Supportive parenting and adolescent adjustment across time in former East and West Germany

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Using a 3-year longitudinal data set, we examined the effects of consistently versus inconsistently supportive parenting on several aspects of adolescent adjustment. Supportive parenting was a multidimensional construct which included parental sensitivity, predictability and involvement. The sample consisted of 283 German early adolescents (mean age = 11.4 years, S.D. = 1.2 at time 1) from former East (n = 97) and West (n = 186) Germany. As hypothesized, adolescents who reported their parents to be consistently supportive (e.g. supportive for at least two points in time) had lower levels of depression and delinquency, higher levels of self-efficacy and did better in school over the 3-year period than adolescents who reported their parents to be inconsistently supportive (e.g. supportive at only one time point or less). The results showed that there were no significant interactions between region and supportive parenting, indicating that the effects of consistently supportive parenting “worked” in a similar manner in both contexts of former East and West Germany. Results also reveal that supportive parenting is not necessarily a stable phenomenon, but may fluctuate from year to year.

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Introduction

The stylistic component of parenting (i.e. attitudes communicated through behaviours that create the emotional climate for parenting) and also the more specific practices of parenting that encourage positive social development in children and adolescents, have been widely studied during the last few decades (Darling and Steinberg, 1993). Authoritative parenting (demonstrating warmth, firmness and promoting autonomy) (Baumrind, 1989, 1991), especially, has received much of this attention, because it has been consistently linked to positive adjustment in children and adolescents. For instance, studies have found that children and adolescents from authoritative homes score higher in academic achievement measures, show healthier psychosocial adjustment and engage in lower levels of delinquency (Dornbusch et al., 1987; Lamborn et al., 1991; Steinberg et al., 1991).

In addition to the specific dimensions that constitute authoritative parenting, other types of positive or supportive parenting have also been investigated. For example, parental sensitivity, predictability and involvement have been targets of research. Each of these three aspects of parenting has been found to play an important role in the socialization outcomes of children and adolescents.

Parental sensitivity has been associated with similar constructs such as warmth, acceptance and responsiveness (Schaefer, 1959; Maccoby and Martin, 1983; Rothbaum and Weisz, 1994). These terms imply a positive interactive relationship style between the
parent and child. There is ample evidence to establish that these types of positive acceptance demonstrated by the parent are key contributors in predicting child outcomes (Maccoby and Martin, 1983). As an example, Rothbaum and Weisz’s (1994) meta-analysis of 47 studies confirmed that parental acceptance–responsiveness is negatively related to children’s behavioural problems.

Predictability in parenting has also been found to relate to children’s and adolescents’ outcomes (e.g. Patterson and Dishion, 1985). However, predictability can mean various things; for example, it can indicate how predictable parenting is from situation to situation, from time to time, or whether parents’ behaviours contradict their beliefs (e.g. do they “practice what they preach”) (Rothbaum and Weisz, 1994). Unpredictable and contradictory parenting has been related to negative outcomes in children, such as behaviour problems (Patterson and Dishion, 1985).

Parental involvement also contributes significantly to adolescent functioning. This construct is multi-faceted (Barber, 1997) and thus has been defined and operationalized in different ways. For example, in order to measure parental involvement, researchers have included items such as the amount of time parents spend in attending adolescents’ school programs, how much parents help the adolescent in choosing course work (Bogenschneider, 1997), the extent of parental monitoring of homework and after-school activities, time spent discussing school activities, parental guidance in planning careers (Otto and Atkinson, 1997), how much parents ask early adolescents about school performance and activities and the extent to which parents and adolescents discuss current events together (Grolnick and Slowiaczek, 1994). These conceptualizations of parental involvement differ from one another and yet share the common characteristic that the parent is investing time and energy to encourage the development of the adolescent’s abilities. The studies cited above (all of which involved American children and adolescents) have reported that these kinds of parental involvement predict a variety of adolescent outcomes such as school achievement and misconduct behaviours. Similarly, in a sample of East and West German adolescents, parental involvement, defined as monitoring the adolescents’ activities and whereabouts, was positively related to adolescents’ school achievement and psychological well-being (Schwarz and Silbereisen, 1996).

