

# Personal Goals During Emerging Adulthood

## A 10-Year Follow Up

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To examine (a) how young adults' personal goals change as they progress from emerging to young adulthood in their university studies and immediately after and (b) the extent to which such changes are associated with the normative transitions and the life events they experience and their age, 297 university students completed the revised Personal Project Analysis and a life-event questionnaire five times over 10 years. The changes in young adults' personal goals reflected changing developmental tasks, role transitions, and life situations: They disengaged from goals related to education, friends, and traveling and engaged in goals related to work, family, and health. The older the participants, the more family- and work-related goals and the fewer friend-related goals they reported. The results showed further that the more family-related goals they had, the earlier they married, started to cohabit, and had children. The earlier they had graduated and found permanent jobs, the more their education-related goals decelerated.

**Keywords:** *personal goals; emerging adulthood; life events; university studies; latent growth curve modeling*

Life-span theories on motivation assume that the demands, challenges, and opportunities people experience at a particular stage of their lives channel the kinds of personal goals they construct (Little, Salmela-Aro, & Phillips, 2007; Nurmi, 1991, 1992); that personal goals play an important role in the ways in which people direct their own development (Brandstätter, 1984; Heckhausen & Tomasik, 2002; Nurmi, 1993); and that people adjust their

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personal goals on the basis of previous developmental transitions and life events (Brandtstädter & Renner, 1990; Heckhausen, Wrosch, & Fleeson, 2001; Salmela-Aro & Nurmi, 1997). Although there is some cross-sectional research on age differences in personal goals (Cross & Markus, 1991; Nurmi, 1992, 2004; Riediger, Freund, & Baltes, 2005) and on how people adjust their goals when approaching different developmental deadlines (Heckhausen et al., 2001; Wrosch & Heckhausen, 1999), only a few longitudinal studies have examined the relationships between personal goals, age-graded developmental tasks, and role transitions (Nurmi & Salmela-Aro, 2002; Roberts, O'Donnell, & Robins, 2004; Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2001; Sheldon, 2005). In an attempt to supply this deficiency, this study was designed to examine how young people's personal goals change during a 10-year period of emerging to young adulthood, while and directly after they are engaged in university studies; whether such goals predict their subsequent role transitions and life events; and to what extent they adjust their goals on account of the life transitions they experience.

## **Life-Span Development and Emerging Adulthood**

According to the life-span theory, individuals experience different developmental environments depending on their age. These age-graded environments have been conceptualized in many different ways, such as developmental tasks (Erikson, 1959; Havighurst, 1948; Oerter, 1986), role transitions (Elder, 1985), constraints (Neugarten, Moore, & Lowe, 1965; Settersten & Hagestad, 1996), and institutional tracks (Mayer, 1986). The reason that these kinds of age-related normative and institutional structures are important is that they include a variety of demands, challenges, and opportunities for individual action, creating predictable, socially recognized road maps for human lives (Hagestad & Neugarten, 1985).

The third decade of life is a period during which individuals are faced with more transitions and life decisions than at any other stage of life (Caspi, 2002; Grob, Krings, & Bangerter, 2001). These include those related to the transition from education to work, starting a career, initiating an intimate relationship, and starting a family (Caspi, 2002; Shanahan, 2000). It has also been found that people perceive these transitions and role changes as important markers of the transition to adulthood (Hogan & Astone, 1986). Many of these transitions take several years to complete and are made up of many successive stages. For example, a career development trajectory typically includes a

complex set of decisions concerning schooling, education, and career (e.g., Nurmi & Salmela-Aro, 2002). Another typical feature of age-graded environments is that the transitions associated with different domains of life interact with each other (Roisman, Masten, Douglas Coatsworth, & Tellegen, 2004). For example, educational and career transitions may have consequences for the timing of interpersonal transitions, such as bringing a child into the family.

On the basis of the life-span theory, it might be assumed that age affects the urgency of the normative tasks faced by young people (Heckhausen, 1999): As older individuals are closer to the deadlines set for major developmental tasks, they might be assumed to feel more pressure to take these tasks seriously into account when thinking about their future. According to Heckhausen and Tomasik (2002), with increasing proximity to normative deadlines, individuals feel pressured to invest more effort into attaining certain developmental goals.

Emerging adulthood is proposed as a new conception of development for the period from the late teens through the 20s with a focus on ages 18 to 25 (Arnett, 2000, 2004). These are the years of identity explorations, self-focus, possibilities, feeling in-between, and instability (Arnett, 2004). Tanner (2006) proposed recentering as the process during which emerging adults make the transition from dependent adolescents to independent young adults. At the end of this phase, transition to young adulthood takes place. The most central feature of emerging adulthood is that it is a time when young people explore possibilities for their lives in a variety of areas, especially love and work (Arnett, 2004). Roisman et al. (2004) presented evidence that the developmental tasks of emerging adults include both salient (i.e., friendship, academic, conduct) and emerging (i.e., occupational and romantic) developmental tasks. At the end of this period, most people have made their life choices in terms of love, partnership, and family (Erikson, 1968; Havighurst, 1948; Levinson, 1978). However, both length of education and settling down to parenthood have become extended in recent decades (Arnett, 2000).

This longitudinal study focuses on participants from emerging to young adulthood who are progressing through a particular educational transition (i.e., university studies) during the third decade of their lives. Simultaneously, the majority are also on the way to working life. Besides educational and occupational transitions, they are experiencing other age-graded role transitions, such as building up an intimate relationship and founding a family.

