

JYX



This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Mannerström, Rasmus; Muotka, Joonas; Salmela-Aro, Katariina

Title: Associations between identity processes and success in developmental tasks during the transition from emerging to young adulthood

Year: 2019

Version: Accepted version (Final draft)

Copyright: © 2019 Taylor & Francis

Rights: In Copyright

Rights url: <http://rightsstatements.org/page/InC/1.0/?language=en>

Please cite the original version:

Mannerström, R., Muotka, J., & Salmela-Aro, K. (2019). Associations between identity processes and success in developmental tasks during the transition from emerging to young adulthood. *Journal of Youth Studies*, 22(9), 1289-1307. <https://doi.org/10.1080/13676261.2019.1571179>

Associations Between Identity Processes and Success in Developmental tasks during the Transition
from Emerging to Young Adulthood

Rasmus Mannerström

Department of Psychology, University of Jyväskylä, Finland

Joona Muotka

Department of Psychology, University of Jyväskylä, Finland

Katariina Salmela-Aro

Department of Education, University of Helsinki, Finland

Author Note

This research was supported by the Academy of Finland research grants 307558, 308351 and 273872 to Katariina Salmela-Aro.

Correspondence concerning this paper should be sent to

Rasmus Mannerström

Department of Psychology

POB 35, FIN-40014, University of Jyväskylä, Finland

Email: rasmus.mannerstrom@helsinki.fi

Abstract

Little is yet known of how personal identity processes of exploration and commitment develop beyond adolescence and how they interact with developmental tasks of young adulthood. Employing the DIDS (The Dimensions of Identity Development Scale; commitment making, identification with commitment, exploration in breadth, exploration in depth and ruminative exploration) in a longitudinal sample of Finnish young adults (measurement at age 24 and 29; $N = 854$, 63% women), the results of this study suggested 1) that identity commitment and exploration levels, in general, decrease over time, 2) that success in developmental tasks but not sex moderate this development, and 3) that among developmental tasks, parenthood is the strongest predictor of changes in identity processes over time. The results support a view of personal identity as a dynamic process moderated by contextual factors beyond adolescence and have practical implications for social security provision in an increasingly precarious labour market. Political decisions that support young adults' trust in the future and a sense of continuity by strengthening different forms of social security are called for. A debate on values related to success is also needed to lessen the emotional costs of uncertainty.

Keywords: Identity development, identity processes, DIDS, developmental tasks, prolonged adolescence

Associations Between Identity Processes and Success in Developmental tasks during
the Transition from Emerging to Young Adulthood

Although Erikson (1950; 1968) viewed identity formation as an open-ended and life-long process merely peaking in meaning and intensity in adolescence, research building on Erikson has conventionally regarded identity as an enclosed and fixed task of adolescence (Marcia, 1993). As Arnett (2014) points out, 60 years of identity research has surprisingly poorly mapped the development and dynamics of identity beyond adolescence and simultaneously been unable to provide conclusive evidence for identity being a normative and exclusive crisis of adolescence. Given especially the vast socio-structural transformations in life path opportunities in western societies in recent decades, as observed in the postponement of traditional transitional events such as entering working life and having children (Arnett, 2006), there is reason to expect fluctuations and uncertainty in identity after adolescence. In this study we examined how identity processes in the domain of general future plans develop over two timepoints, between emerging and young adulthood, and how they are affected by success in four traditional developmental tasks of that time period, that is, leaving the parental home, marriage/cohabitation, becoming a parent and achieving an education-related full-time job.

Identity development as a task of adolescence and a life-long process

Erikson (1950; 1968) considered forming a sense of identity as the key developmental task of adolescence. Formulating future plans and making commitments regarding, for instance, ideals, values and goals, yields purpose and continuity – knowing where you are heading in life. This is critical for entering and coping with adult roles, tasks and responsibilities, that is, social integration and personal well-being throughout life. However, although identity issues are optimally settled already in adolescence, identity is never fully gained or finalized. A sense of identity is an open-ended process dependent on environmental changes and thus demands continuous reclaiming.

The core of identity research building on Erikson's theory ever since has employed the identity status model (Marcia, 1966; 1993). Based on the extent of exploration and commitment in various domains, adolescents are assigned a global identity status – indicating current progress in forming a firm identity. These include *diffusion* (neither exploration nor commitments), *moratorium* (exploration but no commitments yet), *foreclosure* (commitments without prior exploration) and *achievement* (commitments with prior exploration). Identity achieved individuals have generally been considered the most mature on several adjustment and well-being measures (Marcia, 1993). Although the occurrence of successive commitment-exploration cycles (so called MAMA-cycles; moratorium-achievement-moratorium-achievement) have been acknowledged within the identity status paradigm (Stephen, Fraser, & Marcia, 1992), nearly all research has focused solely on adolescence and assumed a rather linear developmental trajectory, with adolescents moving from diffusion towards achievement (see Waterman, 1982 for the Developmental hypothesis).

Only quite recently have studies produced a more diversified picture of identity formation, indicating strong individual differences in development. For instance, a meta-analysis of identity status research by Kroger, Martinussen and Marcia (2010) and a longitudinal study of 12-20-year olds by Meeus, van de Schoot, Keijsers and Branje (2012) found an increase in identity-achieved individuals and a decrease in diffused ones over time. However, while status progression seemed to occur, there was also some degree of regression as well as great stability, meaning no change in status. Besides, although sex differences are rare (Kroger, 1997), specific statuses seem to be related with antecedents such as previous school success, family SES (as in parents' education and occupation) and larger economic circumstances in society (Fadjukoff, 2007; Fadjukoff, Kokko, & Pulkkinen, 2010; Mannerström, Hautamäki, & Leikas, 2016). In the latter case, identity diffusion tends to increase during recession and decrease during economic recovery. Moreover, attention has been drawn to the fact that a sense of identity develops unevenly across different domains and should be studied accordingly (Schwartz, Luyckx, & Crocetti, 2015)

The most recent multidimensional identity models have underscored the iterative nature of identity formation (e.g. Crocetti, Rubini, & Meeus, 2008; Luyckx, Goossens, Soenens, Beyers, & Vansteenkiste, 2005). According to Luyckx's et al. (2006) dual-cycle model, identity consolidation consists of two *formation* (exploration in breadth and commitment making) and two *evaluation* processes (exploration in depth and identification with commitment); that is, different identity options are continuously explored and some commitments made. How strong the commitments grow emotionally or whether they are discarded depends, however, on the outcome of deeper reflection on them. In addition, commitments might be thwarted by a dysfunctional type of brooding over alternatives, called ruminative exploration (Luyckx et al., 2008). Rumination is considered a central challenge for contemporary youth struggling with seemingly endless opportunities of self-realization and labour market uncertainties (Côté, 2006).

A scale developed on the model (The Dimensions of Identity Development Scale [DIDS]: Luyckx et al., 2008) has shown consistent internal and external validity across culturally diverse samples such as American, Belgian-Dutch, Finnish, Georgian, Filipino, American and Turkish youth (Luyckx et al., 2008; Marttinen, Dietrich, & Salmela-Aro, 2016; Pesigan, Luyckx, & Alampay, 2014; Schwartz et al., 2011; Skhirtladze, Javakhishvili, Schwartz, Beyers, & Luyckx, 2016; Umit Morsunbul & Figen Cok, 2014). Despite the development of process-models viewing identity as more or less open-ended, research with these instruments have mostly focused on adolescents or convenience samples (young university students) and relative status changes (Arnett, 2014). For instance, Waterman suggested to examine mean-level changes in the identity processes over time to capture fluctuation in commitment and exploration processes (Waterman, 2015).