In summary, previous research addressing each of the three domains of parenting described above have found significant and substantial links between these parenting variables and adolescent well-being. In our current study, these domains were combined to form a global supportive parenting construct, based on the work of Schneewind et al. (1985a, b). Other researchers have also aggregated several indicators of supportive parenting to predict adolescent outcomes successfully (e.g. Gest et al., 1993; Pettit et al., 1997). Furthermore, Baumrind (1989) has found that it is useful to consider a combination of several parenting dimensions to predict child and adolescent outcomes rather than analysing each parenting dimension alone.

Almost all the studies involving aspects of parenting and adolescent functioning have utilized a cross-sectional design. For example, researchers focusing on authoritative parenting report positive effects of this specific parenting style which are associated with adolescent functioning, at one point in time (Dornbusch et al., 1987; Lamborn et al., 1991; Steinberg et al., 1991). However, it is possible that parents who exhibit certain parenting behaviours at one point in time may not do so later on. For instance, as a child moves into adolescence parents may decrease their level of control as their child becomes more independent (Roberts et al., 1984). McNally et al. (1991) examined several parenting dimensions
(e.g. control, positive and negative affect) over an 8-year period with a sample of mothers with children aged 7–8 years at the first time point. They found that, although parenting practices were generally stable over time, some practices did fluctuate, increasing or decreasing with age. Their study focused solely on the parent and did not relate these changes in parenting to child functioning.

Other longitudinal studies have measured parenting at one time point to predict adolescent functioning at a later time point. Steinberg et al. (1994) examined how authoritative parenting related to adolescent adjustment and competence over a 1-year period. The results of this study suggest that the positive effects of authoritative parenting remain stable or actually increase across time. They found that, over a 1-year period, adolescents with authoritative parents improved their academic self-conceptions and declined in misconduct behaviours. In other words, over time, adolescents of authoritative parents maintained high levels in most areas of adjustment. However, in some areas they functioned at an even higher level. Concordant with these results are findings from Melby and Conger’s (1996) longitudinal study on the effects of parental involvement. They report that parental involvement acts as a causal mechanism that fosters and contributes to adolescents’ improved academic performance over a span of several years. Pettit et al. (1997) found that supportive parenting (defined as being warm and engaging in proactive teaching, using inductive discipline and being positively involved with their children) exhibited both indirect and direct effects predicting children’s adjustment 7 years afterwards in terms of behavioural problems, social skills and academic performance. In summary, positive parenting has been found to have both concurrent and, perhaps more importantly, long-term effects. Nonetheless, these three studies did not assess whether parenting itself had changed over time.

We were interested, therefore, in examining whether parents who are considered supportive by the adolescent at one time point would still be considered supportive 1 and 2 years later. Furthermore, we wanted to evaluate how consistency in supportive parenting (e.g. being consistently or inconsistently supportive over a span of several years) related to various areas of adolescent functioning. As previous studies have found beneficial effects on adolescent functioning to be associated with supportive parenting, we hypothesized that adolescents with consistently supportive parents over time would exhibit lower levels of depression, lower rates of delinquency, better school grades and higher levels of school self-efficacy compared to those with inconsistently supportive parents.

We included gender as an independent variable in our analyses because of evidence suggesting differences between males and females in the four areas of adolescent functioning in which we were interested. For instance, girls are more likely to show depressive symptoms than boys, especially in adolescence where the gender discrepancy shows the greatest increase (Brooks-Gunn and Reiter, 1990; Avison and Mcalpine, 1992; Hankin et al., 1998). Furthermore, girls report having lower competency beliefs than boys, particularly in areas such as mathematics (Eccles et al., 1998). Despite this, girls tend to achieve better school grades both in U.S. (Kimball, 1989) and German samples (Tiedemann and Faber, 1994; Wilberg, 1997). Finally, there is the well-known gender difference in delinquency rate, with boys being more likely to engage in more delinquent acts than girls (Heimer, 1996; Mears et al., 1998, Triplett and Jarjoura, 1997).

