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## Adolescents' transitions to behavioral autonomy after German unification

Claudia M. Haase\*, Rainer K. Silbereisen, Matthias Reitzle

*Department of Developmental Psychology and Center for Applied Developmental Science,  
University of Jena, Am Steiger 3/1, D-07743 Jena, Germany*

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### Abstract

The present study examined the timing of behavioral autonomy transitions in two same-aged cohorts of East German adolescents assessed in 1991 and 1996. An earlier timing of autonomy privileges was associated with higher deviant behavior. A later timing of autonomy privileges and responsibilities was linked to structural constraints, specifically, to parental unemployment. Between 1991 and 1996 significant timing differences were observed for some autonomy transitions in the East, implying an adaptation to Western timetables. Our findings illustrate the plasticity of autonomy transitions under conditions of social change.

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*Keywords:* Behavioral autonomy; Social change; Developmental tasks; Timing; Unemployment

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When the Berlin wall fell in 1989 East Germany was in a state of vast upheaval. Following German unification in 1990 all societal institutions in the East underwent quick and radical change, which was accompanied by changes in norms, cultural products, and symbols (cf. Calhoun, 1992). The economy was in such turmoil that scholars referred to it as the “great depression [...] occurring in East Germany” (Akerlof, Rose, Yellen, & Hesselius, 1991, p. 85).

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\*Corresponding author. Tel.: +49 3641 945205; fax: +49 3641 945202.

*E-mail addresses:* [claudia.m.haase@uni-jena.de](mailto:claudia.m.haase@uni-jena.de) (C.M. Haase), [rainer.silbereisen@uni-jena.de](mailto:rainer.silbereisen@uni-jena.de) (R.K. Silbereisen), [matthias.reitzle@uni-jena.de](mailto:matthias.reitzle@uni-jena.de) (M. Reitzle).

Dating back to the seminal work of Elder (1974) on the *Children of the Great Depression* researchers have been interested in human development in times of social change (e.g., Pinquart & Silbereisen, 2004; Stewart & Healy, 1989). Research demonstrates that social change does not only affect the timing of established developmental transitions (Silbereisen, 2005). Social change may also foster the emergence of new developmental stages and tasks (Arnett, 2000; Mortimer & Larson, 2002; Roisman, Masten, Coatsworth, & Tellegen, 2004). Recent studies show that a variety of developmental outcomes in adolescence are affected by social change including self-esteem (Twenge & Campbell, 2001), family relations (Zhang & Fuligni, 2006), and educational and occupational aspirations and attainment (Silbereisen, Best, & Haase, 2007).

To our knowledge, the plasticity of adolescent autonomy timing under social change has rarely been studied. Acculturation research has shown that the timing of autonomy transitions is sensitive to cultural change (e.g., Feldman & Rosenthal, 1994; Roer-Strier & Rivlis, 1998; Schmitt-Rodermund & Silbereisen, 1999). Studying Chinese adolescents, Zhang and Fuligni (2006) showed that age expectations for behavioral autonomy are also affected by social change. The aim of our paper was to examine the plasticity of adolescents' transitions to behavioral autonomy in the context of East Germany after unification.

### **Behavioral autonomy in adolescence: Privileges and responsibilities**

Gaining autonomy is a central developmental task in adolescence (Erikson, 1959; Kağıtçıbaşı, 2005; Steinberg & Silverberg, 1986). We focused on behavioral autonomy, which refers to the adolescent's freedom to self-regulate behaviors and actions as part of a process toward increasing self-governance (Feldman & Wood, 1994) and found it useful to differentiate between autonomy privileges on one hand and autonomy responsibilities on the other drawing from Feldman and Wood (1994) and Galambos and Tilton-Weaver (2000). Whereas autonomy privileges refer to rights such as having no curfew when going out at night, autonomy responsibilities refer to duties such as doing household chores (e.g., Feldman & Wood, 1994; Galambos & Tilton-Weaver, 2000). We deem privilege transitions more private in nature whereas we regard responsibility transitions as more closely linked to structural constraints (see Dekovic, Noom, & Meeus, 1997).