## Life-Span Model of Motivation

Nurmi (2004) recently described young people's socialization and self-development in terms of four key mechanisms: First, young people grow up in changing environments that channel their developmental trajectories. A variety of sociocultural factors such as cultural beliefs, institutional structures, and historical events define an "opportunity space" that affects young people's motivation, thinking, and behavior. Second, young people are not passive targets of environmental influences; rather, they select their developmental environments and future life paths (Brandtstädter, 1984). Many psychological factors, such as personal goals, life planning, decision making, and commitments, are responsible for this mechanism (see also Arnett, 2004). Third, as a consequence of this selection process, young people end up facing certain role transitions and also receive feedback about their successes and failures in dealing with these. This feedback on developmental outcomes requires them to adjust their goals, plans, and thinking to successfully cope with the future challenges of their developmental trajectories (see also Tanner, 2006). Finally, after receiving information about the outcomes of their efforts, and ending up in a particular life situation and social position, they typically reflect on a variety of issues concerning themselves and their lives, with the aim of building up a coherent personal identity.

Three processes described in this model of socialization (i.e., channeling, selection, and adjustment) are closely related to individuals' motivation (see also Nurmi, 2004; Nurmi & Salmela-Aro, 1997). First, the age-graded environments people face during a particular stage of their lives play an important role in channeling the kinds of personal goals people construct (Cantor et al., 1987; Nurmi, 1989, 1991). Previous studies comparing different age groups have shown that individual goals differ and that these differences reflect the developmental tasks, opportunities, and role transitions typical of a particular age group (Cross & Markus, 1991; Nurmi, 1992). For example, when adolescents and young adults are asked about their personal goals, their answers typically focus on future education, occupation, family, leisure activities, and self-related topics (Lanz, Rosnati, Marta, & Scabini, 2001; Nurmi, 1991). When people move from young to middle adulthood, they typically report goals related to their children's lives, property, and travel, besides those related to occupation and working life (Cross & Markus, 1991; Nurmi, 1992).

Second, an individual's personal goals might be assumed to play an important role in the ways in which people select different directions for

their future lives (Baltes, 1997; Nurmi, 1993; Salmela-Aro, 2001). By comparing their individual motivations to the opportunities that are available, people set personal goals that satisfy their individual needs and provide a basis for their behavior (Nurmi, 1991). For example, Nurmi, Salmela-Aro, and Koivisto (2002) found that the more young adults emphasized the importance of work-related goals, the more likely they were to find work that was commensurate with their education and the less likely they were to be unemployed after graduation. Similar results have also been found in interpersonal life domains (Salmela-Aro & Nurmi, 1997).

Third, because the demands, challenges, and opportunities people experience change due to their earlier decisions, commitments, and related role transitions, people have to adjust their personal goals to deal with changing life situations (see also Brandstädter & Renner, 1990; Heckhausen, 1999). A few previous studies have shown that people continuously adjust their personal goals to cope with changing environments. For example, Salmela-Aro and Nurmi (1997) found that the life situation of young adults, such as being married and having children, predicted their subsequent family-related goals. Moreover, Salmela-Aro, Nurmi, Saisto, and Halmesmäki (2000) showed that women who were facing the transition to parenthood reconstructed their goals to match the specific stages of this transition.

Although a few age-group comparisons (Cross & Markus, 1991; Nurmi, 1992) and short-term longitudinal studies (Heckhausen et al., 2001; Nurmi & Salmela-Aro, 2002; Salmela-Aro et al., 2000; Wrosch & Heckhausen, 1999) have examined the channeling, selection, and adjustment of personal goals in the context of different role transitions, no studies have attempted to examine individuals' personal goals over a longer time period. This study attempted this by following emerging to young adulthood personal goals over a 10-year period. Personal goals were measured by the Personal Projects Analysis method (Little, 1983).

Although the lives of Finnish youth resemble those of young adults in many other Western countries, a few special features need to be addressed here. First, one typical feature is that educational transitions take place relatively late in Finland. For example, the median age for starting university studies in Finland is 21. The average length of time for the completion of studies at university is 7.5 years (University Statistics, 2003). This means that students can be nearly 30 years old at graduation. In Finland, university studies are tuition-free, but students must pass an entrance examination, which eliminates about three fourths of all applicants. As in many other Western countries, young people marry and have their first child

relatively late. For example, the median age for having one's first child is 27.7 years for females and 29.6 for males, and the age of marrying for the first time is 29.1 for females and 31.3 for males (Statistics, 2003). Marriage, however, is often preceded by a period of cohabitation.

## Aims

This study investigated the following research questions:

1. To what extent do the age-graded developmental tasks and role transitions typical of emerging and young adulthood channel the kinds of personal goals young people construct during this period of life? For example, do the changes in personal goals reflect the fact that young people are approaching the deadlines for two major developmental tasks of young adulthood, that is, moving to working life and founding a family?
2. To what extent is the biological age of young people reflected in their personal goals? It was assumed that, because they are closer to critical deadlines for transition to the major developmental tasks of young adulthood (work and family life), older participants would report personal goals relating to this transition more frequently than younger participants would (Heckhausen et al., 2001; Wrosch & Heckhausen, 1999).
3. Do young people's personal goals direct their subsequent life-span development? In other words, to what extent are young adults' personal goals during the period of their university studies associated with the kinds of role transitions and life events (forming a family, having children, graduation, or entrance into employment) they face later on?
4. To what extent do emerging adults adjust their personal goals as a consequence of facing certain life transitions and making related commitments, such as forming a family and having children, graduation, or entrance into employment? It was assumed that experiencing a particular transition would be associated with an increase in the extent of young adults' personal goals related to that particular life domain (Roisman et al., 2004; Salmela-Aro & Nurmi, 1997).

