four profiles are described in Table 4 and presented in Figure 1. Profile 1 comprises 5% ($n = 15$) of the sample and includes participants with low scores for all the features of emerging adulthood. When possible, we chose labels that were similar to those used by Tagliabue et al. (2016). Given that a similar profile was found in their study, the qualifier *stalled transition* will be used to refer to this first profile. Profile 2 comprises 43% ($n = 134$) of the sample and includes participants with moderate scores for all the features of emerging adulthood. Accordingly, this profile will be referred to as the *moderate transition* profile. Profile 3 comprises 35% ($n = 107$) of the sample and includes youths who obtained the highest scores for all the features of emerging adulthood. Since one of the profiles obtained by Tagliabue et al. showed similar characteristics, that is, a high score for almost all the features (with the exception of the *self-focus* feature), we will refer to this third profile as the *transitional time* profile. Finally, Profile

Table 2. Descriptive Data and Correlations for the Study Variables.

Study Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Identity exploration	—															
2. Experimentation/possibilities	.46**	—														
3. Feeling in between	.45**	.20**	—													
4. Negativity/instability	.54**	.30**	.31**	—												
5. Self-focus	.43**	.61**	.27**	.29**	—											
6. Other-focus	.35**	.41**	.21**	.23**	.44**	—										
7. Depression	.23**	-.04	.12*	.37**	-.05	-.07	—									
8. Anxiety	.21**	.01	.16**	.30**	-.02	-.02	.46**	—								
9. Self-esteem	-.14*	.12*	-.12*	-.29**	.17**	.10	-.67**	-.49**	—							
10. Problematic alcohol use	.07	.02	.07	.16**	.02	-.06	.30**	.09	-.24**	—						
11. Annual income	-.11	-.10	-.19**	-.12*	-.07	.09	-.14*	-.15**	.11*	.09	—					
12. Financial autonomy	-.07	-.00	-.11	.00	.05	.08	-.12*	-.14*	.06	.12*	.36**	—				
13. Educational attainment	.14*	.16**	.15*	.09	.09	.01	.03	.17**	.03	-.14*	-.37**	-.29**	—			
14. Living in parent's home	-.01	-.01	-.05	.03	.07	.15*	.00	-.06	.03	.11	.17**	.18**	-.14*	—		
15. Romantic relationship	-.17**	-.04	-.10	-.13*	-.06	.12*	-.27**	-.10	.20**	-.03	.11	-.14*	-.09	.14*	—	
16. Having children	.03	.05	.03	-.04	.12*	-.12*	-.02	.06	-.03	.02	-.09	-.10	.23**	-.20**	-.06	—
17. Gender	-.16**	-.10	-.06	-.12*	.01	-.05	-.08	-.18**	.07	.04	.14*	.01	-.09	-.19**	-.13*	.12*
M	2.68	3.31	2.82	2.50	3.17	2.84	28.16	0.78	2.65	3.11	5.90	4.58	3.00	1.27	1.60	1.95
Standard deviation	0.64	0.58	0.76	0.68	0.52	0.73	8.45	0.62	0.45	3.39	2.99	0.63	1.42	0.45	0.49	0.22

Note. $n = 307$.* $p < .05$. ** $p < .01$.

Table 3. Fit Indices for the Latent Profile Analyses.

Profiles	LL	AIC	BIC	SSA-BIC	Entropy	LMR-LRT	BLRT
2	-1,654.88	3,347.75	3,418.62	3,358.36	.74	304.23*	-1,810.78
3	-1,602.36	3,256.72	3,353.70	3,271.24	.82	102.48*	-1,654.88
4	-1,568.05	3,202.10	3,325.20	3,220.53	.80	66.95*	-1,602.36
5	-1,550.34	3,180.69	3,329.89	3,203.03	.80	34.56	-1,568.05
6	-1,531.27	3,156.54	3,331.85	3,182.79	.79	37.22	-1,550.34

Note. LL = log likelihood; AIC = Akaike information criterion; BIC = Bayesian information criterion; SSA-BIC = sample-size adjusted BIC; LMR-LRT = Lo-Mendell-Rubin likelihood ratio test; BLRT = bootstrap likelihood ratio test.