To date, only two studies have examined development of identity processes beyond late adolescence, with inconsistent results. In a cross-sectional study of nearly 6000 Belgians aged 14-30 (both students and employed/unemployed; $M_{age} = 17.99$), Luyckx, Duriez, Van Petegem and Beyers (2013) found, in line with the developmental hypothesis, that with higher age commitment

processes increased and exploration processes decreased. They also found that along with age exploration became more ruminative and was increasingly associated with depression, indicating anxiety induced by perceiving oneself as lagging behind societal expectations. In contrast, a cross-sectional study by Mannerström et al. (2016) of 751 Finnish young adults aged between 18 and 29 (both students and employed/unemployed; $M_{\text{age}} = 24.6$) found that while exploration of future plans weakened with higher age, as expected, no accompanying rise in commitment levels was observed. A further novel finding of the study was that nearly 50% of the sample were assigned a diffused status. The results were discussed within a framework of specific socio-cultural factors that discourage firm commitments. However, both studies lacked longitudinal data and neither distinguished between participants in different life situations.

To sum up, identity processes and status development are more context-dependent, diverse, multidimensional and non-linear than previously acknowledged within identity status research. Provided that a sense of identity is dynamically related with new challenges beyond adolescence, identity processes and their relationships with developmental tasks such as family formation and entering working life should be accounted for. To our knowledge, however, no previous study has examined the impact of completing developmental tasks on identity processes in young adulthood.

Developmental tasks of young adulthood and their postponement

Contemporary life course theorists define developmental tasks as culturally and historically set, age-specific transitions that are expected of the majority in society (Elder & Giele, 2009). The five key traditional markers of attaining adulthood have been (1) leaving the parental home (i.e. independent living), (2) finishing formal education, (3) entering working life (i.e. educational attainment and work status), (4) forming a romantic relationship and (5) becoming a parent (Elder & Shanahan, 2007). Achieving developmental tasks indicates compliance with social norms. In other words, developmental tasks function as milestones on a track of social integration

and happiness, generating meaning for the individual by indicating current success and projecting a future horizon. Several studies have shown that achieving developmental tasks (especially career), as compared to still being in the process of attaining them, is related to higher life satisfaction and well-being (e.g. Howard, Galambos, & Krahn, 2010; Schoon, Chen, Kneale, & Jager, 2012; J. E. Schulenberg, Sameroff, & Cicchetti, 2004). Moreover, in terms of personality changes, mature life transitions increase conscientiousness, whereas non-normative life choices strengthen neuroticism (Leikas & Salmela-Aro, 2015).

While these tasks were in mid-20th century ‘completed’ generally around the age of 20, today they are achieved 5-15 years later, if at all. On an individual level, the postponement of developmental tasks has been linked with new life path opportunities and social norms encouraging openness and ‘reflexive life management’, all provided in turn by new technologies and higher living standards (Arnett, 2004; Furlong, Cartmel, & Biggart, 2006). American youth desire freedom to explore their future options much longer and more carefully than previous generations and many consider age 30 as the new ‘deadline’ for career and relationship commitments (Arnett, 2004). Arnett has coined the term *emerging adulthood* to refer to a new developmental life phase roughly between ages 19 and 24, which is marked by adult responsibilities and independence but also an intensified exploration of ideals, roles and possible future commitments. Firm commitments are not established before young adulthood. A qualitative study of Finnish and French young women suggested that traditional commitments are still aspired but not established without a sense of autonomy and certainty (Mary, 2012). In other words, developmental tasks and long-term commitments more generally have changed meaning for social integration and transitional shifts have become somewhat more gradual, de-standardized and interconnected, rather than simultaneous as before (Brückner & Mayer, 2005; Buchmann & Kriesi, 2011).

From a structural viewpoint, in contrast, the prolongation of youth has been seen as a consequence of changes in labour markets, employment, consumption and an intensified

commodification of relationships (Elliott, 2015; Furlong, 2009). For instance, young adults are currently exposed to an increasingly precarious labour market with poorer work conditions and equality in opportunities than before (Côté, 2014; Furlong et al., 2006). Youth engage in higher and longer educational tracks and postpone their marriage and parenthood simply because they lack financial security (Settersten, 2012). Similarly, it is harder than before to pinpoint a clear ending in studies and transition to work-life because moving back-and-forth between studies and work-life is simply necessary. In other words, 'disruptions' in traditional transition patterns are due to restrictions on choice rather than freedom of choice. At the same time, and in addition, youth are faced with a societal spirit of ceaseless re-invention of the self, demanding non-stop self-realization among seemingly endless life path opportunities (Elliott, 2015). As life is increasingly framed as an ongoing project devoid of societal guidance and support, the result is default individualization, characterized by indecision and a loss of agency (Schwartz, Côté, & Arnett, 2005). The risk is higher numbers of marginalized, anxious young adults, who are unable to choose and/or engage satisfactorily in education, work and/or relationships. Hence, to have trust in the future and a willingness to engage, uncertainty and unpredictability must somehow be buffered against. For instance, the emotional costs on the personal level (e.g., lack of confidence in making commitments) of poor employment prospects may be counteracted and personal agency supported by a strong state social security system. Hence, how young adults cope with developmental tasks and whether they experience them as positive or negative challenges depends on the interplay between demands and resources on the personal, social and environmental levels (Grob, 2001). However, sociological life-course research has thus far paid little attention to the interplay between (socio)psychological capacities (e.g., motivation, future plans) and transitional events (Buchmann & Kriesi, 2011).

Case Finland

Finnish youth have with few exceptions followed their western peers in extended transitions (Arnett, 2006). For instance, mean graduation age from tertiary education is at age 27 slightly above OECD average (OECD, 2017). Similarly, Finns get married around age 32 and women receive their first child at age 29, both figures being slightly above the OECD means (OECD, 2016b; OECD, 2016c; Official Statistics of Finland, 2016). Childbirth, in general, has recently been on the agenda in Finland because in 2017 the total fertility rate hit an all-time low (Official Statistics Finland, 2018).

One key factor promoting long transitions in Finland is the extensive financial support provided by the government (e.g. study grant, housing supplements), meaning that considerable social and economic independence from family and societal structures is gained quite early. For instance, this is why Finnish youth (along their Nordic peers) have not followed the international trend of living with parents for an extended time. Instead they move out of home already around the age of 21 (average age 26: Eurostat, 2017). Similarly, Finns do not feel an economic pressure to get married early. Instead one third of Finnish youth aged 20-29 choose to cohabit, considerably more than in other OECD countries (Eurostat, 2015; OECD, 2016a). Overall, a substantial part of Finnish emerging adults take a year or more off after high school to travel, work or pursue projects and dreams (plus compulsory military service for young men), then followed by tertiary education lasting on average 6-7 years (Parker, Thoemmes, Duineveld, & Salmela-Aro, 2015). Due to the gap years, Finns enter tertiary education at age 24, much later than the OECD average (OECD, 2017).