In the present article we focused on adolescents' first discotheque visit and when they determined their curfews themselves for the first time as examples of *autonomy privileges*. Many empirical studies link an earlier timing of privileges than is usual to higher deviant and problem behavior (e.g., Beyers & Goossens, 1999; Dishion, Nelson, & Bullock, 2004; Lamborn, Dornbusch, & Steinberg, 1996). Various theories (Jessor, 1987; Moffitt, 1993) conceptualize adolescent problem behavior as attempts to acquire symbolic adult status. An early acquisition of autonomy privileges might serve the same function. Studies suggest that pseudomaturity—adolescents feel mature but lack genuine psychosocial maturity (cf. Greenberger, 1984)—constitutes the underlying link between early privilege timing and problem behavior (Galambos, Barker, & Tilton-Weaver, 2003; Galambos & Tilton-Weaver, 2000; Newcomb, 1996). Besides problem behavior, other variables are also known to be associated with privilege timing. A prominent example is child disclosure. Studies (e.g., Feldman & Rosenthal, 1991; Schmitt-Rodermund & Silbereisen, 1999)—labeling the construct parental monitoring while, in fact,

assessing child disclosure (see Stattin & Kerr, 2000)—show that lower disclosure is associated with earlier privilege timing.

In contrast, the timing of *autonomy responsibilities* has neither been linked to deviant behavior nor disclosure (Feldman & Quatman, 1988; Galambos et al., 2003). An earlier timing of responsibilities—we studied two example transitions with regard to participation in household labor—has been conceptualized as resulting from (1) socialization practices or (2) structural constraints that prevent adults from performing household duties. The latter notion has received stronger empirical support (Blair, 1992). Working parents can devote less time to household labor, and children compensate for this. Parental employment hence was expected to be associated with an earlier timing of adolescents' responsibilities. Family size has also been linked to household labor with children performing more household work in larger families (Bianchi & Robinson, 1997). Thus, in larger families adolescents were expected to experience responsibility transitions earlier.

### Social change in East Germany after unification

We expected differences in the timing of responsibility transitions comparing East German adolescents shortly after unification and later into the unification process drawing from a cross-cultural research method: Feldman and Rosenthal (1994) showed that the same variables that were associated with autonomy timing *within* a culture also accounted for differences in autonomy timing *between* cultures. Research on social change has often compared birth cohorts growing up under differing social conditions (e.g., Elder, 1974; Silbereisen et al., 2007). Adapting Feldman and Rosenthal's method we studied different birth cohorts instead of different cultures. We expected that the same variables associated with interindividual differences in autonomy timing within a cohort would also help to understand timing differences between cohorts. Clearly, such a hypothesis merits caution as findings at the individual level do not necessarily match findings at the aggregate level and vice versa (Robinson, 1950).

Prior work from our research group (for an overview see Silbereisen, 2005), however, found a match between individual and aggregate level for some transitions (e.g., Reitzle & Silbereisen, 2000a). Using a cohort approach, previous work demonstrated considerable shifts in the timing of socio-institutional transitions such as financial independence and leaving home (Silbereisen, Reitzle, & Juang, 2002) and marriage and parenthood (Juang & Silbereisen, 2001) in post-unification East Germany. Shortly after unification, East Germans reported that they had experienced all these transitions earlier than their Western age mates. In the course of unification Eastern timetables adapted to Western timing. In the case of financial independence, for example, this aggregate shift could be explained by an individual-level predictor, namely, unemployment. In contrast, regarding the timing of private transitions, such as romantic experiences (Silbereisen & Wiesner, 2000), no East–West differences were found and no adaptation was observed. Thus, German unification impacted only the timing of developmental transitions, which were linked to social institutions and structural constraints, while private transitions remained unaffected.

Among the structural constraints that changed in the East after unification, unemployment may be the most prominent example. After unification, East Germany—formerly a state with

quasi-full employment and a high share of working mothers—experienced a remarkable rise in unemployment rates over many years, particularly among women (Adler, 2002; Akerlof et al., 1991). In contrast, more private variables supposedly were not affected by unification. Adolescent deviance did not increase in the early years after unification in the East (Mansel & Hurrelmann, 1998). Likewise, we expected no differences in disclosure drawing from Forkel and Silbereisen (2001).

### The present study

In the present study we examined the timing of adolescents' transitions to behavioral autonomy after unification in East Germany. Data were gathered from same-aged comparable cohorts of adolescents in 1991 and 1996. Societal conditions in 1991 still somewhat resembled the situation before the fall of the Berlin wall—except for the new phenomenon of unemployment—whereas a lot of change had occurred in 1996. We expected no differences in the timing of autonomy privileges between 1991 and 1996 as we deemed these transitions private in nature and as we expected no differences in the associated variables. In contrast, we expected a later timing of responsibilities in 1996 compared to 1991 due to their association with parental unemployment, which increased after unification. Specifically, we examined the following questions.

First, we analyzed variables associated with the timing of autonomy privileges and responsibilities in the East in 1991 and 1996. We expected higher deviant behavior and lower disclosure to be associated with an earlier timing of privileges whereas we hypothesized parental unemployment and a larger family size to be linked to an earlier timing of responsibilities.