Table 4. Means (and Standard Deviations) for Each Feature of the Inventory of Dimensions of Emerging Adulthood as a Function of the Profiles and ANOVA Results.

Features	Stalled Transition (n = 15)	Moderate Transition (n = 137)	Transitional Time (n = 106)	Positive Transition (n = 50)	F(3,304)	p
Identity exploration	1.86 (0.61) _a	2.39 (0.44) _b	3.26 (0.43) _c	2.50 (0.52) _b	93.11	.000
Experimentation/possibilities	2.35 (0.55) _a	2.95 (0.44) _b	3.70 (0.31) _c	3.77 (0.28) _c	132.47	.000
Negativity/instability	1.69 (0.47) _a	2.29 (0.54) _b	3.10 (0.45) _c	1.99 (0.44) _a	92.02	.000
Self-focus	1.96 (0.37) _a	2.90 (0.33) _b	3.48 (0.35) _c	3.61 (0.25) _c	163.93	.000
Other-focus	1.44 (0.47) _a	2.66 (0.58) _b	3.16 (0.65) _c	3.11 (0.64) _c	42.85	.000
Feeling in between	2.09 (0.67) _a	2.65 (0.69) _b	3.25 (0.61) _c	2.61 (0.82) _{a,b}	24.12	.000

Note. Means with different subscripts within a row are significantly different from one another ($p \leq .001$).

4 comprises 17% ($n = 53$) of the sample and encompasses youths who obtained high scores for the *experimentation/possibilities*, *self-focus*, and *other-focus* features; moderate scores for the identity exploration feature; and lower scores for the *negativity/instability* and *feeling in-between* features. As a similar profile was also found by Tagliabue et al., the label *positive transition* will be used to refer to this profile.

Comparing Profiles With Regard to Sociodemographic Variables

All the profiles were contrasted with regard to sociodemographic variables. The descriptive data are reported in Table 5. A series of χ^2 analyses (successively entering gender, whether residential independency was achieved, whether parenthood was achieved, and whether involvement in a romantic relationship was achieved as dependent variables) did not bring out any significant differences between the profiles. Similarly, a series of ANOVAs (successively entering educational attainment, perceived financial autonomy, and annual income as dependent variables) did not bring out any significant differences between the profiles.

Comparing Profiles With Regard to Internalizing Problems and Problematic Alcohol Use

A series of ANOVAs aiming to contrast the profiles with regard to psychosocial variables brought out significant differences. Results are displayed in Table 6. Post hoc analyses revealed that the participants assigned to the *transitional time* profile exhibited significantly higher depressive symptoms than participants assigned to the *moderate transition* and *positive*

transition profiles. Participants assigned to the *transitional time* and *moderate transition* profiles exhibited higher social anxiety than participants assigned to the *positive transition* and *stalled transition* profiles. Moreover, participants assigned to the *positive transition* profile displayed higher self-esteem than participants assigned to the *moderate* and *transitional time* profiles. Finally, participants assigned to the *transitional time* profile reported higher problematic alcohol use than participants assigned to all the other profiles.

Discussion

The current study aimed to identify homogenous profiles of individuals with regard to the extent to which the features of emerging adulthood were deemed to describe their experience and contrast these profiles regarding a series of transition-into-adulthood indicators and adjustment issues. Latent profile analyses generated four contrasting profiles of emerging adults. These profiles differed with regard to internalizing problems and problematic alcohol use but showed no differences with regard to the transition-into-adulthood indicators. The implications of these results are further discussed below.