## Method

### Participants and Procedure

This study is part of the ongoing Helsinki Longitudinal Student Study (HELS Study). The participants were 297 undergraduates (78 men, 219 women) of various subjects (biology, geography, economics, English, Finnish, French, history, psychology, and sociology) at the University of Helsinki, whose

ages at the time of first contact ranged from 18 to 28 years old ( $M = 20.61$ ,  $SD = 1.80$ ). Because we were interested in the transition from emerging adulthood to young adulthood, seven participants in the original sample ( $N = 304$ ) who were age 30 or older were excluded from the analyses. The sample was relatively representative of the university student population in Finland in terms of ethnicity and socioeconomic status. Women were over-represented in the study because they make up the majority of students in the humanities and social sciences, from where most of the participants were drawn.

The participants were measured at five time points:

1. A total of 297 undergraduates were first investigated at the beginning of their first autumn term (the 1st study year). All the students who were participating in the introductory courses given in the nine subjects, and who were present in class during the day of the study, were furnished with preliminary information about the study and asked if they would consent to participate. None of them refused. Next, they were asked to fill out a revised Personal Project Analysis inventory (PPA; Little, 1983; Salmela-Aro & Nurmi, 1996), completed in one class period.
2. Two years after they had first been measured at Time 1, the participants in the original sample were sent a letter inviting them to participate in the study, together with the revised PPA and life-event questionnaire (Salmela-Aro & Nurmi, 1992). Those who did not respond were again contacted by telephone. This time, 263 students (66 men, 197 women) returned the questionnaire (retention rate = 89%).
3. Four and a half years after Time 1, the participants in the original sample were again sent a letter inviting them to participate in the study, together with the PPA and life-event questionnaire. The same procedure as at Time 2 was followed. This time, 243 students (62 men, 181 women) returned the questionnaire (retention rate = 82%).
4. Eight and a half years after Time 1, the participants in the original sample were again sent a letter inviting them to participate in the study, together with the PPA and life-event questionnaire. Again, the same procedure as at Time 2 was followed. This time, 249 students (64 men, 185 women) returned the questionnaire (retention rate = 84%).
5. Ten and a half years after Time 1, the participants in the original sample were again sent a letter inviting them to participate in the study, together with the PPA and life-event questionnaire. Again, the same procedure as at Time 2 was followed. This time, 228 students (60 men, 168 women) returned the questionnaire (retention rate = 77%).

We compared those participants who dropped out of the study at a particular measurement point to those who did not drop out. The results

showed that those participants who had dropped out before Time 2 showed less progress in their studies during their first 2 university years ( $M = 21.22$ ,  $SD = 10.68$ ) than those who continued to participate [ $M = 26.42$ ,  $SD = 11.59$ ;  $t(297) = -3.04$ ,  $p < .01$ ]. The results further showed that those who had dropped out before Time 3 showed less progress in their studies during their 3rd and 4th university years ( $M = 16.30$ ,  $SD = 12.20$ ) than those who continued to participate [ $M = 22.85$ ,  $SD = 14.11$ ;  $t(297) = -3.35$ ,  $p < .001$ ].

## Measures

*The Personal Project Analysis.* Personal goals were assessed by means of the revised version of Little's (1983) PPA. They were first asked to describe three of their current personal goals/projects in response to the following instruction: "People have many kinds of issues and goals that they think about, hope for, and try to accomplish. Consider the personal goals/projects you have in your life at the moment. These goals/projects may be related to any life domain, such as education, work, family, or self-related issues." They were given three numbered lines for their written responses.

*Content analysis of the PPA.* Each goal/project mentioned by a participant (up to three) was first classified by two assessors, working independently, who placed it in one of 13 categories on the basis of content. The categories were similar to those most frequently used in earlier studies (Cantor, Norem, Niedenthal, Langston, & Brower, 1991; Little, 1989; Salmela-Aro & Nurmi, 1997): education ("to pass my exam tomorrow"), friendship ("spend time with friends"), travel ("see the world"), work ("to determine career options"), health ("hope I will remain healthy"), children ("become pregnant"), family ("to take care of my spousal relationship"), wealth ("to buy a new car"), self ("to struggle with myself"), lifestyle ("manage my time"), housing ("to buy an apartment"), daily life ("organize my room"), and hobbies ("to go to play soccer"). Content analysis reliabilities as measured by the  $\kappa$  were .97, .94, .94, .94, and .92 for the five measurements, respectively. On the basis of the content analysis of up to three goals, scores measuring the total number of the personal goals situated in a particular content category were calculated for each person.

*Background.* At Time 1, background information on age, gender, marital status, number of children, and study subject was gathered from the participants.

*Life events.* To examine some possible life events participants experienced during the study period, they were asked the following question, at Times 2, 3, 4, and 5: "Have any of the following four life events happened to you since the time of the last measurement?" The life events were as follows: (a) cohabitation or marriage, (b) the birth of a child, (c) graduation from the university, and (d) employment in a full-time job that is commensurate with one's own education. They answered 1 if the life event had happened to them and 0 if it had not happened to them.

Based on the life-event questionnaire and the background questionnaire, we calculated the following four new scores for each of the measurements for (a) change in marital status (from single to cohabitation or marriage), (b) change in parental status (from childlessness to parenthood), (c) graduation from the university, and (d) change in occupational status (from student to full-time employment). In award of these scores, the participants received at each measurement point a score of 0 if this life event had not yet happened to them and 1 if it had happened to them for the first time (Marini, 1987).