In addition to analysing the effects of supportive parenting on adolescent well-being, we examined whether this relationship differs for adolescents in East and West Germany by testing for significant interactions between region and supportive parenting in predicting
adolescent functioning. In some cases, parenting may have differential effects in the East and West. For instance, Schwarz and Silbereisen (1996) found that higher levels of parental involvement were related to lower levels of adolescent depression in the West, but not in the East. What could explain this lack of association? The family may have been less influential in the East due to denser networks of coordinated socialization agents for adolescents. For instance, the fact that students in the East spent more hours per day in school-related or organized settings than those in the West (Walper, 1996) could explain why parental effects were dampened. Furthermore, a greater percentage of mothers were employed in the East, thus decreasing the time they spent in the home (Kracke et al., 1993; Walper, 1996). Weaker parental effects in relation to adolescent’s political attitudes in the East have been found in Kracke et al.’s study (1993), offering some evidence of East–West differences with regard to the influences of parenting. These findings are in line with the notion that developmental processes may vary depending on the context (e.g. Bronfenbrenner, 1986; Lerner, 1995). Nevertheless, some researchers, such as Bogenschneider (1997), have argued that the current emphasis on the context ignores the fact that there are some processes which exert consistent effects regardless of the specific context. For example, Steinberg et al. (1991) found that, in general, authoritative parenting was positively related to adolescent outcomes (e.g. better school performance, more self-reliance, less anxiety and depression and less delinquency) regardless of the particular niche of the adolescent, as indicated by ethnic group, gender, socioeconomic status and family structure. Given these consistent findings that supportive parenting has positive effects on adolescent development, we hypothesized that the direction and significance of the relationship between consistently supportive parenting and adolescent outcomes are relatively independent of the regional context. Schwarz and Silbereisen (1996) concluded that, although there were a few differences regarding the effects of parental involvement between East and West Germany, parental involvement on the whole had positive effects on adolescents regardless of the specific context.

**Methods**

**Sample**
The sample included 283 German early adolescents (East = 97, West = 186; 60% female) who were between 10 and 13 years of age (mean = 11.4 years, s.d. = 1.2) at the time of the first assessment in 1993 (Wave 1). Subsequent interviews were conducted in 1994 (Wave 2) and 1995 (Wave 3). Only those for whom data at all three time points were available (42%) were selected, out of an original sample of 673. The original sample was stratified according to gender, school track and community size. Former East Germans were oversampled to achieve an adequate sample size for analysis. Parental consent was required for participation and interviews were conducted in the participants’ homes, based on questionnaires developed by the research group.

A majority (88%) of the parents were married and living together and the remaining families consisted of other combinations (e.g. single parents, stepfamilies, widows). Thirty-one per cent of the adolescents were in a college-bound track at school (attending a Gymnasium) while the remaining 69% were in a non-college bound track (attending Hauptschule or Realschule).

Subsequent attrition to Wave 1 was examined. The three-wave participants (stayers) differed from those who were lost to attrition (leavers), in that they were more likely to be
female, to come from intact families and to be from the East. However, the stayers and leavers were not significantly different from one another regarding their age, mother’s level of education, mean levels on the three parenting dimensions or any of the adolescent outcome variables. Thus, there is evidence that the smaller, current study sample did not differ systematically from the original sample on the main variables of interest.

**Measures**

All measures were taken by self-report from the adolescent.

**Depression.** The mean score of the German version (Hautzinger and Bailey, 1993) of Radloff’s (1991) well-known depression scale, consisting of 15 items, was used to measure depression. Adolescents were asked to report how many times they had experienced a certain emotion in the last week; for example, “I felt sad”. They responded on a scale ranging from 0 (seldom/never) to 3 (most of the time/always). A higher score indicated that the adolescent felt more depressed. Cronbach’s alpha ranged from 0.82 to 0.85 in the three waves.

**Delinquency.** This scale consisted of 11 items (based on Lösel, 1975; ZUMA, 1983). Participants were asked to report whether they had engaged in a list of delinquent acts in the past year (e.g. “Have you ever used a weapon that someone of your own age is not permitted to use?”). The responses ranged from 0 (no, not in the last year) to 4 (yes, more than 10 times in the last year). The distribution of responses was highly skewed. As the majority reported having not engaged in these delinquent acts in the past year, and very few reported engaging in these acts more than once, this variable was dichotomized. Those who responded “no” to all 11 items were coded 0 and those who responded “yes” to at least one item were coded 1.