Profiles of Emerging Adults

In accordance with our hypothesis, the *stalled transition* profile was the smallest (comprising only 5% of the sample) and encompassed youths who displayed the lowest scores for all the emerging adulthood features, suggesting that they did not see these features as describing their experience. It is possible that these individuals had already gone through this transitional phase of their lives (Goodman, Henderson, Peterson-Badali,

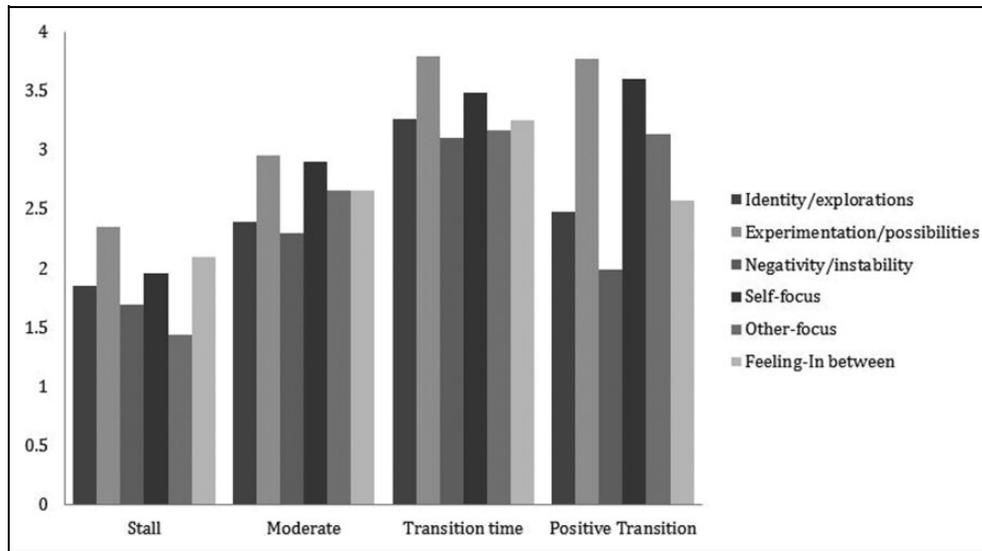


Figure 1. Profiles based on the features of the Inventory of Dimensions of Emerging Adulthood.

Table 5. Descriptive Statistics for Each Sociodemographic Variable as a Function of the Profiles.

Sociodemographic Variable	Stalled Transition	Moderate Transition	Transitional Time	Positive Transition	χ^2	p	
Gender (% women)	39.09	63.63	64.22	53.65	0.95	.28	
Living in parents' home (%)	58.63	78.02	66.08	70.89	1.25	.52	
Having children (%)	13.03	5.30	5.58	0	5.77	.13	
Romantic relationship (%)	58.63	68.18	49.33	65.15	7.14	.07	
					F	p	η_p^2
Educational attainment	2.33 (0.98)	2.92 (1.46)	3.18 (1.42)	3.12 (1.33)	1.96	.12	.019
Annual income	6.00 (3.16)	6.18 (2.93)	5.67 (3.00)	5.39 (2.96)	1.04	.38	.010
Financial autonomy	4.77 (0.64)	4.55 (0.65)	4.60 (0.63)	4.56 (0.59)	1.09	.66	.005

Note. η_p^2 = eta squared.

Table 6. Means (and Standard Deviations) for Each Psychosocial Variable as a Function of the Profiles.

Psychosocial Variables	Stalled Transition	Moderate Transition	Transitional Time	Positive Transition	F (df)	p	η_p^2
Depression	28.33 (7.06) _{a,b}	27.42 (7.85) _a	30.75 (9.71) _b	24.57 (5.51) _a	7.00 (3,304)	.000	.065
Anxiety	0.34 (0.39) _a	0.81 (0.63) _{b,c}	0.90 (0.63) _c	0.57 (0.50) _{a,b}	6.28 (3,302)	.000	.059
Self-esteem	2.61 (0.57) _{a,b}	2.62 (0.47) _a	2.58 (0.47) _a	2.88 (0.19) _b	5.76 (3,303)	.001	.054
Problematic alcohol use	2.33 (1.68) _{a,b}	3.24 (3.39) _{a,b}	3.58 (3.90) _a	1.98 (2.12) _b	2.90 (3,304)	.035	.028

Note. η_p^2 = eta squared; means with different subscripts within a row are significantly different from one another ($p < .05$).

