

Premature Behavioral Autonomy Correlates in Late Adolescence and Young Adulthood

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Abstract. Timing matters in the development of adolescents' behavioral autonomy. Drawing from two German national surveys, the present studies showed that premature curfew autonomy (measured retrospectively) was associated with developmental risks in late adolescence (16–21 years, assessed in 1996) and young adulthood (25–30 years, assessed in 2005). Premature individuals neither experienced socioeconomic disadvantages nor had lower educational aspirations in late adolescence, but they attained lower levels of education in young adulthood. Premature curfew autonomy was further associated with maladjustment regarding certain developmental challenges of late adolescence (higher deviant behavior, lower disclosure, higher identity diffusion, and lower planfulness) and young adulthood (no differences in employment and partnership status, but higher demands of social change in work, family, and public life). Finally, premature curfew autonomy was related to lower subjective well-being in late adolescence and young adulthood.

Keywords: adolescence, developmental tasks, developmental timing, behavioral autonomy, social change

Autonomy has been conceptualized as a universal human need (Ryan & Deci, 2000), and particularly adolescence is an important phase for autonomy development (e.g., Erikson, 1968; Kağıçbaşı, 2005; Steinberg & Silverberg, 1986; Zimmer-Gembeck & Collins, 2003). However, studies show that a premature acquisition of certain autonomy facets is associated with developmental risks. This pertains not only to behavioral autonomy, the focus of this article (e.g., Beyers & Goossens, 1999; Dishion, Nelson, & Bullock, 2004; Feldman & Rosenthal, 1991; Feldman & Wood, 1994; Lamborn, Dornbusch, & Steinberg, 1996; Smetana, Campione-Barr, & Daddis, 2004), but also to other aspects of autonomy including emotional autonomy (Goossens, 2006). Previous studies have often focused on premature autonomy in adolescence, but little is known about longer-term correlates of prematurity beyond the transition into adulthood. Following a lifespan perspective on human development (e.g., Baltes, 1987), we aimed to elucidate correlates of premature behavioral autonomy in late adolescence and young adulthood in the present studies. We examined a broad variety of correlates building on earlier studies that often focused on selected aspects of adjustment and maladjustment.

Premature Behavioral Autonomy

Every developmental period brings about typical tasks and challenges where opportunities for mastering these tasks are at a maximum (Havighurst, 1976; Heckhausen, 1999). This is reflected in age-graded timetables that exist for many developmental tasks (Neugarten & Neugarten, 1996) including autonomy development (e.g., Daddis & Smetana,

2005; Feldman & Wood, 1994). Besides age-normative conceptions, social institutions shape age-graded opportunity structures, for example, by determining legal ages when autonomy privileges are granted (e.g., Schleifer v. City of Charlottesville, 1998). Such regulations take into account that psychosocial and biological maturity (e.g., Greenberger, 1984; Spear, 2000) may be prerequisites for healthy autonomy development.

As Feldman and Rosenthal (1991) noted, early behavioral autonomy may carry two opposite meanings:

“It may be indicative of positive growth, maturity, a willingness to fend for oneself (. . .) On the other hand, early behavioral autonomy may be seen as a precocious and precipitous entry into the youth culture, and as a premature dismissal of the restraining influence of parents” (p. 18–19).

In fact, many empirical studies support the latter notion. Premature behavioral autonomy is associated with deviant behavior (e.g., Beyers & Goossens, 1999; Dishion et al., 2004; Lamborn et al., 1996; Smetana et al., 2004), depressive symptoms (e.g., Smetana et al., 2004), and poor parent-child relations (e.g., Feldman & Rosenthal, 1991; Feldman & Wood, 1994; Schmitt-Rodermund & Silbereisen, 1999).

Although these findings suggest that premature behavioral autonomy is maladaptive, this view can be challenged by drawing from Elder's (1974) seminal study on the children of the Great Depression. In his study, particularly boys who experienced autonomy prematurely in adolescence showed good adaptation in adulthood (see also Mortimer & Staff, 2004). This raises a second point: Little is known about longer-term effects of prematurity beyond the transition into adulthood. It is possible that maladaptive effects

of prematurity are limited to adolescence (Moffitt, 1993) or that turning points disrupt negative developmental trajectories (Sampson & Laub, 2005). On the other hand, premature behavioral autonomy might open up a negative developmental pathway with long-lasting effects (e.g., Caprara, Dodge, Pastorelli, & Zelli, 2006; Heckhausen & Schulz, 1999; Rutter, 1999; Sameroff, 2000).

The Present Studies

The present studies examine correlates of premature behavioral autonomy in late adolescence and young adulthood. Using retrospective reports of autonomy timing gathered in two independent samples, we were able to study correlates in late adolescence, between the ages of 16 and 21, and young adulthood, between the ages of 25 and 30. We examined behavioral autonomy, which refers to the adolescent's freedom to self-regulate behaviors and actions as part of a process toward increasing self-governance (e.g., Feldman & Wood, 1994; Zhang & Fuligni, 2006), and we focused on premature curfew autonomy as an aspect of behavioral autonomy with high face validity: When did adolescents decide themselves when to go out and come home? In Germany, where the present studies were conducted, 16 years is the legal age for many autonomy privileges, and hence was chosen as a cutoff age. Three sets of correlates of premature curfew autonomy were studied – sociodemographic characteristics, developmental challenges, and subjective well-being.