Second, mean differences between 1991 and 1996 were examined in these associated variables in East Germany. No differences were expected regarding deviant behavior, disclosure, and family size. However, we expected higher levels of parental unemployment in 1996.

Third, we analyzed median differences in the timing of privileges and responsibilities between 1991 and 1996 in East Germany. We expected no timing differences with regard to privileges. In contrast, we hypothesized a later timing of responsibilities in 1996.

We focused on comparing autonomy timing in East Germany, but we included data from West Germany in our analyses to explore a fourth question: Did East German adolescents become more similar to Western German adolescents in the course of unification? Finally, gender differences were explored as meta-analytic findings show that adolescent girls achieve various developmental milestones earlier than boys (Cohn, 1991) including behavioral autonomy (e.g., Beyers & Goossens, 1999).

### Method

Data from two same-aged cohorts of adolescents assessed in 1991 and 1996 were analyzed. The 1991 data were collected as part of the Shell Youth study. Starting in 1953, the Shell Youth studies form a series of representative inquiries on adolescents in West, and since German unification, in East Germany. The 1996 study was launched by an interdisciplinary research consortium and mirrored the 1991 study.

## Participants

We analyzed data from quota samples collected from East and West German adolescents aged 13–19 years in 1991 and 1996. Quota sampling (e.g., Henry, 1990) ensures relative sample representativeness. First, an overall sample size was established following usual sizes for nationally representative youth studies. Then, the sample was stratified to match the population of German adolescents based on the demographic characteristics of federal state, community size, age, education, and gender. Participants from East Germany were oversampled in order to secure statistical power for East–West comparisons. Regarding all other characteristics distributions in the sample mirrored the population distributions. Finally, interviewers from regions across Germany received specific demographic profiles based on these stratification variables (e.g., 13–15 years old females from a major city in the federal state of Saxony attending the highest school-track) and recruited 4–8 adolescents per profile through various community contacts. More sampling information can be found in Reitzle and Silbereisen (2000b).<sup>1</sup>

Despite considerable efforts to ensure full equivalence between the 1991 and the 1996 sample, small differences were observed. Mothers' ( $t(2867.36) = -5.84, p < 0.001$ ) and fathers' ( $t(2839.96) = -4.68, p < 0.001$ ) education as well as community size ( $t(2874.38) = -5.36, p < 0.001$ ) were slightly higher in the 1996 sample. Consequently, all analyses were controlled for parental education and community size.

East–West migrants ( $n = 38$ ) were excluded from the present analyses resulting in a sample size of 542 East German adolescents in 1991 (53.3% females) and 717 East German adolescents in 1996 (50.8% females). Adolescents' median age was 16 years. We further analyzed data collected from Western German adolescents in 1991 ( $n = 1019, 52.3\%$  females) and 1996 ( $n = 673, 50.1\%$  females).

## Measures

### *Timing of transitions to behavioral autonomy*

The timing of four transitions to behavioral autonomy was analyzed using four items selected from the Teen Timetable (Feldman & Quatman, 1988), two reflecting *autonomy privileges* (“When did you go to a *discotheque* for the first time?”; “When did you determine yourself when to go out and come home for the first time?”. i.e., *own curfews*) and two reflecting *autonomy responsibilities* (“When did you take over *household chores* for the first time?”; “When did you prepare *meals* for yourself for the first time?”). Adolescents reported whether they had already experienced this transition and if so, at which age (in years).

Previous research supports the reliability and validity of these items. First, 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;

<sup>1</sup>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 from [www.gesis.org](http://www.gesis.org) (1991 data: study number 2323; 1996 data: study number 3434).

Fuligni, 1998; Schmitt-Rodermund & Silbereisen, 1999; Zhang & Fuligni, 2006). Most of these studies included almost exclusively privilege items. When both responsibilities and privilege items were considered separately, both factors yielded internal consistency and showed differential correlates (Feldman & Wood, 1994; see also Feldman & Quatman, 1988). Second, the present items with their retrospective phrasing were drawn from the Shell Youth studies, which have a long tradition in the retrospective assessment of transition timing (Jugendwerk der Deutschen Shell, 1981, 1985). For example, regarding the timing of first own curfews, transition ages reported in the present study (see results section) mirrored results from previous Shell Youth studies: Adolescents first decided on their curfew themselves at the age of about 17. Furthermore, later own curfew timing related to a later timing of other autonomy privileges (e.g., first vacation alone) and higher parental support. Third, retrospective data appear reliable and valid, particularly when referring to specific developmental transitions (e.g., Brewin, Andrews, & Gotlib, 1993; Cohen, Kasen, Bifulco, Andrews, & Gordon, 2005).