Another factor prolonging the transition to work-life is that the majority of Finnish students work alongside their studies. Mary (2012) has suggested that the traditional study-to-work transition should be relabelled a study-and-work phase in Finland. Students study and work partly because of their wish to explore and gain experiences of adult life and responsibilities but also because of a pressure to improve their future position on an increasingly precarious labor market, marked by uncertainties in achieving education-related work. Namely, although youth

unemployment in Finland is currently EU average, temporary contracts are somewhat more prevalent than elsewhere (Eurostat, 2017). Furthermore, since the global economic recession began in 2008, Finnish youth have been most worried about their own livelihood and future, significantly more than health, loneliness or criminality (Myllyniemi, 2017; Official Statistics of Finland, 2013). Hence, Finns receive a lot of support from society for their autonomy and personal growth, but they also face considerable uncertainties with regard to planning their futures.

Current study

While conventional transitions have been prolonged, they remain important for well-being and continue to be navigated. The present objective was to shed light not only on how identity processes of exploration and commitment develop beyond adolescence but, more importantly, the impact of prolonged transitions on a sense of identity, in this instance the transition from emerging to young adulthood. A further objective was to investigate where Finnish young adults anchor their identity in these circumstances. Moreover, are all transitions equally important for a sense of identity or are some more important than others? To contribute to filling these gaps in literature, we posed three research questions: first (Q1), how do identity processes, as measured by the DIDS (domain of general future plans), evolve during the transition from emerging to young adulthood (between ages 24 and 29)?; second (Q2), is development in identity processes moderated by sex and success in transitional events, such as independent living, cohabitation, achieving education-related work and having children?; and third (Q3), treating identity processes as outcome variables, which developmental task most strongly predicts changes in identity processes between T1 and T2 when controlling for the shared variance of other tasks?

In line with the study of Finnish young adults mentioned earlier, showing no change in commitment levels but less exploration with higher age (Mannerström et al., 2016), we hypothesized that (H1a) commitment processes decrease or stay levelled, (H1b) adaptive exploration processes decrease and (H1c) ruminative exploration decrease or stay levelled between

Time 1 and Time 2 (T1 and T2, respectively). The further rationale for this is based on the observation that having a career is the most important and meaningful transition for young adults, that is, a steady career is aspired before deciding on marriage and children (Arnett, 2014; Mary, 2012). Indeed, occupational identity seems to play the key role in overall identity development in western countries (Kroger & Haslett, 1991; J. Schulenberg, Bachman, Johnston, & O'Malley, 1994). Thus, as youth are approaching the end of their studies and the perceived 'deadline' for self-exploration and developmental tasks, young adults decrease their exploration of current and possible future plans. However, now threatened by poor and uncertain career prospects, they are unable to withdraw from rumination and form firm commitments.

Second, regarding interaction effects between development in identity processes, success in transitional events and sex, we hypothesized that (H2a) having completed a task already before T1 and maintaining it through the study, or alternatively completing one during the study would strengthen commitments and lessen exploration. That is, success in developmental tasks builds certainty, launches the individual towards new opportunities and challenges – the next level, so to speak. In contrast, being unsuccessful in or reverting in developmental during the study period would weaken commitments and increase exploration, especially the ruminative aspect. In other words, the approaching deadline builds pressure to explore options and engage. Further, for the reasons given above, we hypothesized (H2b) the moderator effect to be the strongest in achieving a job, followed by parenthood, cohabitation/marriage and independent living. The latter two were considered less important for future plans at this stage because Finnish emerging adults move away from home before occupational issues become critical and relationships are more casual/non-committed although living together with a partner is very common (Arnett, 2006). We did not expect sex differences in development (H2c).

Finally, for the same reasons, we hypothesized that (H3) achieving education-related full-time employment would be the strongest predictor of changes in identity processes between T1

and T2, that is, stronger commitments and weaker exploration, followed by parenthood, cohabitation and independent living.

Methods

Participants

The data was drawn from two waves of the longitudinal Finnish Educational Transitions-study (FinEdu), mapping well-being and engagement trajectories during important transitions in adolescence and young adulthood. All adolescents aged 15 and 17 in a mid-sized town in central Finland were sampled in 2004 and followed over a period of 13 years. The data can thus be considered fairly representative of Finns born in 1988. In this study T1 consisted of 1096 participants (61% women, $M_{\text{age}} = 24$) of which 854 (i.e. 78% of the T1 sample) continued to T2 (63% women, $M_{\text{age}} = 29$). The data collection was administered through postal or online questionnaires and so the participants gave their informed consent at each wave separately. The overall majority were Finnish-speaking. Figure 1 shows participants' occupation at T1 and T2. At age 24 nearly half of the sample were primarily studying (48%) while around one third indicated they were working (15%) or both studying and working (17%). Only 6% were unemployed. At age 29 the tables had turned. Around half of the sample were now primarily working (53%), one sixth were studying and working (15%) and only one tenth were studying. Unemployment had risen only slightly by T2 (8%) and individuals taking care of children at home had risen from 1% to 11% between T1 and T2.

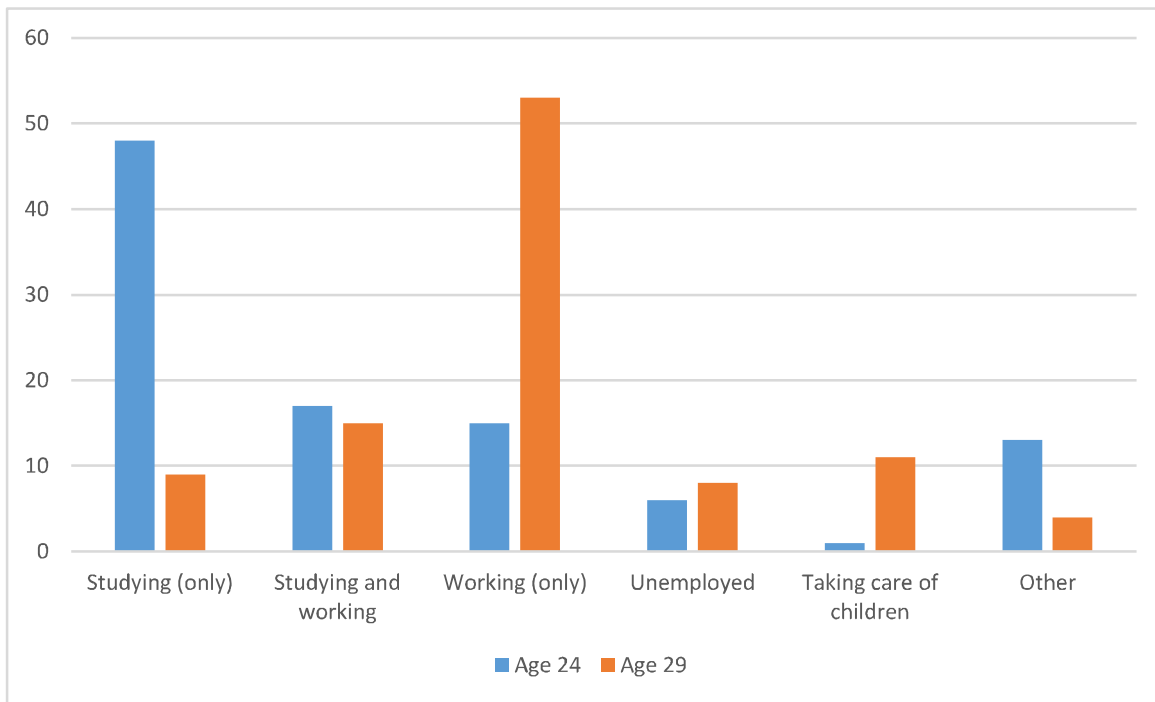


Figure 1. Occupation at T1 ($N = 1096$) and T2 ($N = 854$).