& Goldstein, 2015). The *moderate transition* profile was the largest subgroup and was defined by moderate scores for all the emerging adulthood features, suggesting that nearly half the sample saw these features as moderately describing their experience. It is possible that 21-year-olds find themselves more or less in the middle of this transition and therefore experience it in a moderate way. This corroborates studies showing that emerging adults score higher on the IDEA scales than both high school students and older young adults, with the latter's scores tending to decrease gradually over time (Arnett, 2004; Luyckx et al., 2008; Sirsch et al., 2009). The two remaining profiles, namely, the *positive transition* and

transitional time profiles, showed the highest scores for the *experimentation/possibilities*, *self-focus*, and *other-focus* features. Individuals assigned to the *positive transition* profile exhibited low scores for both the *negativity/instability* and *feeling in-between* features and moderate scores for the *identity exploration* feature. Individuals assigned to the *transitional time* profile appeared to see all the emerging adulthood features as strongly describing their experience. Thus, the two distinct profiles encompassing youths who identified most strongly with the features of emerging adulthood appeared to experience the instability inherent in this transitional period quite differently.

Only one previous study (Tagliabue, Crocetti, & Lanz, 2016) investigated profiles of emerging adulthood based on the features of the IDEA. The results of that study show both similarities and differences with our study. Some profiles identified in the current study also emerged in Tagliabue et al.'s analysis, which explains why we made use of some of their original profile labels. The following profiles can be observed in both studies: (1) a profile displaying low scores for all the features of emerging adulthood, (2) a profile exhibiting low scores for *negativity/instability* combined with high scores for *experimentation/possibilities* and *self-focus*, and (3) a profile displaying high scores for most of the features of emerging adulthood. The *moderate transition* profile, comprising the highest number of participants, was not identified in Tagliabue et al.'s study. This may be due to the age difference of the participants in the two studies. In the current study, all participants were 21 years old, which means that several participants likely found themselves to be halfway through the emerging adulthood period (typically occurring between the ages of 18 and 29; Arnett, 2000) and thus saw the features of the IDEA as describing their experience to a moderate degree. In Tagliabue et al.'s (2016) study, the participants' ages ranged from 19 to 30 years. Therefore, it is not surprising that a similar profile was not identified in their study.

Three profiles that emerged in Tagliabue et al.'s (2016) study were not found in this study: the *negative feeling* profile, characterized by high scores for instability/negativity; the *self-focus* profile, characterized by high scores for self-focus along with the lowest scores for identity exploration and feeling in-between; and the *lack of possibility* profile, characterized by the lowest scores for exploration/possibilities combined with the highest scores for self-focus and feeling in-between and medium scores for negativity/instability. The larger sample size ($N = 1,530$ vs. 307) as well as the variability in the participants' ages (19 to 30 vs. 21) could possibly explain the more diverse patterns found in Tagliabue et al.'s study. Another difference is the inclusion of the *other-focus* feature in the current study. However, contrary to our hypothesis, the addition of this feature did not result in the identification of a group that was further along in the transition to adulthood. Moreover, the differences between the socioeconomic context in Canada and Italy may explain why the *lack of possibility* profile was not replicated in the current study. Indeed, young adults in Italy face high rates of unemployment and precarious job conditions (Crocetti & Tagliabue, 2016). In fact, 40% of 15- to 24-year-olds in Italy were unemployed in 2013, and these rates have continued to rise since then (Italian National Institute of Statistics [ISTAT], 2014). Moreover, the economic crisis of 2008 made it difficult for Italian families to support young adults' tuition fees, accounting for part of the decline in the number of students completing tertiary education programs in recent years (Organisation for Economic Co-operation and Development [OECD], 2014). Thus, differences in access to education and employment between Canada and Italy may have influenced our results, as the Italian participants were less likely to feel that emerging adulthood represented a time of many possibilities. On the other hand, the Canadian participants were

more likely to experience the typical transition described by Arnett, with more young people exhibiting moderate scores for all the features of the IDEA.