#### *Personal characteristics*

*Deviant behavior* was assessed by a ten-item scale, which has been used in studies of German adolescents (e.g., Wiesner & Silbereisen, 2003). Participants reported how often they had committed various property, violence, and norm offenses (i.e., shoplifting, getting into a serious fight, wearing crazy clothes, etc.) during the last year (1 = never; 3 = often). Internal consistency was satisfactory (East:  $\alpha = 0.74$  in 1991,  $\alpha = 0.78$  in 1996; West:  $\alpha = 0.79$  in 1991,  $\alpha = 0.82$  in 1996).

*Disclosure* was measured by four items, which were similar to items used by other scholars (e.g., Chen, Greenberger, Lester, Dong, & Guo, 1998). The specific items were: “How often did you tell your mother (father) where you spend your time after school or work?” and “How often did you tell your mother (father) what is going on in your life?”. Answers ranged from (1) never to (4) always. Internal consistency was satisfactory (East:  $\alpha = 0.73$  in 1991,  $\alpha = 0.74$  in 1991; West:  $\alpha = 0.74$  in 1991;  $\alpha = 0.81$  in 1996).

#### *Structural constraints*

In order to measure *parental unemployment* the available item was whether mother or father had experienced unemployment and if so how old the participant had been at that time. In order to capture the unemployment rise in 1996 parental unemployment was only considered if it had occurred after German unification resulting in the 6-year interval. Following Silbereisen et al. (2002) we coded whether adolescents' parents had experienced unemployment six years or less before the transition of interest (0 = no; 1 = yes) in order to ensure temporal precedence of parental unemployment over each transition. We further included *family size* indicated by the number of siblings in our analyses.

#### *Sociodemographic characteristics*

*Gender* was coded as (0) for males and (1) for females. *Mothers' and fathers' education* was coded as (1) for graduation from the lower school tier (8 years of education), (2) for graduation

from the middle school tier (10 years of education), and (3) for graduation from the higher school tier (12 or 13 years of education). We further included *community size* in our analyses (1 = less than 2000 inhabitants; 7 = more than 500 000 inhabitants).

### *Procedure*

In 1991 and 1996, data were collected by trained interviewers from a professional field research institute. Parental consent was obtained for minor participants. Interviews lasted approximately 60 min. Participation was voluntary, and no compensation was paid. Participants who provided their address received a report of the study findings.

## **Results**

Studying transitions is often complicated as not all study participants may have experienced the transition in question at the time of data collection. Omitting these “censored cases” by using ordinary multiple regression results in downward biased estimates of transition timing. In order to avoid such bias, we used Cox regression analyses, a method from the family of survival analyses (Singer & Willett, 2003). In the following, we will report hazard ratios ( $\text{Exp}(B)$ ) as effect size measures. When hazard ratios are below 1, higher values of the independent variable are associated with later transition ages. Values above 1 indicate earlier transition ages. Analyses were controlled for parental education and community size.<sup>2</sup>

### *Interindividual differences in autonomy timing*

#### *Autonomy privileges*

We expected an earlier timing of autonomy privileges to be associated with higher deviant behavior and lower disclosure.

*First discotheque visit:* First we analyzed variables associated with the timing of adolescents' first discotheque visit (see Table 1). Higher deviant behavior was associated with earlier transition ages, except for the East in 1991. Disclosure was not associated with the timing of the first discotheque visit. In the East, parental unemployment was related to a later transition age whereas parental unemployment was not related to transition timing in the West. Girls consistently experienced this transition earlier than boys.

*First own curfews:* Then we analyzed variables associated with the timing of when adolescents first decided on their own curfews (see Table 2). Higher deviant behavior was consistently associated with earlier transition ages in East and West. Lower disclosure was not associated with transition timing, except for the West in 1991. In the East, parental unemployment was associated with a later and higher family size was associated with an earlier timing of this transition in 1991. In 1996, these associations had vanished and now matched the Western pattern where transition

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<sup>2</sup>Converging with Feldman and Rosenthal (1990) and Fuligni (1998), parental education and community size were not associated with autonomy timing with minor exceptions. Only four out of 48 associations were significant at the  $p < 0.05$  level. Correlations between the covariates and variables associated with autonomy timing were  $r = -0.11$  or below. When performing all analyses without covariates the results overall did not change.

Table 1  
Interindividual differences in the timing of first discotheque visit: Cox regressions hazard ratios (Exp(*B*))

Variable	East		West	
	1991	1996	1991	1996
Deviant behavior	1.28	1.84***	1.67***	1.80***
Disclosure	0.93	0.98	0.95	1.01
Parental unemployment	0.21**	0.80*	0.90	0.66
Family size	1.00	0.96	1.03	1.04
Gender	1.28*	1.29**	1.22*	1.24*
Overall $\chi^2$ (df)	25.90(8)**	39.23(8)***	30.70(8)***	31.94(8)***
% censored cases	10.9	16.6	21.3	23.6

Note: Controlled for mothers' and fathers' education and community size.