**School grades.** Adolescents were asked to report their school grades for two subjects, German and mathematics. Grades ranged from 1 to 6, with 1 being the highest mark. The average of these two grades was used. These two grades were significantly correlated ($p<0.01$) at all three time points. Correlations ranged from 0.48 to 0.53.

**School self-efficacy.** This scale consisted of 19 items and has been found to correlate positively with self-esteem and negatively with school-related helplessness and achievement anxiety (Schwarzer, 1986). A sample item is, “If I make an effort in school I perform well”. The participants responded on a scale that ranged from 1 (does not apply) to 4 (applies fully). The averaged score of these items was used so that a higher score indicated a higher level of self-efficacy. Cronbach’s alpha ranged from 0.85 to 0.87.

**Parental education.** Adolescents reported the highest level of education that their mothers and fathers had completed. This variable was dichotomized, so that parents with “lower” levels of education had completed up to 9 years of schooling or less. Those who had “higher” levels of education had 10 or more years of schooling and included those who continued on to college. Mothers’ and fathers’ levels of education were significantly related to one another ($\chi^2 = 61.33$, df = 1, $p<0.0001$), thus if one parent had a high level of education, the other was likely to also. For example, of all fathers who had high levels of education, 82% of the mothers did also, and of all fathers who had low levels of education, 69% of mothers did also. Thus, the mothers’ and fathers’ education levels were combined to form a “parental” education level. If one parent had higher level of education than the other, the higher level was chosen to represent parental education.
Supportive parenting. Adolescents were asked about three areas of parenting: sensitivity, predictability and school involvement (Schneewind et al., 1985a, b). They responded to items on a scale ranging from 1 (does not apply at all) to 4 (applies fully). Items were answered separately for mothers and fathers. Several items were recoded so that all parenting items reflected positive parenting. To compare how the adolescents rated their mothers and fathers, two sets of analyses were completed. First, confirmatory factor analyses (CFA) were run for mothers and fathers separately and within each wave using AMOS (Arbuckle, 1997). Originally, 11 parenting items were analysed with CFA. However, the results showed that this primary CFA model fitted the data poorly. We therefore streamlined the model by identifying and removing the weak items, thus ending up with seven items with which to define the three parenting dimensions. The final model, shown in Figure 1, was again tested for mothers and fathers separately within each wave. The results showed that the model fitted the data well and that mothers and fathers had similar factor structures for each wave, corresponding to the three previously identified parenting dimensions.* Furthermore, mothers and fathers shared a similar pattern of correlations between the three parenting dimensions. For example, the average correlations between sensitivity and predictability across the three waves of data were 0.20 and 0.33 for mothers and fathers, respectively, while the average correlations between sensitivity and school involvement were 0.09 and 0.07 for mothers and fathers, respectively, and those between school involvement and predictability were 0.05 and 0.06, respectively. These low correlations indicate that the factors were relatively independent dimensions of parenting (see Appendix A for a list of the final items).

In the second set of analyses, the average score of the items for each dimension was calculated and mothers’ and fathers’ responses regarding the three dimensions were correlated. The results show that they were significantly and positively related at the $p < 0.001$ level, indicating that mothers and fathers were rated similarly by the adolescents. Correlations between adolescent ratings of their mothers and fathers on predictability ranged from 0.87 to 0.90 across the three waves. The correlations for sensitivity ranged from 0.73 to 0.84, and those for school involvement from 0.68 to 0.83. Given the similarity in the factor structures for mothers and fathers and the high correlations between adolescents’ ratings for mothers and fathers, both responses were combined to form an aggregate “parental” measure. Cronbach’s alpha was satisfactory for the dimensions within the parental measure, ranging from 0.80 to 0.86 for sensitivity, 0.80 to 0.85 for predictability and 0.80 to 0.88 for school involvement across the three waves.