First, *sociodemographic characteristics*, namely, age, gender, education, and geographical region, were investigated. We were particularly interested in whether premature curfew autonomy would be related to growing up in disadvantaged conditions.

Second, we studied correlates, which reflected age-relevant *developmental challenges* of late adolescence and young adulthood. In late adolescence, we investigated whether participants with premature curfew autonomy also reported an earlier timing of other autonomy transitions (Haase, Silbereisen, & Reitzle, 2008), studying both privileges (i.e., going to a discotheque, drinking alcohol, having sexual experiences) as well as responsibilities (i.e., forming first vocational preferences, Vondracek, Silbereisen, Reitzle, & Wiesner, 1999). In addition, a variety of psychosocial correlates was analyzed considering the potentially positive as well as negative meanings of premature behavioral autonomy (Feldman & Rosenthal, 1991). Specifically, we included deviant behavior (e.g., Dishion et al., 2004) and parental monitoring (e.g., Feldman & Wood, 1994) indicated by child disclosure (Stattin & Kerr, 2000) building on past research. We further analyzed identity status to take into account that premature curfew autonomy may actually be related to higher identity exploration (Marcia, 1980). Moreover, subjective status as an adult (Arnett, 2000) and planfulness (Clausen, 1991) were included to investigate

whether prematurity reflected accelerated psychosocial development.

In young adulthood, employment and partnership status as markers of normative *transitions to adulthood* (Arnett, 2000) were analyzed. We were curious whether premature curfew autonomy in adolescence would be associated with accelerated or delayed transitions to adulthood. Moreover, we considered a rather unusual, but for Germany and other European countries highly relevant, correlate, namely, *the demands of social change* individuals perceived in the domains of work, family, and public life (Tomasik & Silbereisen, 2008). These demands, arising from globalization and individualization trends in contemporary societies, comprise for example lower job security, growing uncertainty concerning family decisions, and increasing lack of normative orientations (Larson, 2002; Silbereisen, Best, & Haase, 2007). These demands were studied because, although anyone may experience them to some extent, people who lack economic and psychosocial resources appear particularly vulnerable (Silbereisen & Pinquart, 2008). We expected that premature individuals would experience more demands of social change.

Finally, *subjective well-being* was examined as an important indicator of psychosocial adaptation (e.g., Diener, 2000). We focused on both positive and negative affect (Watson, Clark, & Tellegen, 1988) and added life and domain-specific satisfaction in young adulthood, eventually covering the three-dimensional structure of subjective well-being proposed by Diener (e.g., 2000). In accordance with Havighurst (1976), empirical findings show that an off-time engagement with developmental tasks is associated with lower well-being (e.g., Heckhausen, Wrosch, & Fleeson, 2001; Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2001; Schulenberg, Bryant, & O'Malley, 2004). This holds also true for autonomy development (e.g., Smetana et al., 2004). We were curious whether lower levels of well-being would persist in the long run and which facets of well-being would be most affected.

Method

Sample

The present analyses drew from two independent national surveys of German adolescents and young adults. The studies investigated the same birth cohorts born between 1975 and 1980, though they did not follow the same individuals across time. In both studies, data were collected by trained staff in standardized face-to-face interviews that lasted approximately 1 h. Parental consent was obtained for minor participants. Participation was voluntary, and no compensation was paid.

Data on late adolescence were collected in 1996 when individuals were between 16 and 21 years old. This sample was a nationally representative quota sample stratified by

federal state, community size, age, education, and gender. Quota sampling (e.g., Henry, 1990) ensures relative sample representativeness. More detailed information can be found in Haase et al. (2008) and Reitzle and Silbereisen (2000)¹. From the overall sample of 3275 participants we selected participants born between 1975 and 1980, the target birth cohorts. Outliers and participants with missing information on their curfew timing were excluded ($n = 56$) resulting in a final sample size of 982.

Data on young adulthood were collected in 2005 when individuals were between 25 and 30 years old. The young adulthood sample was a random route sample with a response rate of 77.1% collected from two West and two East German federal states stratified by county and community size and representative in terms of age and gender (for details see Reitzle, 2008). The total sample comprised 2861 participants aged 14 to 43 years. Again, participants from the target birth cohorts (1975 to 1980) were selected resulting in a final sample size of 397 participants.

Participants' mean age was 18.43 years ($SD = 1.47$) in late adolescence and 27.31 years ($SD = 1.51$) in young adulthood. About 50% (late adolescence: 50.2%; young adulthood: 51.9%) were females. The majority (late adolescence: 45.8%; young adulthood: 48.1%) aspired for or had attained a middle education level equivalent to 10 years of education (low education = 8 years: late adolescence: 18.7%; young adulthood: 25.9%; high education = 12 or 13 years: late adolescence: 35.3%; young adulthood: 25.9%).