The final scores for the timing of change in marital status, the timing of change in parental status, and the timing of graduation from the university were created as follows: Those participants who had experienced a particular life event (e.g., who were already married or cohabitating at the time of the first measurement) received a score of 1 for this life event. Those who had faced the life event between Time 1 and Time 2 were scored as 2. Those who had faced the life event between Time 2 and Time 3 were scored as 3. Those who had faced the life event between Time 3 and Time 4 were scored as 4. Those who had faced the life event between Time 4 and Time 5 were scored as 5.

The results for the timing of change in marital status showed that at Time 1, 56 of the participants were either cohabiting or married; at Time 2, 33 additional participants were cohabiting or married; at Time 3, 37 additional participants were cohabiting or married; and at Time 4, 24 additional participants were cohabiting or married. At Time 5, 16 additional participants were cohabiting or married.

The results for the timing of change in parental status showed that at Time 1, 7 participants had children; between Times 1 and 2, 8 additional participants had children; between Times 2 and 3, 15 additional participants had children; between Times 3 and 4, 32 additional participants had children; and between Times 4 and 5, 16 additional participants had children.

The results for the timing of graduation from the university showed that at Time 1, no participants had graduated; between Times 1 and 2, 4 participants had graduated; between Times 2 and 3, 19 additional

participants had graduated; between Times 3 and 4, 77 additional participants had graduated; and between Times 4 and 5, 30 additional participants had graduated.

The results for the change in occupational status were measured dichotomously as follows: Participants who at Time 5 had both graduated from the university and were in full-time employment received a score of 1, and others received a score of 0. At Time 5, 101 participants had both graduated from the university and were in full-time employment.

## Analysis Strategy

The research questions were examined by latent growth curve modeling (LGM; Duncan, Duncan, Strycker, Li, & Alpert, 1999) for categorical variables using the Mplus statistical package (Version 4.2; Muthén & Muthén, 1998-2006). This methodology enables the investigation of the average changes in a particular categorical variable over time, as well as interindividual differences in the initial level and trend components (Muthén & Khoo, 1998). In other words, both the mean and covariance structures are modeled in the same analysis.

In the LGM, several growth factors, such as level (intercept), linear slope, and quadratic slope, are modeled. The level factor is a constant for any given individual across time; therefore, the factor loadings of observed measures are set at 1 for each wave. The linear slope factor, in turn, describes the rate of linear growth. Consequently, factor loadings for the linear slope are fixed at the specific values that correspond to a linear time scale (e.g., 0, 1, 2, 3, . . . ,  $t$ ). The quadratic factor adds a quadratic growth component (e.g., 0, 1, 4, . . . ,  $t^2$ ) to the model.

The statistical analyses were performed in five steps. First, to investigate the extent to which young adults' personal goals change during university studies (across Time 1 to Time 5), separate LGM analyses were carried out for each of the 13 types of personal goals. In these analyses, the average rate of growth (linear and quadratic trends), as well as the individual variation in the level and trend components, were estimated. Second, to investigate the extent to which gender and age would predict the level and the trend components of personal goals, these predictors were included in the previous models as covariates. Third, the extent to which the changes in life events related to marital status, parental status (having children), and graduation from the university and employment are associated with the level and trend of personal goals concerning that particular domain was examined by including these life-event variables as covariates in the LGM analyses.

Because LGM for categorical outcomes requires that there is an equal number of categories in observed variables at different time points, each goal variable was recoded accordingly before LGM analyses. As a result, education-related goal variables were, when necessary, recoded to include three categories (0, 1, 2) and all other goal content variables to include two categories (0, 1).

All the analyses were performed using the Mplus statistical package (Muthén & Muthén, 1998-2006), which has special estimation procedures for binary, ordered categorical (ordinal), unordered categorical (nominal), and count dependent variables. Because the variables of this study were skewed, the parameters of the models were estimated using the maximum likelihood estimator with robust standard errors (MLR; Muthén & Muthén, 1998-2006). With maximum likelihood, logistic regressions are estimated in the case of categorical variables. Logistic regression for ordered categorical outcomes uses the proportional odds specification.

Using the missing data method, we were able to use all observations in the data set to estimate the parameters of the models. The missing data method does not impute values for those that are missing. It uses all the data that are available to estimate the model using full information maximum likelihood. Each parameter is estimated directly without first filling in missing data values for each individual (Muthén & Muthén, 1998-2006). The goodness of fit of the estimated models was evaluated using two chi-square tests of model fit: Pearson  $\chi^2$  and likelihood ratio  $\chi^2$ .

## Results

### Changes in Personal Goals

To investigate how personal goals changed from emerging to young adulthood, LGM analyses were carried out separately for each of the 13 content categories of personal goals (education, travel, friendship, work, family, children, health, daily life, lifestyle, housing, hobbies, wealth, and self) across the five measurement points separately. The model testing was begun in each case by estimating a model that included three growth factors: the initial level (intercept growth factor), linear slope, and quadratic trend. The models were constructed by setting the loadings of the observed personal goal variable (separately for each of the 13 goals) at Time 1, Time 2, Time 3, Time 4, and Time 5 to 1 on the level factor. Due to the fact that

the measurement points were not equally spaced (because there were 24 months between Times 1 and 2, 30 months between Times 2 and 3, 48 months between Times 3 and 4, and 24 months between Times 4 and 5), the loadings of the observed variables were set to 0, 1, 2.25, 4.25, 5.25 on the linear slope, respectively, and to 0, 1, 5.0625, 8.0625, 27.5625 on the quadratic trend, respectively. As a default, the thresholds of observed categorical variables at different measurement points were estimated as equal. Growth components that showed neither a statistically significant mean nor variance were excluded from the final models. Moreover, all statistically nonsignificant variances of latent factors were fixed to 0 in the final models. The results of the final models are shown in Table 1. The means of observed variables at different measurement points are presented graphically in Figures 1 and 2. The results showed that all models for the 13 personal goals fit satisfactorily (see Table 1).