Next, for each of the three areas of parenting, the adolescents were divided into two groups: those who on average reported that each parenting statement “applied” or “applied fully” (coded as “2”) compared to those who, on average, reported that each parenting statement “did not apply” or “did not apply at all” (coded as “1”). Then, those who scored 2 on all three areas of parenting were assigned to the supportive group and all the others were assigned to the unsupportive group.

To assess the consistency of supportive parenting, we looked at the pattern of classifications across time. There were eight possible patterns of how parenting had changed over the 3 years. For example, some adolescents had reported their parents to be supportive at times 1 and 2, but not at time 3. Less than half of the parents (41% in the West and 32%...
in the East) were reported to have been consistent in their parenting over the 3 years. The remaining parents were reported to have fluctuated, moving from supportive to less supportive, or vice versa, over the 3 years. The eight patterns were combined to give two groups which were large enough for analyses: consistently supportive (supportive at two or more of the time periods) and inconsistently supportive (supportive at one or less time period).

The distributions of these two groups were similar in the two regions; 33% of the adolescents in the East (n = 32) and 30% in the West (n = 56) had consistently supportive parents and 67% of the adolescents in the East (n = 65) and 70% in the West (n = 130) had inconsistently supportive parents.

**Preliminary analysis**

As our primary goal was to assess the contribution of parenting behaviours to adolescent functioning, we wanted to ensure that other variables, such as parental education, were not
factors explaining the variation in adolescent outcomes. To do this, we used t-tests to compare parents with higher and lower education levels on the three parenting dimensions. As multiple t-tests were conducted, we used Bonferroni’s correction to test for significant differences. The analyses revealed that, for all three parenting dimensions on all three waves of data, there were no significant mean level differences between parents who had higher or lower levels of education in terms of their parenting sensitivity, predictability and school involvement, as rated by the adolescent.

Results

Repeated measures ANOVA in SPSS (Norusis, 1993) was used to test the hypotheses. The four dependent variables were analysed separately. We hypothesized that each of these dependent variables would show a linear trend over the 3 years. To test for this, we used polynomial contrasts for the “time” factor in all the repeated measures ANOVA runs. In the first run, adolescent depression was the dependent variable and time (three measurement points), consistency in supportive parenting (consistent/inconsistent), gender and region (East/West) were entered as factors. The multivariate tests indicated that the effect of time was significant ($F = 4.40, df = 2, p < 0.05$; Wilks’ lambda = 0.98). Furthermore, mean levels of depression increased on a linear trajectory over the 3 years ($F = 5.37, df = 1, p < 0.05$). Time did not interact significantly with any of the other factors. There was a trend towards significance for the main effect of gender ($F = 2.75, df = 1, p = 0.098$), with females reporting on average a higher level of depression than males. As hypothesized, there was a significant main effect for supportive parenting ($F = 8.29, df = 1, p < 0.01$). Adolescents from consistently supportive families reported lower mean levels of depression compared to those from inconsistently supportive families (shown in Figure 2). Furthermore, there was a marginally significant interaction between gender and supportive parenting ($F = 3.54, df = 1, p = 0.06$). There were no significant East/West effects predicting adolescent depression.

With grade entered as the next dependent variable, the multivariate tests revealed that the effect of time was again significant ($F = 15.80, df = 2, p < 0.001$; Wilks’ lambda = 0.89). Grades increased (i.e. worsened) on a linear trajectory with age ($F = 31.00, df = 1, p < 0.001$). There was a significant main effect for region ($F = 26.55, df = 2, p < 0.001$), with adolescents in the East achieving better grades than adolescents in the West. There was also a marginally significant main effect of gender predicting school grades ($F = 3.43, df = 2, p = 0.07$), favouring females. Finally, again confirming our hypothesis, those with consistently supportive parents achieved better grades at all three time points compared to those with inconsistently supportive parents ($F = 8.56, df = 1, p < 0.01$). See Figure 3 for a graphical representation of these relationships.