In terms of attrition analyses, men ($\chi^2 = 10.87, p < .005, C = .10$) and unemployed ($\chi^2 = 14.84, p < .001, C = .12$) participants were more likely to drop out between T1 and T2. Significant differences between those who completed both measurements and those who dropped out was not found on the other variables. In our main analyses we used only participants that took part in both measurements ($N = 854$).

Measures

Identity. Identity formation and evaluation processes were measured with the Finnish 11-item short-version of the DIDS (Marttinen et al., 2016; see Luyckx et al., 2008 for full version). The subscales cover *commitment making* (e.g. ‘I have decided on the direction I’m going to follow in my life’), *identification with commitment* (‘My future plans give me self-confidence’), *exploration in breadth* (‘I think actively about different directions I might take in my life’), *exploration in depth* (‘I think about the future plans I already made’) and *ruminative exploration* (‘I worry about what I want to do with my future’). The statements are evaluated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach alphas for commitment making, identification with commitment, exploration in breadth, exploration in depth and ruminative

exploration were .88, .89, .75, .90 and .85 at T1. The equivalents for T2 were .90, .85, .77, .78 and .85.

Developmental tasks of young adulthood. We measured success in four developmental tasks (Elder & Shanahan, 2007): (1) Not living with parents anymore (i.e. independent living), (2) cohabitation/marriage, (3) parenthood and (4) entering working life. The fifth task, finishing education, was not included due to the fuzzy and changed nature of studying and working. Instead we defined the fourth task as education-related full-time employment, in this way marking an end to studies, at least for the time being and moving on to an intended occupational path. Figure 2 shows the percentage of participants having completed developmental tasks at T1 and T2.

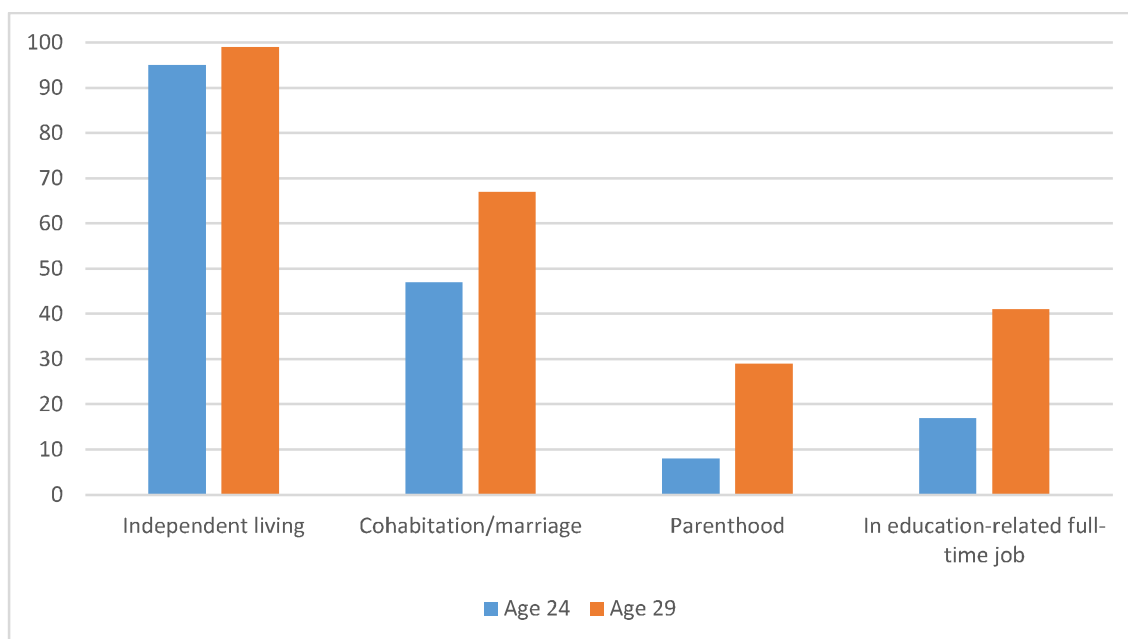


Figure 2. Developmental tasks completed at T1 ($N = 1096$) and T2 ($N = 854$).

Data analyses

For Q1 (how mean levels evolve between ages 24 and 29) and Q2 (are mean levels moderated by sex and success in transitional events), a one-way repeated measures ANOVA was conducted. This analysis showed, first, whether significant changes occurred in the mean levels of the identity processes between ages 24 and 29, and, second, if such changes were affected by a categorical variable, in this case success (or reversion) in developmental tasks. Means and standard

deviations are presented in Table 1. For H2a (i.e., having completed a task before T1 and maintaining it through the study period, or alternatively completing one during the study period would strengthen commitments and lessen exploration) and H2b (i.e., achieving a job would have the strongest moderator effect, followed by parenthood, cohabitation/marriage and independent living), the categorical variable was formed according to (1) having completed the task already at T1 (and through T2), (2) having achieved the task by T2, (3) having reverted in the task by T2 and (4) having achieved the task at neither T1 nor T2. Parenthood, however, consisted of only three levels as only one participant had lost a child (i.e. category 3).

Table 1

Mean levels of the identity processes at T1 and T2

Means	<i>N</i>	T1	T2
Commitment making	792	3.69 (.88)	3.61 (.98)
Identification with commitment	790	3.51 (.93)	3.39 (.94)
Exploration in breadth	788	3.90 (.77)	3.70 (.86)
Exploration in depth	792	2.81 (1.18)	2.75 (1.06)
Ruminative exploration	792	2.66 (1.03)	2.62 (1.06)

Note. T1 = age 24; T2 = age 29.

To examine Q3, that is, which developmental task most strongly predicts changes in identity processes, we formed four separate variables with values 0 or 1, indicating non-progress or progress in each developmental task between T1 and T2. We then regressed (linear regression) these four variables together with the T1 level of each identity process, one at a time, on the T2 levels of the identity processes. This way we were able to simultaneously control for the initial levels of the identity processes (to see if significant changes occurred) and for the shared variance of the different developmental tasks (to see which tasks had a unique effect on changes in identity processes).

Prior to our main analyses, we checked for possible univariate outliers with ± 3 SDs and multivariate outliers with large Mahalanobis distances ($p \leq .001$) on the identity dimensions. Ten multivariate outliers from the T1 data and 4 from the T2 data were removed. Table 2 shows the zero-order correlations between the identity processes. In this study, exploration in depth was more

of the reconsideration-of-commitment subtype, associated more strongly with ruminative exploration than exploration in breadth (Mannerström et al., 2016; Zimmerman, Lannegrand-Willems, Safont-Mottay, & Cannard, 2013).

Table 2

Zero-order correlations between the identity dimensions at T1 and T2 (N = 854)

Dimensions	1	2	3	4	5
1. Commitment making	–				
2. Identification with commitment	.66***/.61***	–			
3. Exploration in breadth	.43***/.35***	.44***/.39***	–		
4. Exploration in depth	-.39***/-.44***	-.26***/-.28***	-.02/-.03	–	
5. Ruminative exploration	-.61***/-.62***	-.48***/-.50***	-.13***/-.14***	.65***/.68***	–

Note. T1/T2. *** = $p < .000$; ** = $p < .01$; * = $p < .05$.

Results

Figure 2 reveals that despite the declared prolongation in transitions, young adults are still largely performing the conventional tasks expected of them by society. That is, between ages 24 and 29 cohabitation and marriage increases from 47% to 67%, parenthood from 8% to 29% and education-related full-time employment from 17% to 41%. As expected, there is hardly any increase in independent living because nearly all respondents (95%) had moved away from their parent's house already at age 24.