*Disengagement from personal goals.* First, the results concerning education-related personal goals showed that neither the mean nor the variance of the linear slope was statistically significant. Consequently, this growth component was excluded from the final model. However, the results showed that, at the mean level, the quadratic trend was statistically significant: On average, the number of education-related goals showed an accelerating decrease over time (see Figure 1). The results showed further that there was statistically significant variance in the quadratic trend (see Table 1): Although there were no individual differences in the initial level of education-related goals, the rate of deceleration was different among the participants.

Second, the results concerning friendship-related personal goals showed that neither the mean nor the variance of the quadratic trend was significant. Consequently, this growth component was excluded from the final model. However, at the mean level, the linear slope was statistically significant: The number of friendship-related goals decreased over time through the university years (Figure 1). The results showed further that there was statistically significant variance only with regard to the basic level. In other words, there was individual variation in the level of friendship-related goals, but the decrease in friendship-related goals was similar for all young adults (Table 1).

Finally, the results concerning travel-related personal goals showed that neither the mean nor the variance of the quadratic trend was significant. Consequently, this growth component was excluded from the final model. However, the linear trend of travel-related goals was statistically significant at the mean level: The number of traveling-related goals decreased across time (Figure 1). None of the variances of the growth components were

**Table 1**  
**Estimated Latent Growth Curve Models for the Contents of Personal Goals,**  
**Unstandardized Solution (N = 297)**

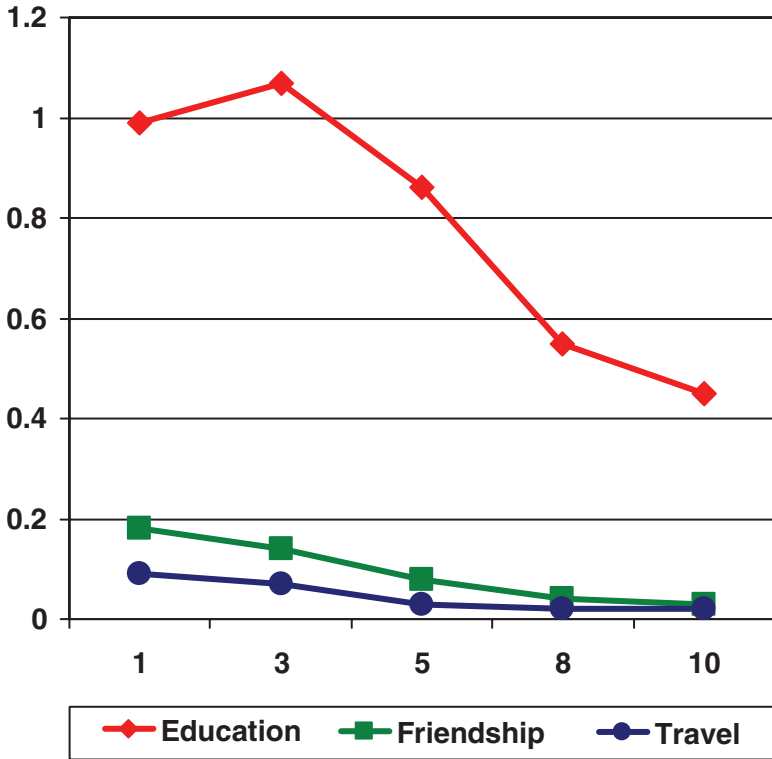
Goal Contents	Means			Variances			Fit Indexes (chi-square test)		
	Linear Slope	Quadratic Trend	Level	Linear Slope	Quadratic Trend	Pearson $\chi^2$	Likelihood Ratio $\chi^2$	$df$	
Work	0.88 (.14)***	-0.07 (.03)**	0.65 (.22)**	0 <sup>a</sup>	0 <sup>a</sup>	58.86	38.48	27	
Health	0.33 (.06)***	—	1.67 (.63)**	0 <sup>a</sup>	—	31.20	27.71	28	
Family	0.38 (.07)***	—	3.63 (1.10)**	0.15 (.07)*	—	44.81	38.00	26	
Education	—	-0.09 (.01)***	0 <sup>a</sup>	—	0.002 (.001)**	303.58	155.28	237	
Friendship	-0.42 (.08)***	—	1.41 (.47)**	0 <sup>a</sup>	—	24.66	15.46	28	
Travel	-1.03 (.26)**	—	0 <sup>a</sup>	0 <sup>a</sup>	—	50.98	22.80	27	
Children	0.11 (.11)	—	0 <sup>a</sup>	0.42 (.15)**	—	55.15	29.40	27	
Self	-0.01 (.11)	—	3.72 (1.39)**	0.21 (.09)*	—	21.80	25.93	26	
Lifestyle	—	—	1.48 (.52)**	—	—	43.96	27.65	29	
Hobbies	—	—	1.50 (.40)***	—	—	33.60	34.09	29	
Daily life	—	—	1.12 (.49)*	—	—	35.68	22.50	29	
Wealth	—	—	—	—	—	—	—	—	
Housing	—	—	—	—	—	—	—	—	

Note: Standard errors are in parentheses.