We distinguished between a *premature* (1) group of participants (late adolescence: $n = 178$, 18.1%; young adulthood: $n = 63$, 15.9%) who reported having experienced curfew autonomy below the legal age of 16, and a *normative* (0) group (late adolescence: $n = 804$, 81.9%; young adulthood: $n = 334$, 84.1%) who reported having experienced curfew autonomy when they were 16 years old or older. The mean age at which premature participants experienced the transition was about 14 years (late adolescence: $M = 14.39$, $SD = .91$; young adulthood: $M = 14.35$, $SD = .81$). In contrast, the normative group reported a median transition age of 17.80 (late adolescence) and 17.33 ($SD = 1.17$) years (young adulthood), respectively. Note that survival analysis was used and hence the median age was reported, as is common for this technique, for the normative group in late adolescence because not all participants in this group had experienced the transition at the time of data collection.

Statistical tests revealed that both samples were equivalent with regard to gender, region, and transition timing in the premature and normative group, but significant sample differences were found for education ($\chi^2(1) = 14.87$, $p < .01$). In young adulthood, the average educational attainment was lower, which probably resulted from different

measures. In late adolescence, we had assessed the level of education attained *or* aspired for, whereas in young adulthood the level of education actually attained was assessed.

Measures

Premature Curfew Autonomy

In order to assess premature curfew autonomy in adolescence an item from the Teen Timetable (Feldman & Quatman, 1988) was used ("When did you determine yourself when to go out and come home for the first time?" in full years). The Teen Timetable is an established measure of age expectations for behavioral autonomy and has demonstrated adequate reliability and validity across ethnic groups and cultures (e.g., Feldman & Wood, 1994; Fuligni, 1998; Zhang & Fuligni, 2006). The present item with its retrospective phrasing was drawn from the German Shell Youth Studies, which have a tradition over decades in the retrospective assessment of transition timing (e.g., Haase et al., 2008). Various studies show that retrospective measures of developmental transitions yield satisfying reliability and validity (e.g., Brewin, Andrews, & Gotlib, 1993; Cohen, Kasen, Bifulco, Andrews, & Gordon, 2005). Moreover, based on an extensive literature review, Rutter, Maughan, Pickles, and Simonoff (1998) concluded that retrospective recall is best for clearly definable events; and the transition to curfew autonomy should fall in this category. Finally, memories from adolescence generally appear to be particularly accessible, which results in the so-called reminiscence bump effect, presumably because they serve as a foundation for other autobiographical memories (e.g., Conway, Wang, Hanyu, & Haque, 2005).

Sociodemographic Characteristics

A variety of sociodemographic characteristics was assessed including *gender* (1 = male; 2 = female), *own education* (late adolescence: education aspired for *or* attained), *education of mother* and *father* (1 = 8 years of education; 2 = 10 years; 3 = 12 or 13 years), and geographical *region* (1 = former West Germany; 2 = former East Germany).

Correlates in Late Adolescence

Timing of Other Autonomy Transitions

We used items from the Teen Timetable (see above) to investigate when participants had visited a *discotheque* for the first time ("Going to a discotheque for the first time"),

¹ Original data and derived scales were translated into English and have been documented and archived by the Department of Developmental Psychology at the University of Jena and the ZA (Zentralarchiv für Empirische Sozialforschung Köln). Files can be retrieved online from www.gesis.org (late adolescence study: number 3434; identity validation study: number 2323).

when they had drunk *alcohol* for the first time (“Really drinking alcohol for the first time”), and when they had had their first *sexual experiences* (“Having your first sexual experiences”). Drawing from Vondracek et al. (1999), we added the timing of first *vocational preferences* (“Knowing what career you wanted for the first time”). Transition ages were assessed in full years.

Psychosocial Correlates

Deviant behavior ($\alpha = .80$) was measured by a ten-item scale, which has been used in studies of German adolescents (e.g., Wiesner & Silbereisen, 2003). Participants reported how often (1 = never; 3 = often) they engaged in various deviant activities (e.g., shoplifting, getting into a serious fight).

Child disclosure ($\alpha = .77$) was measured by four items (e.g., “How often did you tell your mother (father) what is going on in your life?”). These items are similar to items used for example by Chen, Greenberger, Lester, Dong, and Guo (1998). Answers ranged from (1) always to (4) never. The scale was recoded so that higher values indicated higher disclosure.

Identity status was measured by a single-item measure with four answer categories: (1) “I am currently not sure about what I want to do with my life, I simply let things happen” (*identity diffusion proxy*); (2) “I am currently not sure what I want to do with my life, but I am investing much time and effort to find out” (*identity moratorium proxy*); (3) “I know pretty well what I want to do with my life because I usually follow well-established paths” (*identity foreclosure proxy*); (4) “I know pretty well what I want to do with my life because I have spent a great deal of time and effort thinking about it” (*identity achievement proxy*). Undoubtedly, this assessment only constitutes a rough proxy of the four identity statuses proposed by Marcia (1980). Previous studies, however, have demonstrated adequate validity of the present item (Silbereisen, Vondracek, & Berg, 1997; Vondracek et al., 1999). In order to provide further validity support, we followed the example of Martin, Friedman, Clark, and Tucker (2005) and others who used additional data from another study to support the validity of their measures. Specifically, we conducted an additional analysis using data of an independent study of late adolescents ($N = 232$; 52.6% females; age: $M = 19.95$, $SD = 1.54$). Convergences emerged between the present items and all subscales of the well-established Extended Objective Measure of Ego-Identity Status (EOM-EIS, domains: Occupation and friendship; Bennion & Adams, 1986) (identity diffusion: $r = .23$, $p < .001$; identity moratorium: $r = .28$, $p < .001$; identity achievement: $r = .19$, $p < .01$) except for identity foreclosure ($r = .05$, *ns*), which probably resulted from the ambiguous item formulation (“follow well-established paths”). We hence decided to exclude this item and computed three dichotomous variables indicating identity diffusion, moratorium, and achievement (1 = respective status; 0 = else).