Regarding our first question (Q1), how identity processes measured by the DIDS evolve during the transition from emerging to young adulthood, the results partly supported our hypotheses. In line with our first hypothesis (H1a: commitment processes decrease or stay levelled), main effects were found for commitment making ($F(1, 791) = 4.773, p < .05$; Wilks' $\Lambda = .994$; partial eta squared = .01) and identification with commitment ($F(1, 789) = 9.693, p > .01$; Wilks' $\Lambda = .998$; partial eta squared = .01). Both showed a slight but significant decrease over time. However, both were significantly moderated by success in developmental tasks (see below). Hypothesis H1b (i.e., adaptive exploration processes decrease) was only partially supported, since, as expected, exploration in breadth decreased significantly over time ($F(1, 787) = 37.528, p > .00$; Wilks' $\Lambda = .954$; partial eta squared = .05); however, exploration in depth did not change ($F(1, 791) = 1.739, p$

> .05; Wilks' $\Lambda = .998$; partial eta squared = .00). Further, and as expected, (H1c: ruminative exploration decreases or stays levelled), no main effect was found for ruminative exploration over time; however, there was a significant interaction effect ($F(1, 791) = 1.598, p > .05$; Wilks' $\Lambda = .998$; partial eta squared = .00).

In terms of interaction effects (Q2), hypothesis H2a (i.e., having completed a task before T1 and maintaining it throughout the study period, or alternatively completing one during the study would strengthen commitments and lessen exploration) received partial support. First, parenthood moderated commitment making ($F(2, 781) = 3.103, p > .05$; Wilks' $\Lambda = .992$; partial eta squared = .01). As expected, participants who were parents (T1: $M=3.80, SD=.73$, T2: $M=3.87, SD=.84$; $t(174)=.83, p>.05$) or became parents (T1: $M=4.00, SD=.75$; T2: $M=3.98, SD=.83$; $t(54)=.13, p>.05$) between age 24 and 29 did not decrease their commitment making. Second, identification with commitment ($F(3, 786) = 2.616, p > .05$; Wilks' $\Lambda = .999$; partial eta squared = .01) was in turn moderated by employment situation. In line with expectations, those in education-related full-time employment at both measurement points did not decrease their level of identification with commitment (T1: $M=3.35, SD=.98$; T2: $M=3.52, SD=.91$; $t(80)=1.14, p>.05$). Unexpectedly, however, neither did those participants who lost their education-related full-time employment between T1 and T2 (T1: $M=3.53, SD=.93$; T2: $M=3.49, SD=.86$; $t(49)=.22, p>.05$). Thus, surprisingly, also those participants who attained education-related full-time employment between T1 and T2 decreased their identification with commitment. Third, employment situation moderated also ruminative exploration ($F(2, 781) = 3.103, p > .05$; Wilks' $\Lambda = .998$; partial eta squared = .01). As hypothesized, ruminative exploration increased significantly for those who lacked education-related full-time employment at both measurement points (T1: $M=2.76, SD=1.02$; T2: $M=2.81, SD=1.06$; $t(411)=.69, p<.05$). Unexpectedly, however, participants who lost their education-related full-time employment during the study decreased their ruminative exploration significantly (T1: $M=2.63, SD=1.07$; T2: $M=2.22, SD=.98$; $t(51)=2.04, p<.05$).

Hence, hypothesis H2b (i.e., achieving a job would have the strongest moderator effect, followed by parenthood, cohabitation/marriage and independent living) was supported, as identity processes were significantly moderated by success in developmental tasks such as parenthood and employment. Overall, however, interaction effects were few, weak and in some cases in the opposite direction than hypothesized. That is, completed tasks did not come with firmer future plans in every case or less exploration for that matter. On the contrary, in some instances commitments weakened. Similarly, losing a job or abandoning a job already achieved surprisingly decreased rumination in this sample. Regarding possible sex differences in development (H2c), none were found, as we hypothesized.

Finally, hypothesis H3 (i.e., education-related full-time employment would prove the strongest predictor of changes in identity processes between T1 and T2, followed by parenthood, cohabitation and independent living) was partially supported. Table 3 shows regression coefficients for tasks completed and change in identity processes between T1 and T2. Attaining education-related full-time employment between age 24 and 29 was significantly related with less ruminative and in-depth exploration, as we expected. Likewise, becoming a parent was related with less ruminative exploration as well as an increase in both commitment processes. Unexpectedly, however, education-related full-time employment was not uniquely associated with stronger commitment in future plans. Neither was any of the developmental tasks uniquely related with exploration in breadth. Hence, becoming a parent made the strongest unique contribution to identity processes, not achieving a job.

Table 3

Regression coefficients between completion of developmental tasks and identity processes at T2, after controlling for identity levels at T1 ($N = 779$)

Variable	Commitment making	Identification with commitment	Exploration in breadth	Exploration in depth	Ruminative exploration
Independent living	.07	.03	-.01	-.03	.00
Cohabitation/marriage	.02	.02	.05	.01	-.03
Parenthood	.13***	.10**	-.01	-.05	-.10***
Education-related full-time job	.05	.05	.01	-.09**	-.09**
Adjusted R^2	.18	.16	.12	.12	.26

Note. *** = $p < .000$; ** = $p < .01$; * = $p < .05$.

Discussion

Theory suggests that identity formation is nowadays a more precarious task than before (e.g. Bauman, 2007; Elliott, 2015). A labour market in flux and a market capitalism building on continuous self-expression and -reinvention complicate decision-making and postpone conventional transitions into adulthood. This study found 1) that identity commitment and exploration levels, in general, decrease over time, 2) that success in developmental tasks but not sex moderate this development, and 3) that parenthood and not achieving an education-related full-time job, is the strongest predictor of changes in identity exploration and commitment levels over time. The results support a view of personal identity as a continuously evolving, dynamic process dependent on contextual factors. More interestingly, however, the findings question the common notion that entering a desired career track would strengthen one's identity, as manifested in commitments and confidence in one's future plans.

Our results on how the mean levels of the identity processes developed between age 24 and 29 in our sample (Q1) supported previous findings among Finnish young adults (Mannerström et al., 2016) but conflicted with both those obtained among their Belgian peers (Luyckx et al., 2013) and the developmental hypothesis in general (Waterman, 1982). That is, in this study, exploration of alternatives and engagement in future plans weakened simultaneously with higher age, whereas ruminative exploration stayed levelled. First, assuming that exploration of and engagement in future plans peak during mid-twenties and then decrease, these findings are in line with the so called MAMA cycles, that is, successive commitment-exploration cycles (Stephen et al., 1992). The results of the present study question the previously commonly held notion in the identity status literature of identity achievement as a fixed and stable end-point (e.g., Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993) and instead support Erikson's (1958) original idea that a sense of identity is never finalized but must instead, when facing new challenges, be reconstructed time and time again. These results underscore recent results and theory that identity is

a dynamic, non-linear process (see Schwartz et al., 2015 for a discussion), and hence the crucial importance of studying mean-level changes in identity processes beyond adolescence (Arnett, 2014; Waterman, 2015). For instance, whether these young adults grow uncertain about their future plans before eventually re-strengthening their commitments or exploring new options remains.