\* $p < 0.05$ .

\*\* $p < 0.01$ .

\*\*\* $p < 0.001$ .

Table 2  
Interindividual differences in the timing of first own curfews: Cox regressions hazard ratios (Exp(*B*))

Variable	East		West	
	1991	1996	1991	1996
Deviant behavior	1.68**	3.21***	2.51***	1.70**
Disclosure	0.95	0.84	0.80**	0.90
Parental unemployment	0.26***	0.85	0.95	0.72
Family size	1.15*	1.06	1.07	1.12*
Gender	0.85	1.15	0.94	0.88
Overall $\chi^2$ (df)	40.61(8)***	71.99(8)***	76.44(8)***	27.97(8)***
% censored cases	45.0	47.8	43.0	49.8

Note: Controlled for mothers' and fathers' education and community size.

\* $p < 0.05$ .

\*\* $p < 0.01$ .

\*\*\* $p < 0.001$ .

timing was not related to these variables (except for family size in 1996). No gender differences were found.

#### *Autonomy responsibilities*

We expected parental unemployment and a larger family size to be associated with an earlier timing of autonomy responsibilities.

*First household chores.* First we analyzed variables associated with the timing of first household chores (see Table 3). Parental unemployment was associated with later transition ages in the East and in the West in 1996. Family size was unrelated to transition timing in the East, but it was associated with an earlier transition age in the West in 1991. Deviant behavior and disclosure were

Table 3  
Interindividual differences in the timing of first household chores: Cox regressions hazard ratios (Exp(*B*))

Variable	East		West	
	1991	1996	1991	1996
Deviant behavior	0.76	1.09	1.08	0.93
Disclosure	0.95	1.02	1.05	1.04
Parental unemployment	0.06**	0.40***	0.54	0.36**
Family size	0.96	1.05	1.13**	1.05
Gender	1.11	1.15	1.51***	1.57***
Overall $\chi^2$ (df)	28.50(8)***	30.26(8)***	54.11(8)***	43.02(8)***
% censored cases	4.4	2.9	11.7	19.8

Note: Controlled for mothers' and fathers' education and community size.

\*\* $p < 0.01$ .

\*\*\* $p < 0.001$ .

Table 4  
Interindividual differences in the timing of first meals: Cox regressions hazard ratios (Exp(*B*))

Variable	East		West	
	1991	1996	1991	1996
Deviant behavior	1.04	1.21	1.13	1.42**
Disclosure	0.99	0.95	1.01	1.07
Parental unemployment	0.07***	0.62**	0.61*	0.47*
Family size	0.99	1.05	1.11**	1.09*
Gender	1.09	1.26**	1.33***	1.57***
Overall $\chi^2$ (df)	34.92(8)***	44.00(8)***	39.33(8)***	41.71(8)***
% censored cases	3.9	9.5	9.6	15.8

Note: Controlled for mothers' and fathers' education and community size.

\* $p < 0.05$ .

\*\* $p < 0.01$ .

\*\*\* $p < 0.001$ .

unrelated to the timing of this transition. Girls in the West took over household chores earlier than boys whereas no gender differences were found in the East.

*First meals.* We then analyzed interindividual differences in the timing of first meals (see Table 4). Again, parental unemployment was related to a later timing in East and West. Family size was unrelated to the timing of this transition in the East, whereas Western adolescents from larger families reported earlier transition ages. Deviant behavior and disclosure were not associated with transition timing with one exception regarding deviant behavior (West, 1996). In 1991, no gender differences were found in the East. In 1996, gender differences had emerged with girls reporting earlier transition ages in the East as was also found in the West.

Mean differences in associated variables

In the second step we examined mean differences in the variables associated with the timing of privileges and responsibilities in the East comparing the 1991 and 1996 data. Means and, in addition, intercorrelations of associated variables are shown in Table 5. Overall, these correlations were small except for deviant behavior and disclosure where a considerable negative correlation was found.