Subjective adult status was assessed by one item: “Do you view yourself rather as an adolescent, as an adult, or something else?” A dichotomous variable was computed indicating that participants viewed themselves as an adult (1), which corresponds to the affirmative answer “yes” to the question “Do you feel that you have reached adulthood?” (Arnett, 2000). When participants viewed themselves as adolescents or something else the variable was coded as (0). We conducted an additional study with undergraduate students ($N = 87$; 80.5% females; age: $M = 22.34$, $SD = 2.49$) to examine the validity of this item, again following the example of Martin et al. (2005). The present item correlated with Arnett’s (2000) measure of subjective adult status ($r = .62$, $p < .001$) as well as with subjective age (Galambos, Kolaric, Sears, & Maggs, 1999) ($r = .32$, $p < .01$ controlling for chronological age).

Planfulness ($\alpha = .80$) was measured by 5 items on a 4-point scale (e.g., “I just live for the moment”). Items were recoded so that higher values indicated higher planfulness (1 = completely agree; 4 = completely disagree). This measure was an extended version of the planfulness measure used by Vondracek et al. (1999).

Correlates in Young Adulthood

Transitions to Adulthood

Employment status was assessed by asking whether the participant was currently employed (1) or not (0). *Partnership status* was measured by one item (“What is your marital status?”), which was recoded into a dichotomous variable reflecting whether participants were in an intimate relationship irrespective of legal status (1 = with partner or married) or not (0).

Demands of Social Change

We measured the demands of social change (Silbereisen & Pinquart, 2008) individuals perceived in work (e.g., “The risk of losing my job has increased”), family (e.g., “It is now more likely that my partner could leave me”), and public life (e.g., “There are now less points of reference for me concerning what is right and wrong”) using 6 items in each of the three domains. All items are presented in the Appendix. These items were assessed with a standardized reference “as compared to 5 years ago” (1 = completely disagree; 7 = completely agree). This reference was chosen because in pretests we had found that when individuals experienced changes between 2000 and 2005 – the time period under investigation – these changes ubiquitously pointed towards higher demands (Tomasik & Silbereisen, 2008). Within each domain, the high-agreement scores (i.e., 6 and 7 = completely agree) were summed across the 6 items so that the resulting score ranged between 0 (no challenges highly endorsed) and 6 (all challenges highly endorsed) for each domain. We de-

cided for this procedure for two reasons. First, due to skewed distributions of the single items it was empirically more appropriate to dichotomize the variables in terms of high agreement vs. not. Second, for conceptual reasons and reminiscent of other cumulative risk indices (e.g., Rutter, 1999), we preferred to count the number of highly endorsed demands over computing a mean composite score (see Tomasik & Silbereisen, 2008)².

Subjective Well-Being

In late adolescence, *negative affect* ($\alpha = .87$) was assessed by 13 items from the original German 15-item version of the Center for Epidemiologic Studies Depression Scale (Radloff, 1991). These items measured negative affect during the last week (e.g., "I was sad"; 0 = rarely/never; 3 = mostly/always). *Positive affect* ($\alpha = .70$) was measured extracting two items from the same scale that loaded on a separate factor and measured positive affect (e.g., "I was in a joyful mood"; 0 = rarely/never; 3 = mostly/always).

In young adulthood, negative affect ($\alpha = .88$) was assessed using the 6-item depression subscale of the Brief Symptom Inventory (Derogatis, 1993). These items measured negative affect during the last month (e.g., "feeling hopeless about the future"; 1 = not at all; 7 = severely). *Positive affect* ($\alpha = .90$) was measured using the positive affect subscale of the PANAS (Watson et al., 1988). Participants rated how often they had experienced ten positive affective states during the last month (e.g., "enthusiastic"; 1 = never; 7 = very often). In addition, we included single-item measures of *general life satisfaction* and *satisfaction with work, finances, family, and leisure*. Such single item-measures of satisfaction are reliable and valid (Andrews & Robinson, 1991; Wanous, Reichers, & Hudy, 1997).

Results

We examined whether individuals with premature curfew autonomy (premature group) differed from individuals with normative timing (normative group) regarding

- 1) Sociodemographic characteristics,
- 2) A variety of developmental challenges, and
- 3) Subjective well-being in late adolescence and young adulthood.

Regarding sociodemographic differences between the premature and the normative group, χ^2 tests were used. Re-

garding differences between the two groups in the timing of other autonomy transitions, we used Cox regression analyses as not all participants had experienced all transitions at the time of data collection. Cox regression analysis, a method from the family of survival analysis, is recommended when such so-called "censored cases" are present (Singer & Willett, 2003). In Cox regression, hazard ratios ($\text{Exp}(B)$) are used as effect size measures. Hazard ratios above 1 indicate that participants in the premature group had experienced the transition in question earlier than their normative age-mates. All remaining analyses were conducted using MANOVAs, separately for each of the three sets of correlates in late adolescence and young adulthood and using Pillai's trace as a robust criterion.