a. Fixed to zero.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

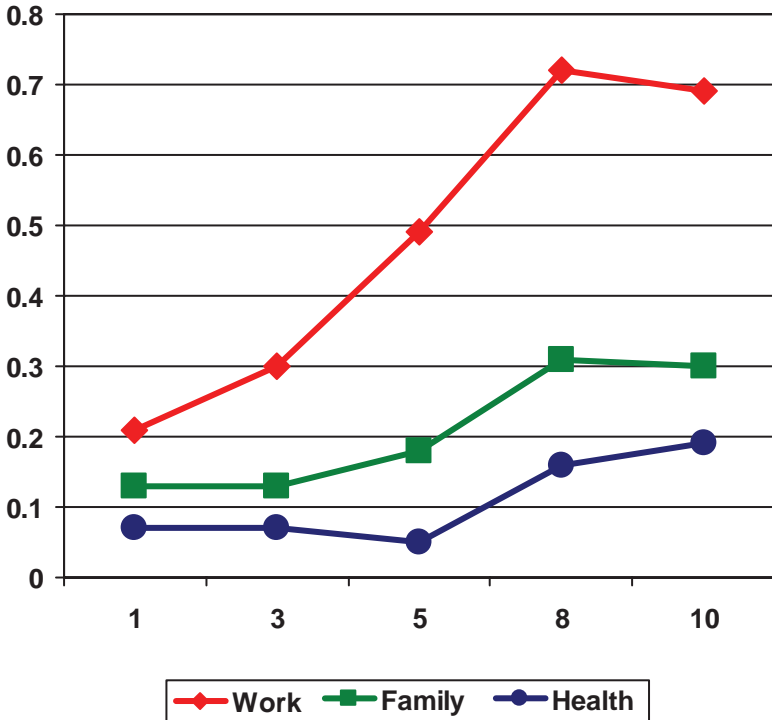
**Figure 1**  
**Disengagement From Goals Related to Education,**  
**Friendship, and Traveling**



statistically significant (Table 1), suggesting that there was no individual variation in the level of traveling goals or in the changes in them.

*Engagement in personal goals.* The results concerning work-related personal goals showed that both the linear slope and quadratic trend were statistically significant at the mean level: The number of work-related goals first increased during university studies and then leveled off (Figure 2). The results further showed that there was statistically significant variance only

**Figure 2**  
**Engagement in Goals Related to Work, Family, and Health**



with regard to the basic level, that is, there was individual variation in the level of work-related goals but the changes in these goals were similar for all young adults (Table 1).

Second, the results concerning family-related personal goals showed that neither the mean nor the variance of the quadratic trend was statistically significant. Consequently, this growth component was excluded from the final model. However, at the mean level, the mean of the linear slope was statistically significant: The number of family-related goals showed an increase throughout participants' university studies (Figure 2). The results further showed that there was statistically significant variance in both the level and linear slope. In other words, there was individual variation both in

the level of family-related goals and in their increase through the period of university studies (Table 1).

Third, the results concerning health-related personal goals showed that neither the mean nor the variance of the quadratic trend was statistically significant. Consequently, this growth component was excluded from the final model. However, at the mean level, the linear slope was statistically significant: The number of health-related goals increased through the period of university studies (Figure 2). The results further showed that there were statistically significant variances only in the basic level. Although there were no individual differences in the change of health-related goals, individuals differed according to the overall level of these goals (Table 1).

*Personal goals with stable engagement.* First, the results concerning child-related personal goals showed that neither the mean nor the variance for the quadratic trend were statistically significant. Consequently, this growth component was excluded from the final model. Neither were there any mean level linear changes in child-related goals. There was, however, statistically significant variance in the linear slope: The initial level of child-related goals was similar for all, but the rate of increase differed between participants (Table 1).

Second, the initial results for daily life-related goals showed that neither the mean nor the variances of the linear slope and quadratic trend were significant. However, the variance of the basic level was statistically significant (Table 1).

Third, the results concerning lifestyle-related goals showed that neither the mean nor the variances of the linear slope or quadratic trend were significant. The results further showed that the variance of the level was statistically significant (Table 1).

Fourth, the results concerning hobby-related personal goals showed that neither the mean nor the variances for the linear slope or quadratic trend were statistically significant. However, there was statistically significant variance in the basic level: The level in hobby-related goals differed between individuals during young adulthood (Table 1).

Finally, the initial results for self-related personal goals showed that neither the mean nor the variance for the quadratic trend was statistically significant. Neither were there any mean-level linear changes in self-related goals. The results showed, however, that there were statistically significant variances in the basic level and linear slope (Table 1): Participants differed both in the level and linear change in self-related goals during young adulthood.

The results concerning both housing- and wealth-related goals showed that none of the means or variances of the three growth components were statistically significant (Table 1).

## Age, Gender, and Personal Goals

To examine whether age and gender are associated with the level and growth components of different contents of personal goals, we constructed models in which paths from age and gender were added to those growth components that showed statistically significant variance.

The results showed that, first, age predicted statistically significantly the overall level of work-related (standardized estimate = .34,  $p < .01$ ), family-related (standardized estimate = .28,  $p < .01$ ), and friendship-related (standardized estimate = -.33,  $p < .05$ ) goals: The older participants were, the more work- and family-related goals and the less friend-related goals they had. In addition, the results showed that age also predicted the linear slope of family-related (standardized estimate = -.39,  $p < .01$ ) and child-related (standardized estimate = .22,  $p < .05$ ) goals: The older the participant, the less the increase in family-related personal goals and the more the increase in child-related goals over time.