With school self-efficacy as the dependent variable, the multivariate tests showed that the effect of time was again significant ($F = 5.57, df = 2, p < 0.01$; Wilks’ lambda = 0.96), with adolescent self-efficacy decreasing steadily on a linear trajectory over the 3-year period ($F = 11.15, df = 1, p < 0.01$). Furthermore, adolescents from consistently supportive families reported significantly higher levels of self-efficacy at each time point compared to adolescents from inconsistently supportive families ($F = 9.97, df = 2, p < 0.01$). No significant gender or regional differences were found (see Figure 4).
Figure 2. Adolescent depression and supportive parenting over time (—, consistent; •••• inconsistent).

Figure 3. Adolescent school grades and supportive parenting over time (—, consistent; •••• inconsistent).
In the final set of analyses, delinquency was the dependent variable. The effect of time was significant according to the multivariate tests ($F = 14.65$, df = 2, $p < 0.001$; Wilks’ lambda = 0.90), with rates of delinquency increasing linearly over the 3 years ($F = 26.28$, df = 1, $p < 0.001$). Gender was marginally significant as a predictor for delinquency ($F = 3.08$, df = 1, $p = 0.08$), with males being more likely to report engaging in delinquent acts than females. Adolescents with consistently supportive parents were significantly more likely to engage in less delinquent acts over the 3 years compared to adolescents with inconsistently supportive parents ($F = 23.38$, df = 1, $p < 0.001$). In Figure 5 we report the percentage of those responding “yes” to any one of the delinquency items over time.

Because the measure of delinquency was dichotomous, we also performed multi-way frequency analyses to check that the results found with the repeated measures ANOVA analyses were similar to results using a non-parametric test. A hierarchical loglinear model was used to test the associations between delinquency, gender, region and consistency in supportive parenting. Tests were conducted separately for delinquency for the three waves, resulting in three final models. Model selection with backward elimination (elimination was set at the 0.05 significance level) was used. All three final models fitted the data well and, as predicted, all included a significant two-way interaction between consistency in supportive parenting with adolescent delinquency at the three time points. Thus, the loglinear analyses showed similar results to the repeated measures ANOVA, namely that adolescents with consistently supportive parenting were less likely to report committing delinquent acts compared to those with inconsistently supportive parenting.

![Figure 4. Adolescent school self-efficacy and supportive parenting over time (—, consistent; ---, inconsistent).](image-url)
Discussion

A clear pattern emerged from the findings, namely that adolescents with consistently supportive parents do better in terms of delinquency, depression, school self-efficacy and school grades. The relationship, moreover, held across time. The data suggest that consistently supportive parenting may be a positive “proximal process” (i.e. a concrete interaction between individuals that can foster positive development) (Bronfenbrenner and Ceci, 1993) which shows a consistent relationship with adolescent functioning that may not be heavily dependent on a certain context such as region (e.g. East vs. West Germany). It is notable that in our study, consistently supportive parenting was in no case associated with unfavourable outcome in adolescents.

The discussion that follows will begin with a description of the trajectories for supportive parenting and the four outcome variables. Next, we will move into a discussion on the findings regarding gender effects on adolescent outcomes. Finally, we will comment on the lack of significant interactions between consistently supportive parenting with region, suggesting that the effects of supportive parenting in the two contexts of East and West Germany were comparable.

We found that supportive parenting is not necessarily a stable phenomenon over time. Some adolescents reported that their parents were consistently supportive while others did not. As stated earlier, most studies of parenting behaviours and styles are cross-sectional and give the impression, for instance, that a supportive or an authoritative parent is consistently so over the years. This study demonstrated that there are different patterns of consistency in
supportive parenting within a span of several years. These findings emphasize the importance of gathering longitudinal data to capture the potential fluctuations in parenting as they occur across time.

The finding that depression increases over adolescence has been documented in previous studies. Brooks-Gunn and Reiter (1990) report that there is an increased incidence of depression during the adolescent years, that depression becomes more frequent following puberty and that it is related to personality, situational and hormonal factors.

The finding that delinquency increases during adolescence is also in line with earlier research. Farrington (1986) has demonstrated that there is a close correlation between age and delinquency, with a sharp increase in delinquency during adolescence and then a decrease beginning in young adulthood. More time spent with peers and less time in the family, less parental supervision and greater autonomy were some of the factors proposed to explain this increase during adolescence.