Sociodemographic Characteristics

First, we examined whether the premature group differed from the normative group regarding sociodemographic characteristics. In late adolescence as well as in young adulthood, no differences were found regarding gender (late adolescence: $\chi^2(1) = 2.95$, *ns*; young adulthood: $\chi^2(1) = .22$, *ns*) and parental education (mother: $\chi^2(2) = .24$, *ns*; father: $\chi^2(2) = .41$, *ns*). In late adolescence, no differences emerged regarding own education aspired for or attained ($\chi^2(2) = 1.47$, *ns*), but differences emerged in young adulthood: Participants in the premature group had attained lower education ($\chi^2(2) = 11.82$, $p < .01$, $\phi = .1$). Moreover, whereas East-West origin played no role in late adolescence ($\chi^2(1) = 2.50$, *ns*), a higher share of East Germans was found in the premature group in young adulthood ($\chi^2(1) = 5.29$, $p < .05$, $\phi = .12$).

Developmental Challenges

Other Autonomy Transitions in Late Adolescence

We analyzed whether participants who reported earlier curfew autonomy also reported an earlier timing of other behavioral autonomy transitions. Participants with premature curfew autonomy experienced various other autonomy transitions earlier than their normative peers (see Figure 1). They visited discotheques earlier ($\text{Exp}(B) = 1.39$, $p < .001$), drank alcohol earlier ($\text{Exp}(B) = 1.59$, $p < .001$), and had their first sexual experiences earlier ($\text{Exp}(B) = 1.75$, $p < .001$). However, premature and normative respondents did not differ regarding the timing of their first vocational preferences ($\text{Exp}(B) = .99$, *ns*)³.

² We also performed all analyses following the conceptually less appropriate but more traditional approach of computing a mean composite score. All results remained stable.

³ In an additional analysis we explored whether the two groups differed regarding the prestige of the vocations they aspired for. Participants indicated which vocation they aspired for in a free answering format (three nominations). We coded the prestige of these vocations using the social prestige scale developed by Tomasik and Heckhausen (2006). No differences in the average prestige of vocations aspired for were found ($t(427) = 1.13$, $p = .26$) between premature ($M = 51.40$, $SD = 7.98$) and normative ($M = 52.63$, $SD = 8.82$) participants.

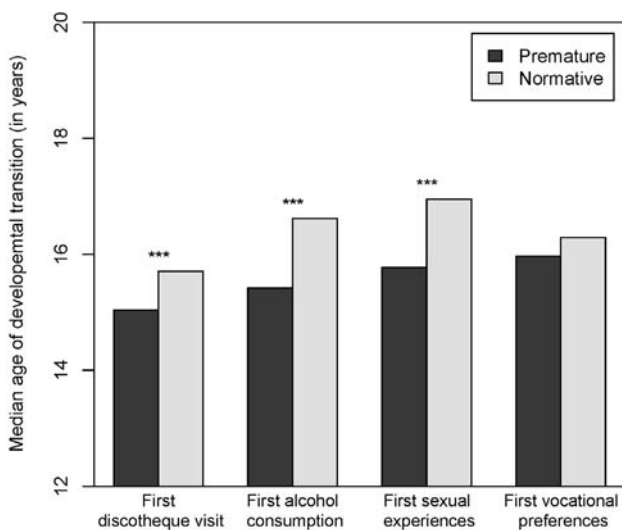


Figure 1. Late adolescence: Timing of autonomy transitions (premature vs. normative group).

Psychosocial Characteristics in Late Adolescence

A picture of broad maladjustment in the premature group emerged in late adolescence, $F(7, 920) = 9.80$; $p < .001$; Pillai's trace = .069. Specifically, premature individuals reported higher deviant behavior, $F(1, 926) = 51.69$, $p < .001$, $\eta^2 = .053$, lower disclosure, $F(1, 926) = 23.74$, $p < .001$, $\eta^2 = .025$, higher identity diffusion, $F(1, 926) = 4.47$, $p < .05$, $\eta^2 = .005$, and lower planfulness, $F(1, 926) = 23.03$, $p < .001$, $\eta^2 = .024$. No differences were found with regard to identity moratorium, $F(1, 926) = 1.23$, *ns*, identity achievement, $F(1, 926) = .00$, *ns*, and subjective adult status, $F(1, 926) = .38$, *ns*; see Table 1.

Transitions to Adulthood in Young Adulthood

We proceeded to investigate differences in employment and partnership status in young adulthood. The premature and normative group differed neither in employment ($\chi^2(1) = 2.25$, *ns*) nor partnership status ($\chi^2(1) = .07$, *ns*).

Demands of Social Change in Young Adulthood

Finally, premature participants perceived more demands of social change in young adulthood, $F(3, 393) = 3.61$; $p < .05$; Pillai's trace = .027. Specifically, significant differences were found in the domains of work, $F(1, 395) = 8.16$, $p < .01$, $\eta^2 = .020$, family, $F(1, 395) = 3.80$, $p < .05$, $\eta^2 = .010$, and public life, $F(1, 395) = 5.23$, $p < .05$, $\eta^2 = .014$. As presented in Figure 2, the premature group reported more demands in all three domains.