The results for gender showed that gender predicted the level of daily life- (standardized estimate = .43,  $p < .05$ ) and leisure-related goals (standardized estimate = -.18,  $p < .05$ ): Women reported more frequently daily goals, whereas men reported more leisure goals. Moreover, gender also predicted the slope of child-related goals (standardized estimate = .24,  $p < .05$ ): Women showed a steeper rate of growth than men.

## Personal Goals and Life Events

*Family- and child-related life events.* To examine the extent to which experiencing certain life events is associated with the content of personal goals, we first investigated the extent to which the timing of child- or family-related life events (a change from childlessness to parenthood or a change from being single to cohabiting or being married) during the 10-year period of young adulthood was related to the level and change of children- and family-related personal goals.

The results showed that change in marital status during the university years was related to both the level (standardized estimate = -.67,  $p < .001$ ) and linear slope (standardized estimate = .46,  $p < .01$ ) of family-related

goals: The more family-related goals the young adults initially had, the earlier they had married or cohabited during the university years. However, the earlier the participants married or cohabited, the more family-related goals they initially had, but the less increase in these goals across the university years. Moreover, the results also showed that the change in parental status was related to the level (standardized estimate =  $-.40$ ,  $p < .01$ ) and linear slope (standardized estimate =  $.34$ ,  $p < .01$ ) of family-related goals: The more family-related goals the young adults initially had and the less increase in these goals, the earlier the timing of becoming a parent.

Because age was found to be related to the level and linear slope of family-related goals, previous analyses were carried out also by controlling for the effects of age. The results showed that, after controlling for the effect of age, marital status was still related to the level (standardized estimate =  $-.64$ ,  $p < .001$ ) and slope (standardized estimate =  $.43$ ,  $p < .01$ ) of family-related goals, as well as to the level of family-related goals (standardized estimate =  $-.29$ ,  $p < .01$ ). However, the relation between parental status and the slope of family-related goals was not anymore statistically significant (standardized estimate =  $.18$ ,  $p$  ns), suggesting that this relationship was due to age. The analyses showed further that age negatively predicted both marital (standardized estimate =  $-.27$ ,  $p < .001$ ) and parental (standardized estimate =  $-.39$ ,  $p < .001$ ) status: The younger the participant, the later he or she married or cohabited during the university years and the later he or she became a parent.

Next, the results showed that change in marital status (standardized estimate =  $-.40$ ,  $p < .01$ ) and change in parental status (standardized estimate =  $-.43$ ,  $p < .001$ ) were related to the linear slope of child-related goals: The earlier young adults had married or cohabited during the university years and the earlier the timing of becoming a parent, the less increase in child-related goals they showed.

Because age and gender were found to be related to the linear slope of child-related goals, the previous analysis was carried out also by controlling for the effects of these two variables on the linear slope of child-related goals. After that, the results showed that change in marital status (standardized estimate =  $-.30$ ,  $p < .01$ ) as well as change in parental status (standardized estimate =  $-.34$ ,  $p < .01$ ) were still related to the slope of child-related goals. These analyses showed further that both age (standardized estimate =  $-.42$ ,  $p < .001$ ) and gender (standardized estimate =  $-.11$ ,  $p < .05$ ) predicted the change in parental status: The younger the participant, the later he or she became a parent during the university years.

Moreover, women typically became a parent earlier than men. Age also predicted the change in marital status (standardized estimate =  $-.28$ ,  $p < .01$ ): The younger the participant, the later he or she married or cohabited during the university years.

*Education and work-related life events.* Our next aim was to examine the extent to which graduation from the university and entry into employment after graduation were related to the number of education- or work-related personal goals. The results showed that the quadratic trend of education-related goals was related to graduation from the university (standardized estimate =  $.65$ ,  $p < .001$ ): The earlier the participants had graduated from the university, the more deceleration in education-related goals they showed during young adulthood.

Moreover, the results showed that the quadratic trend of education-related goals was negatively related to finding employment after graduation (standardized estimate =  $-.69$ ,  $p < .001$ ): Those who had found a workplace after graduation from the university by the time of the last measurement, compared to those who had not, showed a deceleration in their education-related goals during the university years. Finally, the results showed that the level of work-related goals was not related to the score measuring graduating and finding employment.

## Discussion

The life-span model of motivation suggests that age-graded demands and opportunities channel the kinds of personal goals people construct, that such goals play an important role in the ways in which people direct their own development, and that people adjust their personal goals on the basis of previous role transitions (Nurmi, 1993, 2004; Salmela-Aro et al., 2001). The results of a 10-year follow-up study supported the model for the most part. Changes in personal goals from emerging to young adulthood were found to reflect the demands of this particular stage of the transition they were experiencing. For example, as young adults progressed through their university studies, they engaged in goals related to work, family, and health. Personal goals from emerging to young adulthood were also found to predict subsequent role transitions, but only in interpersonal domains of life: The more family-related goals young adults reported at the beginning of university studies, the earlier they started to cohabitate, get married, and become a parent.

## Age-Graded Developmental Tasks and Transitions Channel Personal Goals

Typical challenges and demands of the early university years include the adoption of the student role and the building of relationships with study mates. Later on, as the students progress in their studies and graduate from university, there is a transition out of these roles and an entry into the roles of adult worker, spouse, and parent (Grob et al., 2001; Marini, 1987; Schulenberg & Maggs, 2002). The results of this study showed that these changes in normative demands and role transitions channel young adults' personal goals and changes in these, during the years they spend at university (Nurmi, 2004). On one hand, the participants showed a decrease in personal goals related to education, and their decrease got steeper across the years. Moreover, the number of personal goals related to friends and traveling decreased from emerging to young adulthood. On the other hand, young adults showed an increasing engagement in work-related personal goals during their university years. Similarly, the number of personal goals focusing on future family and health increased.