We found that grades worsen over time. This could mean that individual performance has deteriorated, or that more stringent standards have been set in progressively higher classes (Silbereisen and Wiesner, in press). Poorer grades as children progress into higher classes is not restricted to German student populations, but is also a well-known phenomenon in the U.S.A. (Elmen, 1991). Tougher competition, higher standards and difficulty in adjusting to the new environment could account for this decline.

School self-efficacy also declined over the years in this sample, perhaps because of an association with worsening grades. Several previous studies have reported this correlation between self-efficacy and school grades (Oettingen et al., 1994; Little et al., 1995). It could also be that adjusting to the change from elementary school to the three tracks of schooling in Germany (i.e. Hauptschule, Realschule and Gymnasium) is stressful and, consequently, negatively affects self-efficacy in the process. There is some evidence that for those entering the Gymnasium (the highest-level school track), the transition is particularly difficult (Schwarzer and Jerusalem, 1982; Jerusalem and Schwarzer, 1991). There appears to be a similar decline in self-efficacy for students in the U.S.A. who are making the transition from elementary to junior high school (Eccles et al., 1998).

In this study, gender differences were found in three of the four areas of adolescent adjustment. Contrary to expectations, no gender differences were found in levels of school self-efficacy beliefs. Gender emerged as a marginally significant main effect for adolescent delinquency. Not surprisingly, males were more likely to report that they engaged in delinquent behaviour than females, corroborating earlier findings (e.g. Mears et al., 1998). Researchers have argued that this difference could be due, for example, to variations in how males and females are affected by exposure to delinquent peers (Mears et al., 1998), their development of social controls (Heimer, 1996) and/or their educational expectations (Triplett and Jajoura, 1997).

Gender was a marginally significant main effect in predicting school grades. Females reported receiving better grades than males. Previous research involving both American and German samples has also reported this gender difference favouring females (e.g. Kimball, 1989; Tiedemann and Faber, 1994; Wilberg, 1997).

There was a trend for females to report higher levels of depression over the 3 years compared to males. This gender difference is well-documented in American adolescents (see Brooks-Gunn and Reiter, 1990) and has also been found in a study of German adolescents that included samples from both the former East and West (Noack and Kracke, 1997). These researchers found that, in both regions of Germany, girls reported significantly higher levels
of depressive mood compared to boys. In summary, our results regarding gender effects on adolescent functioning are consistent with existing literature.

In addition to differences between males and females, differences between East and West German adolescents were also examined. Region, unlike gender, did not appear to play a critical role with regard to adolescent well-being and supportive parenting. The only significant main effect of region was found for predicting school grades. Our finding that East German students received better grades, on average, than West German students, supports results from a recent study (Kornadt, 1996). As an explanation, Kornadt suggests that grading was more lenient in the East due to the fact that, before unification, responsibility for a student’s success or failure mainly fell upon the teachers. Because of this, students in the East were likely to receive better grades.

We did not find a significant interaction between consistently supportive parenting and region, indicating that the relationship between supportive parenting and adolescent functioning does not differ for East and West German adolescents. This supports our hypothesis that parenting which is sensitive, predictable and supportive over time is associated with positive adolescent adjustment, regardless of the particular regional context. In other words, consistently supportive parenting “worked” in the same way in both East and West Germany.

How can we describe the effect of consistency in supportive parenting? The effect does not seem to manifest itself by an absence of declines in school self-efficacy, delinquency, school grades or, furthermore, by an absence of an increase in depression during adolescence. Indeed, our data show that school self-efficacy decreases, depression and delinquency increase and school grades worsen for adolescents in consistently supportive families, just as for adolescents in inconsistently supportive families. The difference, however, lies in the level of adolescent adjustment, with adolescents from consistently supportive families functioning at more positive levels. This suggests that consistently supportive parenting may dampen or “curb” the development of excessively negative developmental trajectories. For example, adolescents from consistently supportive families may show increases in delinquency over the teenage years, but these increases may not reach the same level of delinquency as for those from inconsistently supportive families. Consistently supportive parenting, then, may keep negative developmental trajectories at more controlled levels.