Table 1. Late adolescence: Psychosocial correlates (premature vs. normative group)

Variables	Premature	Normative
Deviant behavior	1.67 (.44)	1.46 (.33)
Disclosure	2.53 (.76)	2.82 (.68)
Identity diffusion	.25	.18
Identity moratorium	.30	.35
Identity achievement	.13	.13
Subjective adult status	.22 (.41)	.24 (.43)
Planfulness	2.13 (.61)	2.38 (.60)

Note. Means (standard deviations).

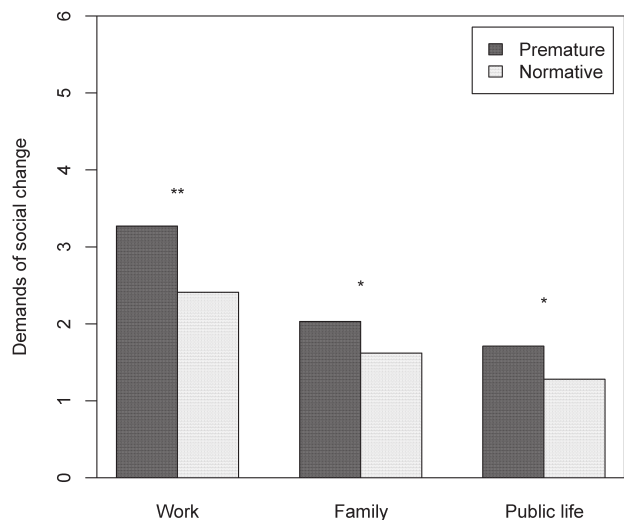


Figure 2. Young adulthood: Demands of social change (premature vs. normative group).

Subjective Well-Being

In the final set of analyses differences in subjective well-being were examined. The multivariate tests were significant both in late adolescence, $F(2, 979) = 6.88$; $p < .01$; Pillai's trace = .014, and in young adulthood, $F(7, 370) = 2.35$; $p < .05$; Pillai's trace = .043. Specifically, in late adolescence, participants in the premature group reported higher negative affect, $F(1, 980) = 13.73$, $p < .001$, $\eta^2 = .014$, but no differences in positive affect were found, $F(1, 980) = 1.93$, *ns*. In young adulthood, no significant effects were found for the affective components of subjective well-being – negative affect, $F(1, 376) = 2.49$, *ns*, and positive affect, $F(1, 376) = .00$, *ns*. However, significant differences between the premature and the normative group emerged for general satisfaction with life, $F(1, 376) = 6.41$, $p < .01$, $\eta^2 = .017$, satisfaction with work, $F(1, 376) = 8.12$, $p < .01$, $\eta^2 = .021$, and satisfaction with finances, $F(1, 376) = 12.88$, $p < .01$, $\eta^2 = .033$. Participants in the premature group generally reported lower levels of satisfaction (see Figure 3). No difference emerged for satisfaction with family, $F(1, 376) = .22$, *ns*, and satisfaction with leisure, $F(1, 376) = .317$, *ns*.

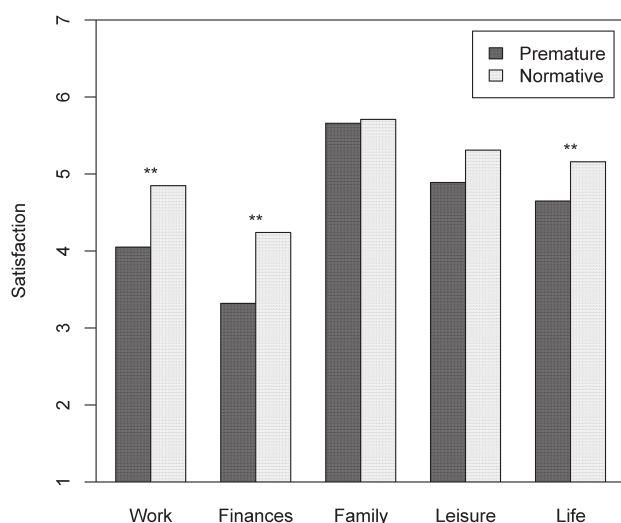


Figure 3. Young adulthood: General and domain-specific satisfaction (premature vs. normative group).

Discussion

The present studies showed that premature curfew autonomy was associated with developmental risks in late adolescence as well as young adulthood. Thus, timing mattered in the development of adolescents' behavioral autonomy. In contrast to earlier research we examined a broad variety of longer-term correlates and thus were able to obtain a differentiated perspective on prematurity. Developmental risks were present not in all areas of functioning but pertained to specific aspects.

Sociodemographic Characteristics

First, only a minority (about 18% and 16%) of participants in the two samples reported premature curfew autonomy. Premature individuals did not experience socioeconomic disadvantage nor had they lower educational aspirations in late adolescence, but they attained lower levels of education in young adulthood. This can be explained drawing from Dornbusch, Ritter, Mont-Reynaud, and Chen (1990), who found that premature autonomy was associated with lower school effort and attainment. As became clearer in the following, premature participants engaged in various other developmental domains, but maybe not so much in school. Finally, premature participants were somewhat more likely to come from East Germany – a finding, which emerged in young adulthood, but not in late adolescence. Maybe this was the result of selective migration: Normative participants in East Germany (with higher education) possibly were more likely to move to the economically more well-off Western part of the country. However, this clearly is only a speculation from our side.