It was assumed in this study that age should strengthen the normative pressure to deal with major age-graded role transitions, such as getting married and having a child, because the proximity to these transitions decreases with age (Heckhausen & Tomasik, 2002). As was expected, the results showed that the older the participants, the more work- and family-related goals and the less friend-related goals they had. This result suggests that a closer proximity to future transitions related to increasing age leads to normative pressure to deal with goals concerning these transitions. An interesting issue for further research is, as a typical feature of the past 20 years has been the postponement of many role transitions (e.g., having the first child) at this age period, to what extent such postponement of major transitions causes anxiety among people as they realize that they are closing the deadlines of successful attainment of some role transitions that may have biological restrictions, such as having a child (Heckhausen et al., 2001).

One typical feature of the developmental context of Finnish youth is that educational transitions take place relatively late. It is typical, for example, to graduate from university after the age of 30. This may, in fact, cause problems for educated young people, because late graduation and entrance into working life also means that key transitions in achievement and interpersonal domains focus closely on the same age period. Such focus of many transitions may cause stress and intensify conflicts between work and family life, for example.

## **The Role of Personal Goals in Normative Transitions**

It was assumed that the kinds of personal goals young people had during the first years of their university studies would direct their future lives (Baltes, 1997; Nurmi, 1993; Salmela-Aro, 2001). The results showed that this was the case but only in the interpersonal domains of life: Those young adults who initially had family-related goals married or started to cohabit earlier and were more likely to have children later on compared to other young people (see also Salmela-Aro & Nurmi, 1997). Overall, these results suggest that individual motivation, as reflected in their personal goals, is predictive of the timing of people's interpersonal role transitions.

However, young people's goals in the achievement domains, that is, those relating to work and education, did not predict the timing of the transitions in these domains of life (see also Nurmi & Salmela-Aro, 2002). There are several possible explanations for this result. The first is that a large majority of emerging adults report education-related goals at the beginning of their studies, and there is not very much individual variation in this respect. Consequently, such a variable is not likely to predict future transitions. Another possible explanation is that transitions in achievement-related life domains, such as graduating from university and finding a job after graduation, may be determined mainly by factors that are not under personal control, such as the chosen field of study, job markets, and so on. In other words, these role transitions may be more characterized by constraints than opportunities (Heckhausen, 1999) and may therefore be less influenced by individual motivation (Salmela-Aro et al., 2001). The third possible explanation for the result that goals in the achievement domains did not predict timing of related transitions is that achievement-related and interpersonal goals may differ in some important characteristics that have consequences for how goals affect people's life-span outcomes. For example, Sheldon and Elliot (2000) found that individuals perceived their interpersonal goals as more intrinsically motivating and less externally motivating than their achievement-related goals.

## **The Role of Life Transitions in Goal Adjustment**

It was further assumed that going through particular role transitions, such as graduating from university, should lead to the adjustment of personal goals (Brandtstädter & Renner, 1990; Heckhausen, 1999; Nurmi & Salmela-Aro, 2002). The results showed, along with this assumption, that early graduation from the university and entrance into working life both

predicted an accelerating decrease in education-related goals. These results are in accordance with the findings of Nurmi and Salmela-Aro (2002). However, the results of this study did not find any changes in work-related goals due to graduation. Overall, the results of this study suggest that the changing challenges and demands associated with a particular transition require individuals to adjust their goals as a means of coping with the new life situation they will find after a transition (Brandtstädter & Renner, 1990; Heckhausen, 1999; Salmela-Aro & Nurmi, 1997).

The results for the interpersonal domain of life were somewhat different. Those who had started a relationship during their early university years (cohabitation or marriage) showed a less steep increase in family- and child-related goals than other students. These findings suggest that particularly those young adults who had not yet been involved in starting a serious relationship increase their interest to do so during their university years. One possible reason for this result is that young adults start to feel that they are approaching some deadlines in their development, such as optimum biological age of having children, for example (Heckhausen et al., 2001).

## Limitations

There are at least the following limitations that should be taken into account in any attempt to generalize the findings of this study. First, the sample examined was made up of university students and was not representative of emerging and young adults in their 30s. It may be, therefore, that those in vocational schools or full-time employment, for example, will show a different result pattern. Second, the sample was made up of Finnish university students. Several features of Finnish universities, such as a higher age level of entry to the university and tuition-free studies, may mean that some of the results might have been different if examined in countries with a different kind of university system. Third, the percentage of men in the sample was relatively low. This decreases the power of statistical testing and may explain, for example, the lack of gender differences in this study. Fourth, some of the life events, particularly those related to family and children, were quite unlikely to happen during the first years of university studies. Finally, this study did not focus on different individual characteristics, such as personality traits, or various background factors, for example. Parental divorce might have influenced young people's goals and the timing of the transitions they were facing. Such a study will be one challenge for further research on personal goals.

## Conclusion

This 10-year follow-up study provided some evidence for the key propositions of the life-span model of motivation. Age-graded developmental tasks and role transitions were found to channel young adults' personal goals, which further contributed to their subsequent life events, but only in interpersonal domains of life. Going through a particular transition led to goal adjustment but, in this case, particularly in the education and work domain. In interpersonal life domains, particularly those young adults who were late in starting transitions showed a steeper increase in related goals, such as those related to family and having children.

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