Interestingly, our finding also contradicts the developmental hypothesis in identity research (Waterman, 1982) and Arnett's (2004) theory of emerging adulthood as a new interphase of intense identity exploration that takes place before young adults settle for commitments at an age closer to 30. Indeed, our respondents completed developmental tasks (although very slowly) during this time frame and lowered their exploration of future alternatives, as expected, but simultaneously their future commitments weakened and ruminative exploration stayed levelled. Although young adults could be expected to be super engaged in their future plans at this stage, having finished school, entered working life and perhaps embarked on planning a family, this 'depressive' trend is not surprising in light of theory on changing working conditions and poor employment prospects. Côté (2014) argued that young adults are increasingly demoralised and anxious about their future due to the systemic proletarianization of youth as a population. They have poorer earning power and education-to-work prospects than the previous generation (see also Furlong, 2009 for a discussion on class). This does not, however, explain why the same developmental trends were not recorded among Belgian young adults (Luyckx et al., 2013). Perhaps this difference in future certainty is related to the fact that Finnish young adults are more often on temporary job contracts than their peers abroad (Eurostat, 2017), as working alongside studying is the norm and transitions are in general more frequently postponed than elsewhere (OECD, 2016a; OECD, 2017; Parker et al., 2015). For instance, in the present Finnish sample a markedly low proportion (41%) had achieved education-related full-time employment at age 29. However, the Belgian study did not give information on the completion of developmental tasks, and thus this question also remains.

Second, this study contributed to the literature on identity process-development over time (Mannerström et al., 2016) by examining how success in transitional events moderated development in identity processes (Q2). The present results were only partially supported and rather surprising. Namely, although parenthood and employment to some extent protected against a decrease in future certainty (e.g., unemployment increased ruminative exploration), as hypothesized, commitments and confidence in future plans did not grow stronger. On the contrary, gaining or losing a job had some counterintuitive consequences. That is, attaining education-related full-time employment was associated with less identification with commitment, whereas losing a job was associated with less ruminative exploration. The latter observation might be explained by the fact that, by age 29, among those who lost or quit their education-related full-time job between the measurement points, most were either taking care of their children at home, had become private entrepreneurs or had started studying again. Only 8% indicated they were unemployed at T2. Hence, job loss was not involuntary but due to new self-determined projects, goals and aspirations, thus lessening rumination.

In contrast, the finding that identification with commitment (i.e., confidence in one's future plans) weakened despite the attainment of education-related full-time employment is very interesting for several reasons. First, it challenges the commonly held view of occupational achievement as the dominant component driving overall identity development (Kroger & Haslett, 1991; J. Schulenberg et al., 1994). In other words, attaining education-related full-time employment should strengthen one's sense of identity, not weaken it. Further, this result does not mesh with previous findings suggesting that attaining developmental tasks is linked with well-being and life satisfaction (Howard et al., 2010; Schoon et al., 2012; J. E. Schulenberg et al., 2004), especially since identification with commitment has been the strongest predictor of well-being (Mannerström et al., 2016; see Schwartz et al., 2015 for a discussion). This would suggest that the respondents in this study either grew more dissatisfied with their life (despite attaining education-related full-time

employment) or that their subjective standards had changed. The latter interpretation would be in line with studies suggesting that once young adults enter working life and are confronted with its (sometimes unexpected) realities they readjust optimally by downgrading their future aspirations (e.g., Tomasik, Hardy, Haase, & Heckhausen, 2009). This tendency might be heightened in the context of a labour market characterized by increased uncertainty, as mentioned above. To summarize, although young adults complete their most desired transition (Arnett, 2014; Mary, 2012) and achieve their target career position (full-time), which appears to be an increasingly difficult prospect (Côté, 2014), they grow disillusioned about future employment and experience loss of confidence.

An additional factor contributing to lower identification with commitment (despite education-related full-time employment) might be the current (hegemonic) notions of flexibility and continuous change (Bauman, 2007). As Elliott (2015) states, achieving a stable identity was a project of the past. In the current cultural climate of what has been termed the *new individualism*, freedom and autonomy are validated through a perpetual re-invention of the self, manifested in shallow and short-term engagements (work, relationships, hobbies etc.). That is, seemingly endless life path opportunities demand self-realization, but ambivalently, without the establishment of firm commitments. Although a strong desire to form commitments might exist, one is encouraged to continuously question the meaningfulness of one's (occupational) choices, perhaps also reflected in this study in the fact that ruminative exploration did not decrease across the whole sample. In other words, as soon as (or although) a desired position or objective is achieved, one becomes dissatisfied, starts disengaging from it and looking for options. In any case, it is obvious from these results that how young adults cope with developmental tasks depends on the dynamics of demands and resources on all three levels – personal, social and environmental (Grob, 2001).

Finally, regarding our third research question on which developmental task most strongly predicted changes in identity processes (Q3), the results partially supported our hypothesis.

Namely, although both parenthood and employment predicted identity, as expected, parenthood was the stronger of the two and only parenthood was associated with the commitment processes. In other words, contrary to previous results on the centrality of occupational achievement for a sense of identity (Kroger & Haslett, 1991; J. Schulenberg et al., 1994), these results suggest that parenthood is more important for a sense of identity (in the domain of *general future plans*) than work. Interestingly, this result held for both men and women. The further finding that cohabitation/marriage had no unique effect on identity might also be due to the above-mentioned reasons, namely, the greater flux and shallowness experienced in relationships and other domains of life than earlier (Arnett, 2004; Elliott, 2015). Hence, as a final achievement (in contrast to relationships, career and housing), parenthood perhaps currently offers Finnish men and women valuable stability and meaning, an anchoring point for a sense of identity in what is otherwise an unstable and unpredictable environment for young adults (Côté, 2014). On the other hand, being able to live with ruminative exploration and seek meaning, commitment and happiness elsewhere (parenthood, work-and-study, short contract work) than in full-time career employment could be viewed as a very healthy, practical, response to labour-market uncertainties in the new knowledge economy.

This study has its limitations. First, although the initial sample was reasonably representative, the attrition analyses showed men and unemployed persons to be somewhat underrepresented at T2. However, because the differences between men and women were non-significant in all analyses, the slight decrease in the male sample is unlikely to have altered the results. Without the attrition in unemployed respondents, ruminative exploration might perhaps have been stronger (and strengthened), because it was high among this group at T1, as noted in the results section. Second, given that identity interacts dynamically with contextual factors, these results cannot be generalized to young adults in other cultures or generations with dissimilar societal expectations, life path opportunities or challenges. In other words, altering some component

in the cultural context would produce different development in identity processes. Third, the self-reported pencil-and-paper type of research method leaves the subjective meaning attached to broad concepts like *future plans* open to speculation. For instance, we do not know if one participant thinks more of occupational issues and another one of family issues. Similarly, increased/decreased levels of identity processes are open to speculation. That is, we do not know whether decreased levels of, say, commitment making, between age 24 and 29 mean greater uncertainty in future plans or indicate a shift in how the respondents perceive their situation and the meaning of future commitments. Perhaps nearly thirty-year-olds do not think of their future plans in terms of certainty, as they did five years earlier, because they have already made some choices. At age 24, the context is different; planning for the future is likely to be much more central. In other words, commitment-making at age 29 might be weaker when measured but *subjectively* on the same level, or just different due to a recalibration of meaning and context.