Developmental Challenges of Late Adolescence and Young Adulthood

In the second set of analyses, developmental challenges in late adolescence and young adulthood were analyzed. First, premature curfew autonomy was associated with accelerated autonomy development in most other domains. Individuals who had experienced premature curfew autonomy also visited discotheques earlier, drank alcohol earlier, and had their first sexual experiences earlier. Interestingly, however, they did not differ from their normative peers regarding the timing of their first vocational preferences. These findings demonstrate that we were reasonably accurate in studying premature curfew autonomy as an indicator of premature behavioral autonomy more broadly conceived (Feldman & Wood, 1994; Fuligni, 1998; Zhang & Fuligni, 2006). Moreover, the findings supported a differentiated view of behavioral autonomy as comprised of privileges (i.e., curfew autonomy, sexual experiences), on the one hand, and responsibilities (here we were limited to only one indicator, i.e., vocational preferences), on the other (Feldman & Wood, 1994; Galambos & Tilton-Weaver, 2000). We have developed this distinction between privileges and responsibilities more thoroughly elsewhere (Haase et al., 2008). In this article, we showed that only privilege aspects of behavioral autonomy, such as deviant behavior, were associated with developmental risks in adolescence, but not responsibility aspects. This distinction may also help to understand why early work experiences – another aspect of autonomy responsibilities – are not associated with maladjustment (Elder, 1974; Mortimer, & Staff, 2004). We suppose that the longer-term risks of premature behavioral autonomy may pertain specifically to autonomy privileges, not to responsibilities and posit this as a question for future research.

In late adolescence, premature curfew autonomy was associated with various aspects of psychosocial maladjustment. A possibly adaptive view of premature behavioral autonomy was not supported (see Feldman & Rosenthal, 1991). The most pronounced association was found with deviant behavior, which has repeatedly emerged as a correlate of early behavioral autonomy (e.g., Beyers & Goossens, 1999; Dishion et al., 2004; Smetana et al., 2004). Converging with previous studies (e.g., Feldman & Wood, 1994) premature individuals also had poorer relationships with their parents indicated by lower disclosure, which appears to be a key factor in the parent-child interaction fostering adaptive development (Stattin & Kerr, 2000). Moreover, premature individuals experienced higher identity diffusion (Marcia, 1980) and thus were “not sure about what I want to do with my life, I simply let things happen.” Apparently, their early going out on their own had not served their identity exploration; and they had not really mastered what Erikson (1968) regarded as another central developmental task of adolescence: “[F]rom among all possible and imaginable relations, [the young person] must

make a series of (...) commitments” (p. 245). Moreover, premature individuals reported lower planfulness (Clausen, 1991) – potentially indicating a lack of future orientation and goal engagement (e.g., Haase, Heckhausen, & Koeller, in press; Heckhausen, 1999; Nurmi & Salmela-Aro, 2006), which may constitute an underlying mechanism accounting for longer-term maladaptive continuity. Importantly, premature curfew autonomy was not associated with subjective adult status. Thus, despite having attained important autonomy privileges earlier, premature individuals did not feel more adult. Maybe it is not so much acquiring privileges, which makes individuals regard themselves as adults, but taking over responsibilities, as has been put forth by Arnett (2000).

In young adulthood, we obtained evidence for maladaptive continuity for some, but not for all correlates. Challenging the notion of uniform disadvantage, no differences emerged between premature and normative participants regarding normative transitions to adulthood (see Roisman, Masten, Coatsworth, & Tellegen, 2004). At first glance, premature individuals appeared similarly adjusted as their normative peers with regard to the two central developmental tasks of adulthood, work and love (Freud, 1930).

These findings as such, though, did not reveal anything about the quality and stability of their adjustment in the domains of work, family, and public life. In fact, compared to their normative peers, premature individuals reported remarkably higher demands of social change. That is, they had experienced more challenging changes within the last 5 years in these domains. The association was closest in the work domain where premature individuals indicated, for example, that it had become “more difficult to plan my career path,” that their career plans were “more often obstructed by unforeseen events and circumstances,” and that the “risk of losing my job has increased.” As noted above, this effect was not due to a higher prevalence of unemployment. We suggest that premature participants possessed fewer resources, both relating to cultural capital as well as to psychosocial resources, and hence were less able to counter the demands of social change adequately (see Pinguart & Silbereisen, 2004; Silbereisen & Pinguart, 2008; Wrosch & Freund, 2001).

Subjective Well-Being

The third research question pertained to subjective well-being. A considerable body of empirical work (e.g., Heckhausen, 1999) has demonstrated that an off-timing of developmental tasks is associated with lower well-being; and we found well-being impairments in late adolescence and in young adulthood among individuals who had experienced curfew autonomy prematurely. However, not all facets of subjective well-being (Diener, 2000) were affected in similar ways. In late adolescence, premature individuals reported higher negative affect converging with previous studies (Smetana et al., 2004), but no attenuation in positive

affect was found. In young adulthood, neither negative nor positive affect were lower in the premature group. This is important as particularly positive affect constitutes an important psychological resource (e.g., Fredrickson & Losada, 2005). However, in young adulthood the premature group expressed lower satisfaction with work, their financial situation, and life in general. Thus, premature curfew autonomy in adolescence appeared to be particularly closely associated with later disadvantages in educational attainment, higher demands in the work domain, and lower work satisfaction – all central aspects of adult socialization (Silbereisen et al., 2007).