Table 5  
Means and intercorrelations of associated variables

Variable	East				West			
	1	2	3	4	1	2	3	4
<i>M (SD) 1991</i>	1.54 (0.34)	2.72 (0.65)	24.4 <sup>a</sup>	1.16 (0.95)	1.46 (0.34)	2.79 (0.67)	5.0 <sup>a</sup>	1.17 (0.99)
<i>M (SD) 1996</i>	1.45 (0.33)	2.79 (0.69)	37.7 <sup>a</sup>	1.09 (0.95)	1.44 (0.36)	2.86 (0.74)	9.2 <sup>a</sup>	1.12 (1.05)
1. Deviant behavior <sup>b</sup>	–				–			
2. Disclosure <sup>b</sup>	–0.22***	–			–0.30***	–		
	–0.37***				–0.39***			
3. Parental unemployment <sup>b</sup>	–0.07	0.02	–		0.12***	–0.11***	–	
	0.02	–0.05			0.10*	–0.08*		
4. Family size <sup>b</sup>	0.10*	–0.23***	0.00	–	0.00	–0.07*	0.06	–
	0.02	–0.08*	0.09*		0.06	–0.06	0.03	

<sup>a</sup>Experienced during the past six years in %.

<sup>b</sup>1996 correlations in italics.

\**p* < 0.05.

\*\*\**p* < 0.001.

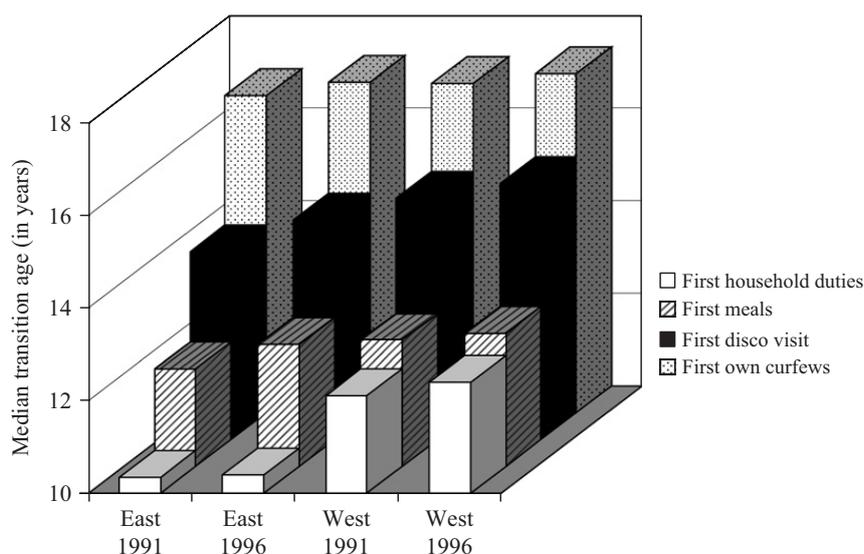


Fig. 1. Median ages for behavioral autonomy transitions.

As predicted, no significant mean differences between 1991 and 1996 were found for disclosure and family size. Against our hypothesis, deviant behavior was lower in 1996 ( $t(1124.49) = 4.65$ ,  $p < 0.001$ ). As expected, parental unemployment was significantly higher in 1996 (37.7%) compared to 1991 (24.4%) ( $t(1225.74) = -5.15$ ,  $p < 0.001$ ).

#### *Median differences in autonomy timing*

In the third step we examined differences in autonomy timing between 1991 and 1996 (see Fig. 1). We analyzed median transition ages in order to indicate at which age 50% of the sample had experienced the transition in question. Median ages are commonly reported in survival analysis (Singer & Willett, 2003). Results did not change when controlling for deviant behavior where a mean difference between 1991 and 1996 had been detected in the previous analysis.

#### *Autonomy privileges*

We expected no differences in the timing of privileges between 1991 and 1996.

*First discotheque visit:* In the East, the median age for the first discotheque visit was 14.06 years in 1991 and 14.73 years in 1996. Against our hypothesis, transition timing was delayed in 1996 ( $\text{Exp}(B) = 0.66$ ,  $p < 0.001$ ). In the West, median transition ages were 15.22 years in 1991 and 15.52 years in 1996.

*First own curfews:* As expected, no significant differences in the median age at which adolescents first decided on their own curfews were found between 1991 (16.86 years) and 1996 (17.15 years) in the East ( $\text{Exp}(B) = 0.86$ ,  $p = 0.077$ ). The median transition age in the West was 17.12 years in 1991 and 17.32 years in 1996.

#### *Autonomy responsibilities*

We expected a later timing of autonomy responsibilities in 1996 compared to 1991.

*First household chores:* In 1991, Easterners took over their first household chores at a median age of 10.33 years. Contrary to our expectation the timing of this transition (median age: 10.39 years) was not delayed in 1996 ( $\text{Exp}(B) = 1.01$ ,  $p = 0.853$ ). In West Germany, median ages for this transition were 12.10 years in 1991 and 12.38 years in 1996.