Contrasting Profiles With Regard to Sociodemographic and Psychosocial Variables

The profiles were then contrasted with regard to sociodemographic indicators as well as internalizing problems and problematic alcohol use. Contrary to our hypothesis, the profiles did not statistically differ with regard to any of the sociodemographic variables. The descriptive data suggest that individuals in the *stalled transition* profile were less likely to live in their parents' home (58% vs. 72% for the other three profiles) and more likely to have children than individuals in the other three profiles (13% vs. 4%). However, these differences were not significant, possibly due to a lack of statistical power (since the *stalled transition* group, comprising just 5% of the sample, was too small). Other sociodemographic variables that were not investigated in this study, such as Socio-economics status (SES) or parents' education, could help explain the differences observed among individuals with regard to the extent to which they identified with the features of emerging adulthood.

Several significant differences were observed between the profiles regarding both internalizing problems and problematic alcohol use. A number of these differences involved the two subgroups that appeared to identify most strongly with the features of emerging adulthood. Specifically, individuals assigned to the *transitional time* profile reported higher depressive symptoms, higher social anxiety, higher problematic alcohol use, and lower self-esteem than individuals assigned to the *positive transition* profile. Contrary to our hypothesis, high scores for *identity exploration* (e.g., in the *transitional time* profile) appeared to be related to internalizing problems as well as problematic alcohol use. It is very interesting to observe that individuals assigned to both the *positive transition* and *transitional time* profiles exhibited higher scores for the *experimentation/possibilities* feature given that, in the current literature, this feature of emerging adulthood tends to be associated with higher negativity as well as substance abuse (Hill et al., 2015) and some variables related to well-being (Hill et al., 2015; Negru, 2012). The distinct psychosocial characteristics of these two profiles confirm Arnett's (2005) theory proposing that experimentation can lead to substance use for two different reasons. Indeed, emerging adults can try out new experiences such as substance use with a recreational goal or substance use can become a method of self-medication to avoid the anxiety related to the instability of the transition. The well-being of individuals who experiment with substance use as a way of trying out new experiences would not necessarily be negatively affected by this experience. Indeed, the *experimentation/possibilities* feature may be given high ratings when individuals have a hopeful outlook on the future and see themselves to be exploring new opportunities. This could explain why the *positive transition* profile shows high scores for the *experimentation/possibilities* feature along with high self-esteem and low

social anxiety. On the other hand, emerging adults who report substance use as well as low well-being are more likely to use substances for self-medication purposes. This could be the case for the *transitional time* group.

Overall, the results of the current study further highlight the heterogeneous nature of the emerging adulthood period—as each profile depicts a unique combination of the features of the IDEA—and thus provide a deeper understanding of this transitional stage. The current study demonstrates that emerging adults may weakly, moderately, or strongly identify with the features of emerging adulthood. Among those who identify with these features most strongly, some will struggle with adjustment issues during this life transition while others will find a way to thrive. The person-centered approach effectively brought out an overall picture of emerging adulthood, while uncovering different perceptions of the way this transition is experienced. Indeed, the creation of profiles allows for a better understanding of emerging adulthood by highlighting some of the typical patterns that may represent how this transition can affect young adults. Moreover, this approach provides a new outlook on internalizing problems and problematic alcohol use in emerging adulthood by identifying the most affected subgroups of emerging adults. Youths in the profiles exhibiting higher scores for the *negativity/instability*, *experimentation/possibilities*, and *feeling in-between* features were more likely to report internalizing problems and problematic alcohol use, which concur with the results of previous studies (Hill et al., 2015; Luyckx et al., 2011; Smith et al., 2014). Yet, we also observed that, for some youths, higher scores for the *experimentation/possibilities* feature were associated with higher self-esteem and lower social anxiety.