Based on the results, we suggest that future studies include interviews with the participants. Better triangulation of results is achieved when the subjective meanings attached to identity process-development, especially the meaning of lowered identification with commitment, are also accounted for. Second, we recommend that future research examine identity process development with finer distinctions between individuals in different life situations. For instance, type of work or occupational track and length of studies might affect identity processes differently. Third, and for the same reasons, more than two measurement points are recommended. This would allow a more nuanced picture and interpretation of different factors inflicting on identity processes and tracking of MAMA cycles.

Finally, due to the limitations of the study the present results allow only cautious policy recommendations. First, recent studies suggest that youth have poorer and more uncertain work prospects than previous generations (Côté, 2014). Given that a sense of identity is essential for well-being, and our current results suggest that young adults grow more doubtful about themselves

during the transition to working life, political decisions should aim at stabilizing labour markets and improving working conditions, thereby improving predictability and prospects of employment. This would reduce stress in young adults by strengthening their confidence in financial security and planning for the future, possibly also increasing their willingness to start families (Settersten, 2012). Alternatively, young adults's trust in the future and sense of continuity could be strengthened by further improving different forms of social security, for instance, through universal income. This could also help detach identity from the work sphere. Second, but more importantly, we urge policy-makers in welfare states like Finland to at least engage in a thorough debate on the effects on success and happiness of the changes currently taking place in values and norms. To us, it seems that personal happiness is nowadays linked primarily with success in working life, meaning having a successful career. To be able to succeed in this task one needs to flexibly jump not just between jobs, but between different ideals, goals and careers, an imperative which seems to have profound emotional costs.

Conclusion

Conditions for decision-making and long-term engagement in young adulthood and beyond have in recent decades changed radically, as manifested in the postponement of transitional events (Arnett, 2004). This has consequences for forming a sense of identity, as it means greater uncertainty and recurrent phases of exploration. This study examined (1) development in identity processes between two timepoints, at ages 24 and 29, in a Finnish sample of emerging and young adults, (2) how success in developmental tasks moderate development in identity processes; and (3) which developmental task most strongly predicts changes in identity processes. The results suggested that identity commitment and exploration processes either decrease or stay levelled over time. Second, success in developmental tasks such as employment and parenthood protect against growing future uncertainty, but only in some cases and not in others. Surprisingly, attaining a desired full-time job was accompanied by weaker identification with commitment, perhaps because

current and future aspirations are continuously being readjusted or new ones set. Third, and relatedly, perhaps because of a cultural context exhibiting greater flux than before, becoming a parent seems to support a sense of identity more than achieving an education-related full-time job. This longitudinal study of the identity processes of emerging and young adults underscores the importance of examining these processes by tracking their mean-levels and supports the view of identity as open-ended and always context-dependent, as reported elsewhere in the research literature.

References

- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.
- Arnett, J. J. (2006). Emerging adulthood: Understanding the new way of coming of age. In J. J. Arnett, & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 3-19). Washington, DC: APA.
- Arnett, J. J. (2014). Identity development from adolescence to emerging adulthood: What we know and (especially) don't know. In K. C. McLean, & M. U. Syed (Eds.), *The Oxford Handbook of Identity Development* (pp. 53-64). Oxford: Oxford University Press.
- Bauman, Z. (2007). *Liquid times: Living in an age of uncertainty*. Cambridge: Polity Press.
- Brückner, H., & Mayer, K. U. (2005). De-standardization of the life course: What it might mean? And if it means anything, whether it actually took place? *Advances in Life Course Research, 9*, 27-53.
- Buchmann, M. C., & Kriesi, I. (2011). Transition to adulthood in Europe. *Annual Review of Sociology, 37*, 481-503.
- Côté, J. E. (2014). Towards a new political economy of youth. *Journal of Youth Studies, 17*(4), 527-543.
- Côté, J. E. (2006). Emerging adulthood as an institutionalized moratorium: Risks and benefits to identity formation. In J. J. Arnett, & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 85-116). DC: American Psychological Association.
- doi:10.1037/11381-004

- Crocetti, E., Rubini, M., & Meeus, W. H. J. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence*, 31(2), 207-222. doi:10.1016/j.adolescence.2007.09.002
- Elder, G. H., & Giele, J. Z. (2009). *The craft of life course research*. New York, NY: Guilford Press.
- Elder, G. H., & Shanahan, M. J. (Eds.). (2007). *The life course and human development*. New York: Wiley.
- Elliott, A. (2015). *Identity troubles: An introduction*. Abingdon, Oxon: Routledge.
- Erikson, E. (1950). *Childhood and society*. New York: Norton.
- Erikson, E. (1958). *Young man luther: A study in psychoanalysis and history*. New York: Norton.
- Erikson, E. (1968). *Identity: Youth and crisis* (2. print. ed.). New York: Norton.
- Eurostat. (2015). Marriages and births in finland. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Marriages_and_births_in_Finland#Cohabitation_has_become_more_common
- Eurostat. (2017). Youth. Retrieved from <http://ec.europa.eu/eurostat/web/youth/data/eu-dashboard>
- Fadjukoff, P. (2007). *Identity formation in adulthood*. Jyväskylä: University of Jyväskylä.
- Fadjukoff, P., Kokko, K., & Pulkkinen, L. (2010). Changing economic conditions and identity formation in adulthood. *European Psychologist*, 15(4), 293-303.

- Furlong, A. (2009). Revisiting transitional metaphors: reproducing social inequalities under the conditions of late modernity. *Journal of Education and Work, 22*(5), 343-353.
- Furlong, A., Cartmel, F., & Biggart, A. (2006). Choice biographies and transitional linearity: re-conceptualising modern youth transitions. *Papers: Revista De Sociologia, (79)*, 225-239.
- Grob, A. (2001). Youth to adulthood across cultures, transition from. In N. J. Smelser, & P. B. Baltes (Eds.), *International encyclopedia of the social & behavioral sciences* (pp. 16678–16682). Oxford: Elsevier.
- Howard, A. L., Galambos, N. L., & Krahn, H. J. (2010). Paths to success in young adulthood from mental health and life transitions in emerging adulthood. *International Journal of Behavioral Development, 34*(6), 538-546.
- Kroger, J. (1997). Gender and identity: The intersection of structure, content, and context. *Sex Roles, 36*(11-12), 747-770.
- Kroger, J., & Haslett, S. J. (1991). A comparison of ego identity status transition pathways and change rates across five identity domains. *International Journal of Aging and Human Development, 32*(4), 303-330.
- Kroger, J., Martinussen, M., & Marcia, J. E. (2010). Identity status change during adolescence and young adulthood: A meta-analysis. *Journal of Adolescence, 33*(5), 683-698.
doi:10.1016/j.adolescence.2009.11.002
- Leikas, S., & Salmela-Aro, K. (2015). Personality trait changes among young Finns: The role of life events and transitions. *Journal of Personality, 83*(1), 117-126.