Limitations

The present studies undoubtedly bear limitations. The first and foremost limitation refers to the concurrent rather than cross-lagged associations analyzed given the design of the studies. To date, prospective longitudinal studies on the consequences of premature curfew autonomy that extend beyond adolescence are not available, and the present study is no exception. Our studies comprised the same birth cohorts for which equivalence was demonstrated with regard to gender, region, and transition timing, but longitudinal effects could not be established. Moreover, data were gathered from two cohorts at two different times, in 1996 and 2005; hence, history effects cannot be excluded. However, we deem these effects rather small. Whereas significant social change occurred in the first years after German unification in 1990 (Silbereisen, 2005), the pace of change was significantly slowed down between 1996 and 2005 and affected only selected individuals to a high degree (Tomasik & Silbereisen, 2008). Nevertheless, we hope that the present studies inspire future research to investigate antecedents and consequences of premature behavioral autonomy beyond the transition into adulthood using longitudinal designs.

Moreover, measurement limitations have to be noted. We exclusively used self-report data and a retrospective measure of transition timing. We accepted this retrospective assessment in order to be able to examine correlates beyond the transition into adulthood. Retrospective data appear reasonably reliable and valid for clearly definable events such as developmental transitions (Brewin et al., 1993; Cohen et al., 2005; Rutter et al., 1998), particularly when referring to events that occurred during adolescence (e.g., Conway et al., 2005). Moreover, in the present studies, late adolescents and young adults did not differ in the retrospectively reported mean timing of their curfew autonomy. Thus, telescoping effects (Rutter et al., 1998) were absent, which supported the accuracy of our retrospective measures. In addition, even if retrospective, the assessment of *real* transition timing might have advantages over measures used in previous studies, which often have mixed real transition ages and age expectations for transitions yet to come (e.g., Feldman & Quat-

man, 1988). Finally, although we were able to support the validity of our 1-item measures by demonstrating their convergence with more established multiple-item measures, we have to acknowledge the limitations. For example, we were not able to study identity foreclosure because of measurement limitations.

Conclusions and Research Perspectives

Research shows that an off-timing of developmental tasks is maladaptive (e.g., Heckhausen et al., 2001; Salmela-Aro et al., 2001; Schulenberg et al., 2004); and we demonstrated this for premature curfew autonomy. When individuals experienced this transition too early, they had to pay costs, not only in the short, but also in the long run. However, open questions remain. Does premature curfew autonomy create risks for adolescents, which would otherwise not be present? Drawing from the present findings, one may speculate about the possible chain of events. Premature curfew autonomy could pave the way toward engagement in deviant behavior accompanied by identity struggles and lower planfulness, which could eventually result in lower educational attainment and maladjustment, particularly in the work domain. Given such a possibly negative impact of premature curfew autonomy one may feel the need to intervene (e.g., Schleifer v. City of Charlottesville, 1998). However, this conclusion is not warranted. We can only speculate about longitudinal effects and mediating processes; and we do not know whether premature curfew autonomy is merely an outcome of already maladaptive development. We are looking forward to future longitudinal research taking up on these questions.

In sum, the present studies showed that premature individuals neither grew up in disadvantaged conditions nor had lower educational aspirations, but they attained lower levels of education in young adulthood. Premature individuals appeared less adjusted regarding various developmental challenges in late adolescence and young adulthood; and well-being impairments persisted even in young adulthood. We conclude that a premature timing of developmental tasks in adolescence – which may well pertain not only to premature curfew autonomy – may be associated with risks that extend beyond adolescence into young adulthood.

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Appendix

Demands of Social Change

As compared to 5 years ago . . .

Work

- . . . it has become more difficult to plan my career path.
- . . . it is more likely that I now have to reckon with involuntarily working only part-time instead of full-time.
- . . . the risk of losing my job has increased.
- . . . my career plans are more often obstructed by unforeseen events and circumstances.
- . . . it is now more likely that I am forced to accept a job for which I am overqualified.
- . . . there are currently less job opportunities for me.

Family

- . . . I now have to take more things into account when it comes to decisions concerning relationships with my partner or family.
- . . . it is more difficult to decide, given my present life circumstances, whether I want to have a(nother) child or not.

. . . the knowledge and experiences of my parents now provide less sense of direction in my life.

. . . it is more likely the case that I now have to reckon with being or once again becoming financially long-term dependent on my parents.

. . . my personal contacts are now less reliable.

. . . it is now more likely that my partner could leave me.

Public Life

. . . my own personal view of life is now more strongly challenged by other philosophies and religious convictions.

. . . political parties are now less able to offer me answers to important questions.

. . . there are now less points of reference for me concerning what is right and wrong.

. . . my everyday life is now more strongly influenced by customs and traditions from foreign cultures.

. . . I am now more greatly restricted in my everyday behavior by political and religious extremism.

. . . it is now more likely to happen that modern possibilities of paying without cash lead me to lose track of my finances.