*First meals:* In 1991, adolescents' median age when they prepared their first meals on their own was 12.10 years in East Germany. The timing of this transition was delayed in 1996 (median age: 12.62 years) as expected ( $\text{Exp}(B) = 0.77$ ,  $p < 0.001$ ). Median transition ages for Western adolescents were 12.72 years in 1991 and 12.87 years in 1996.

## **Discussion**

In the last 20 years, researchers studying adolescent development have devoted increasing attention to contextual influences (cf. Steinberg & Morris, 2001). Social change is a case in point, may it be abrupt changes from a socialist regime to a capitalist democratic system as considered in the present paper or more subtle trends towards individualism, pluralization, and globalization (Pinquart & Silbereisen, 2004). With this study, we hoped to contribute to the growing literature on human development under social change (e.g., Mortimer & Larson, 2002; Roisman et al., 2004;

Silbereisen et al., 2007; Zhang & Fuligni, 2006). We demonstrated the plasticity of some but not all autonomy transitions after German unification.

### *Autonomy privileges and responsibilities*

We advanced a two-dimensional conceptualization of behavioral autonomy as comprised of privileges and responsibilities (e.g., Feldman & Wood, 1994; Galambos & Tilton-Weaver, 2000). Consistent with our expectations, privilege transitions constituted rather private transitions, whereas responsibility transitions were more closely linked to structural constraints.

Deviant behavior showed a strong association with privilege timing (except for discotheque timing in 1991). This finding converges with prior research and theoretical approaches (e.g., Dishion et al., 2004; Jessor, 1987; Moffitt, 1993). Disclosure was not associated with privilege timing, contrary to our hypothesis, but post-hoc analyses revealed univariate associations.<sup>3</sup> Although we could not directly assess pseudomature orientations (Newcomb, 1996) we suggest that adolescents who are aiming for adult status mimic adult behaviors, both legal and illegal, which might explain the association between higher deviance and earlier privilege timing.

At the same time, as suggested by Galambos et al. (2003) this did not coincide with an earlier timing of responsibilities. In fact, regarding responsibilities, no associations were found with deviant behavior and disclosure.<sup>4</sup> In contrast, as expected, responsibility timing was linked to parental unemployment: Adolescents whose parents had become unemployed took over responsibilities at later ages. Note that Elder (1974) had found for the depression era of the 1930s, that particularly boys from economically deprived families took over responsibilities at *early* ages (e.g., via part-time jobs). In contrast to Elder's study, however, the degree of economic hardship experienced by East Germans was considerably smaller (Forkel & Silbereisen, 2001). Regarding family size, results were less unanimous. Significant associations with responsibility timing were found only in some cases (cf. Bianchi & Robinson, 1997).

The link between parental unemployment and autonomy timing deserves particular attention. In the West, later responsibility timing was related to parental unemployment as expected, whereas parental unemployment was associated with a later timing of *all* four autonomy transitions in the East. Prior research from our work group showed that in East Germany parental unemployment was also associated with a later timing of other autonomy transitions (Silbereisen et al., 2002). One might suspect that decreases in involved parenting mediated the effect of parental unemployment on later adolescent autonomy development, similar to processes put forth in the economic stress model (Conger et al., 1993). However, previous (Forkel & Silbereisen, 2001) and present findings (see Table 5) did not support direct links between parental unemployment and parent–child relations in the East (for other “anomalies” in the East see also Sharma & Silbereisen, 2007). Thus, at this point interpretations have to remain speculative.

<sup>3</sup>Consistent with our expectation, univariate analyses revealed associations between disclosure and privilege timing (disco timing:  $\text{Exp}(B) = 0.89$ ,  $p < 0.001$ ; curfew timing:  $\text{Exp}(B) = 0.76$ ,  $p < 0.001$ ) but not responsibility timing (meals timing:  $\text{Exp}(B) = 1.03$ ,  $p = 0.385$ ; household duties timing:  $\text{Exp}(B) = 0.97$ ,  $p = 0.241$ ) controlling for parental education and community size.

<sup>4</sup>One exception was found, a small association between meals timing and deviant behavior in the West in 1996, which we are reluctant to interpret.

### *Comparing East German adolescents in 1991 vs. 1996*

In order to elucidate the effects of social change on autonomy timing after German unification we compared same-aged cohorts of adolescents assessed in 1991 and 1996. Analyzing differences in the variables associated with autonomy timing we found that parental unemployment indeed was dramatically higher in 1996 compared to 1991. As expected, no differences across time were found regarding family size and disclosure. Contrary to our hypotheses deviance levels were somewhat lower in 1996. Maybe shortly after unification deviance peaked in the East triggered by the new freedom and adapted in the following years.