- Luyckx, K., Goossens, L., Soenens, B., Beyers, W., & Vansteenkiste, M. (2005). Identity statuses based upon four rather than two identity dimensions: Extending and refining Marcia's paradigm. *Journal of Youth and Adolescence*, *34*(6), 605-618.
- Luyckx, K., Goossens, L., Soenens, B., & Beyers, W. (2006). Unpacking commitment and exploration: Preliminary validation of an integrative model of late adolescent identity formation. *Journal of Adolescence*, *29*(3), 361-378. doi:10.1016/j.adolescence.2005.03.008
- Luyckx, K., Klimstra, T. A., Duriez, B., Van Petegem, S., & Beyers, W. (2013). Personal identity processes from adolescence through the late 20s: Age trends, functionality, and depressive symptoms. *Social Development*, *22*(4), 701-721.
- Luyckx, K., Schwartz, S. J., Berzonsky, M. D., Soenens, B., Vansteenkiste, M., Smits, I., & Goossens, L. (2008). Capturing ruminative exploration: Extending the four-dimensional model of identity formation in late adolescence. *Journal of Research in Personality*, *42*(1), 58-82. doi:10.1016/j.jrp.2007.04.004
- Mannerström, R., Hautamäki, A., & Leikas, S. (2016). Identity status among young adults: Validation of the Dimensions of Identity Development Scale (DIDS) in a Finnish sample. *Nordic Psychology*, *69*(3), 195-213.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, *3*(5), 551-558. doi:10.1037/h0023281
- Marcia, J. E. (1993). The ego identity status approach to ego identity. In J. E. Marcia, A. S. Waterman, D. R. Matteson, S. L. Archer & J. L. Orlofsky (Eds.), *Ego identity: A handbook for psychosocial research* (pp. 1-21). New York: Springer-Verlag.

Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993). *Ego identity: A handbook for psychosocial research*. New York: Springer.

Marttinen, E., Dietrich, J., & Salmela-Aro, K. (2016). Dark shadows of rumination: Finnish young adults' identity profiles, personal goals and concerns. *Journal of Adolescence*, *47*, 185-196. doi:10.1016/j.adolescence.2015.10.024

Mary, A. (2012). *The illusion of the prolongation of youth-transition to adulthood among Finnish and French female university students* Doctoral dissertation, University of Tampere.

Meeus, W. H. J., van de Schoot, R., Keijsers, L., & Branje, S. (2012). Identity statuses as developmental trajectories: A five-wave longitudinal study in early-to-middle and middle-to-late adolescents. *Journal of Youth and Adolescence*, *41*(8), 1008-1021. doi:10.1007/s10964-011-9730-y

Myllyniemi, M. (2017). *Katse tulevaisuudessa. nuorisobarometri 2016 [eyes on the future. youth barometer 2016]*. Grano Oy.

OECD. (2016a). Cohabitation rate and prevalence of other forms of partnership. Retrieved from https://www.oecd.org/els/family/SF_3-3-Cohabitation-forms-partnership.pdf

OECD. (2016b). Marriage and divorce rates. Retrieved from https://www.oecd.org/els/family/SF_3_1_Marriage_and_divorce_rates.pdf

OECD. (2016c). Society at a glance. Retrieved from http://www.oecd-ilibrary.org/social-issues-migration-health/society-at-a-glance-2016/the-average-mean-age-of-women-at-first-birth-has-risen-by-almost-three-years-in-the-last-two-decades_soc_glance-2016-graph37-en

OECD. (2017). Education at a glance. Retrieved from www.oecd.org/education/education-at-a-glance-19991487.htm

Official Statistics Finland. (2018). Births. Retrieved from http://www.stat.fi/til/synt/2017/synt_2017_2018-04-27_tie_001_en.html

Official Statistics of Finland. (2013). Quality of work life [e-publication]. Retrieved from http://www.stat.fi/til/tyoolot/2013/tyoolot_2013_2014-11-26_tie_001_en.html

Official Statistics of Finland. (2016). Changes in marital status [e-publication]. Retrieved from http://www.stat.fi/til/ssaaty/2016/ssaaty_2016_2017-04-20_tie_001_en.html

Parker, P. D., Thoemmes, F., Duineveld, J. J., & Salmela-Aro, K. (2015). I wish I had (not) taken a gap-year? The psychological and attainment outcomes of different post-school pathways. *Developmental Psychology, 51*(3), 323.

Pesigan, I. J. A., Luyckx, K., & Alampay, L. P. (2014). Brief report: Identity processes in Filipino late adolescents and young adults: Parental influences and mental health outcomes. *Journal of Adolescence, 37*(5), 599-604.

Schoon, I., Chen, M., Kneale, D., & Jager, J. (2012). Becoming adults in Britain: lifestyles and wellbeing in times of social change. *Longitudinal and Life Course Studies, 3*(2), 173-189.

Schulenberg, J. E., Sameroff, A. J., & Cicchetti, D. (2004). The transition to adulthood as a critical juncture in the course of psychopathology and mental health. *Development and Psychopathology, 16*(4), 799-806.

Schulenberg, J., Bachman, J. G., Johnston, L. D., & O'Malley, P. M. (1994). American adolescents' views on family and work: Historical trends from 1976-1992. In P. Noack, M. Hofer & J.

Youniss (Eds.), *Psychological responses to social change: Human development in changing environments* (pp. 37-64). Berlin: Walter de Gruyter.

Schwartz, S. J., Beyers, W., Luyckx, K., Soenens, B., Zamboanga, B. L., Forthun, L. F., . . .

Waterman, A. S. (2011). Examining the light and dark sides of emergent adult's identity: A study of identity status differences in positive and negative psychosocial functioning. *Journal of Youth and Adolescence*, *40*(7), 839-859.

Schwartz, S. J., Côté, J. E., & Arnett, J. J. (2005). Identity and Agency in Emerging Adulthood.

Youth & Society, *37*(2), 201-229. doi:10.1177/0044118X05275965

Schwartz, S. J., Luyckx, K., & Crocetti, E. (2015). *What have we learned since Schwartz (2001)?:*

A reappraisal of the field of identity development. In K. C. McLean, & M. U. Syed (Eds.), *The Oxford Handbook of Identity Development* (pp. 539-561). Oxford: Oxford University Press.

Settersten, R. A. J. (2012). The contemporary context of young adulthood in the USA: From

demography to development, from private troubles to public issues. In A. Booth, S. L. Brown, N. S. Landale, W. D. Manning & S. M. McHale (Eds.), *Early adulthood in a family context* (pp. 3-26). New York: Springer.

Skhirtladze, N., Javakhishvili, N., Schwartz, S. J., Beyers, W., & Luyckx, K. (2016). Identity

processes and statuses in post-Soviet Georgia: Exploration processes operate differently. *Journal of Adolescence*, *47*, 197-209. doi:10.1016/j.adolescence.2015.08.006

Stephen, J., Fraser, E., & Marcia, J. E. (1992). Moratorium-achievement (Mama) cycles in lifespan

identity development: Value orientations and reasoning system correlates. *Journal of Adolescence*, *15*(3), 283-300.

- Tomasik, M. J., Hardy, S., Haase, C. M., & Heckhausen, J. (2009). Adaptive adjustment of vocational aspirations among German youths during the transition from school to work. *Journal of Vocational Behavior, 74*(1), 38-46.
- Umit Morsunbul, & Figen Cok. (2014). The Adaptation of the Dimensions of Identity Development Scale into Turkish [Kimlik Gelisiminin Boyutlari Ölçegi'nin Türkçeye uyarlanması]. *Dusunen Adam, 27*(1), 6.
- Waterman, A. S. (1982). Identity development from adolescence to adulthood: An extension of theory and a review of research. *Developmental Psychology, 18*(3), 341.
- Waterman, A. S. (2015). What does It mean to engage in identity exploration and to hold identity commitments? A methodological critique of multidimensional measures for the study of identity processes. *Identity, 15*(4), 309-349. doi:10.1080/15283488.2015.1089403
- Zimmerman, G., Lannegrand-Willems, L., Safont-Mottay, C., & Cannard, C. (2013). Testing new identity models and processes in French-speaking adolescents and emerging adult students. *Journal of Youth and Adolescence, 44*(1), 127-141.