To our knowledge, this is the very first study using a person-centered approach to link profiles based on the features of the IDEA with sociodemographic variables and indicators of internalizing problems and problematic alcohol use. The current study also stands out due to the sociodemographic diversity of its sample. In the current emerging adulthood literature, samples are often exclusively composed of university students. In our case, the participants were initially recruited at age 12 and took part in a longitudinal follow-up study until age 21 (with an 80% retention rate). Differential life trajectories were undertaken by these youths after high school and resulted in heterogeneous occupational statuses among the sample (i.e., 13% having no high school diploma and currently working, 32% having a high school diploma and currently working, 21% currently attending college, 8% having a college diploma and currently working, and 26% currently attending university). Also, most studies using the IDEA have involved samples exhibiting rather wide age ranges (e.g., aged anywhere between 18 and 25 years). In the current study, all the participants were 21 years of age. Given our interest in investigating interindividual differences with regard to the features of the IDEA, we controlled for the effect of age on these features.

Limitations and Future Directions

A first limitation concerns the size of the *stalled transition* profile ($n = 15$; 5% of the sample). Indeed, 5% is often considered

to be the cutoff point in profile analyses. Although the four-profile model appeared to be the most accurate in terms of the statistical indices, entropy, and theoretical meaningfulness, the small size of this group makes the interpretation of the results difficult and limits the conclusions that can be drawn. The profiles observed in the current study need to be replicated with larger samples as well as with culturally diverse samples to ensure that similar profiles hold up in other sociocultural contexts. Second, while the fact that we exclusively investigated emerging adults of the same age (21 years old) is a strength, it can also limit our findings. Indeed, it is possible that the results define a precise but limited reality that does not cover the wide span of how emerging adulthood can be experienced. Third, using a person-centered approach can sometimes lead to an overly elaborate way of representing what is actually a bivariate relation between two variables. Indeed, the *instability/negativity* feature and depressive symptoms are closely correlated, which makes it difficult to identify what variable is responsible for the differences observed between the profiles *transitional time* and *positive transition*. Fourthly, the fact that all the variables examined in this study were measured at a single time point makes it impossible to investigate the directionality of the reported links between adjustment problems and the extent to which the youths assigned importance to the features of the IDEA, as captured by the profiles identified. For instance, are youths who already display depressive symptoms when they enter the period of emerging adulthood more likely to identify strongly with the “negative” features of emerging adulthood? Or is it the other way around, whereby youths’ negative experience of emerging adulthood, as reflected in the IDEA scores, leads to higher levels of depressive symptoms? Longitudinal studies are needed to clarify this question and would also make it possible to investigate interindividual variations in the extent to which youths see the features of the IDEA as describing their own experience over time. Indeed, it would be relevant to study changes over time in the composition of the profiles based the features of the IDEA, as doing so would allow us to test Arnett’s (2007) hypothesis that these features tend to describe the experience of individuals in their early 20s, a phenomenon that subsequently decreases in the late 20s.

Conclusion

The main goal of the current study was to gain a deeper knowledge of the relations between the extent to which youths felt that the typical features of emerging adulthood (as captured by the IDEA) described their experience and some adjustment issues likely to occur during this transitional stage. The use of a person-centered approach allowed for the identification of distinct subgroups of emerging adults with regard to their score patterns relating to the features of the IDEA as well as to internalizing problems and problematic alcohol use. The current study contributes to the emerging adulthood literature by uncovering contrasting profiles that consider the qualitative experience of emerging adulthood as captured by the features of this

transition period proposed by Arnett (2007). These results suggest that the person-centered approach provides a more global perspective of the experience of emerging adulthood (gathered by investigating the extent to which the youths identified with the features of the IDEA) as well as a greater understanding of the features that promote healthy and positive youth development during the postadolescent years.

Authors' Note

This research was conducted as part of J.L.'s undergraduate thesis. This study have been approved by the appropriate institutional research ethics committee. American Psychological Association (APA) human subjects' guidelines were followed in the collection of data. Informed consent was obtained from all individual participants included in the study.

Authors' Contribution

J.L. performed the statistical analysis, interpreted the data, and drafted the manuscript. F.P. conceived of the study, its design, and its coordination; participated in the analysis and interpretation of the data; and helped to draft the manuscript. All authors read and approved the final manuscript.

Declaration of Conflicting Interests

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