Furthermore, we found that the timing of some but not all autonomy transitions differed between 1991 and 1996 in the East. Regarding privilege timing, no differences were found in 1996 for curfew timing, as expected and consistent with our previous research (e.g., Silbereisen & Wiesner, 2000). However, we observed an unexpected delay of discotheque timing in 1996, which from hindsight probably was due to a change in the event itself. As a new import from the West, professional and commercialized “discos” had opened in the East after unification, where formerly discotheques were organized by the state-run youth organization under adult supervision and hence were more accessible for younger adolescents.

Regarding responsibility timing, we found the expected delay in 1996 with regard to the timing of first self-prepared meals, converging with our previous work (Silbereisen, 2005). Before unification many parents had been working and their children needed to take over responsibilities at early ages. We assume that, in the course of unification, due to increasing unemployment, more parents and especially mothers, stayed at home and took over these household chores themselves so that their children took over responsibilities later. However, no differences in the timing of first household chores emerged. Note that East German adolescents experienced this transition at the average age of 10 whereas study participants on average were about 16 years old. Therefore, a considerable share of adolescents surveyed in 1996 had already experienced this transition *before* unification, which might explain why no delay was observed.

In sum, we observed differences in the timing of some autonomy transitions and differences in some variables associated with the timing of these transitions. In the case of first meals one might speculate that the observed later median timing in 1996 was due to higher mean-levels of unemployment in 1996, consistent with the relationship at the individual level. However, our expectation that individual-level associations would help to understand mean-level differences across time was not consistently supported (see, for example, discotheque timing).

### *Adaptation to the West*

Finally, we had been interested in whether East German adolescents became more similar to their Western peers in the course of unification. Acculturation studies have observed such adaptation for autonomy timetables (e.g., Feldman & Rosenthal, 1990). We found that regarding all transitions where timing was delayed in 1996 this shift implied an adaptation to the later Western timetables. Moreover, whereas no gender differences in the timing of responsibilities were found in the East in 1991, one emerged in 1996 and now matched the Western pattern where girls took over responsibilities consistently at earlier ages than boys (Cohn, 1991). All in all, it seems remarkable that these adaptation processes occurred within only five years.

### Limitations

Shortly after German unification few studies on adolescent development were conducted, probably because researchers were unprepared for the events like everyone else. Lack of time for a more rigorous study planning might account for some of the undoubted limitations of the present study.

First, we used a cohort comparison design. Although cohort comparisons are often utilized in research on social change (e.g., Elder, 1974; Silbereisen et al., 2007), this study design does not allow for an investigation of causal effects. Accordingly, we framed our research questions as investigations of “associations”, not of causal effects.

Second, our data were solely based on self-report and, in some cases, on retrospective reports. Retrospective data, however, appear reliable and valid (Brewin et al., 1993; Cohen et al., 2005). A retrospective assessment of *real* transition timing might even prove beneficial. Previous studies often have mixed real transition ages (when the transition had already occurred) and age expectations (when the transition had not occurred yet), which may be problematic as real ages and age expectations do not necessarily coincide, particularly not under social change (e.g., Modell, 1980).

Third, whereas our coding of parental unemployment ensured temporal precedence of this event over each transition, deviant behavior and disclosure were assessed concurrently and retrospectively for the last year, respectively. However, deviant behavior and disclosure exhibit considerable temporal stability over the course of adolescence (Dekovic, Buist, & Reitz, 2004; Loeber et al., 2000), which might support the validity of our findings. Finally, we were lacking a number of interesting measures, for example, of pseudomaturity or more specific social-change related challenges.

### Outlook

Today, adolescents across the globe face a multitude of challenges brought about by changes in the social, political, economic, and religious sphere (Mortimer & Larson, 2002). Given that job uncertainty and unemployment are increasing in many countries (e.g., Blossfeld, Klijzing, Mills, & Kurz, 2005) we wonder about the consequences for adolescent development (cf. Haase, Heckhausen, & Köller, in press). Besides parental unemployment, future studies may investigate other variables linked to autonomy timing such as value orientations (e.g., Feldman & Rosenthal, 1994; Feldman & Wood, 1994), which may also be affected by social change. Furthermore, it would be interesting to examine the consequences of on- and off-timing (see Heckhausen, 1999; Weichold, Silbereisen, & Schmitt-Rodermund, 2003) of adolescents' behavioral autonomy under social change.

In sum, the present study has implications for the conceptualization of behavioral autonomy in adolescence as comprised of privileges as well as responsibilities. Converging with previous studies we showed that the timing of some autonomy transitions in the East adapted to Western timing in the course of unification. Our findings corroborate the notion of plasticity of developmental transitions under conditions of social change and underline the contextual embeddedness of adolescent development.

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