There seems to be ample evidence that a certain kind of parenting is related to positive developmental outcomes for adolescents. However, an area ripe for further research concerns the particular mechanisms of this association. For instance, a recent study by Grolnick and Slowiaczek (1994) examined how the influence of parental involvement in schooling is partially mediated by the early adolescents’ perceived competence. They advocate the view that one must consider mediators, such as these, as the child is “an active constructor of his or her school experiences”. This echoes the broader statement by Lerner (1982) that children and adolescents are active producers of their own development. Bronfenbrenner and Crouter’s (1983) notion of person–process–context also applies here. These researchers advocate the utilization of particularly relevant person variables along with relevant context variables in order to study developmental processes more completely. In other words, it would be constructive to consider adolescent characteristics such as perceptions, motivations, maturity, etc. to uncover the specific processes by which parental involvement, sensitivity or predictability are associated with adolescent competency.

The key finding that emerged from our study was that adolescents with consistently supportive parents fared better in early and mid-adolescence compared to those with
inconsistently supportive parents. What we do not know is how these developmental trajectories continue through late adolescence and into young adulthood. More studies are required to trace the changes in supportive parenting and its concurrent and long-term effects on individuals in late adolescence and beyond.

One limitation to this study is that all measures were gathered from participants using self-report questionnaires. This could lead to biased findings resulting from common method variance. On the other hand, despite the fact that multiple methods would have been valuable, the adolescents’ views of their parents and family lives constitute an important perspective. Furthermore, it has been demonstrated that collecting information from adolescents on how they perceive their family experiences is not inherently inferior to objective measures (Steinberg et al., 1994).

Our measure of supportive parenting was certainly not exhaustive, consisting of only three, albeit important, facets of parenting. Future studies that continue to test aggregate and specific measures of supportive parenting will be useful in determining which aspects of parenting are more salient to particular areas of adolescent outcomes, or which general style of parenting (e.g. authoritative parenting) is relevant for a wide range of outcomes in adolescents. Gathering information with both aggregate and specific parenting measures is valuable (Pettit et al., 1997; Kerr et al., 1999).

To ensure adequate sample sizes for analyses we dichotomized our parenting measure in a way that did not exclude participants. However, if it was possible to focus only on the more extreme groups (e.g. comparing those who were not supportive at all three time points to those who were supportive at all three time points), without a substantial loss in power, the difference between adolescents from the two supportive parenting groups would presumably be magnified. Thus, because we included moderate levels of consistently and inconsistently supportive parenting, our results on the positive effects of consistently supportive parenting are probably conservative.

We were also not able to test for a threshold level of consistency in supportive parenting which remains effective in promoting positive outcomes in adolescents. For example, did adolescents who had supportive parents at only two out of three time points still function at the same levels as those with supportive parents at every time point? If so, it may be an indication that this less-than-perfect consistency in supportive parenting may be just “good enough” to sustain adolescent well-being.

Another interesting area for future analyses would be to examine whether different types of inconsistency in supportive parenting relate to adolescent development in different ways. In other words, the direction of change in supportive parenting (e.g. moving from unsupportive to more supportive over time or vice versa) may have distinct consequences for adolescents. For instance, one may find that some types of inconsistency, such as becoming more supportive over time, may be beneficial in buffering rising levels of adolescent depression or delinquency. Conversely, other types of inconsistency in parenting, such as becoming less supportive over time, may have potentially negative consequences for the adolescent.

Our longitudinal study was conducted between 1993 to 1995, only a few years after German unification. In this short time span, families were still coping with the changes that took place. The results from our study suggest that consistently supportive parenting worked well in this period of adjustment. In their role as moderators of the broader social context, supportive and involved parents may be even more important in ensuring the success of their children in a society that is rapidly changing.
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References


**Appendix A: supportive parenting items**

**Sensitivity dimension**

*1. My parents don’t notice at all when things are not going well for me.*

*2. My parents don’t notice when I am sad or when I am in trouble.*
Predictability dimension
*3. Sometimes my parents are happy when I am nice to them, at another time they can't stand it.
*4. Sometimes my parents praise me when I do something well, sometimes they don't notice at all.

School involvement dimension
5. My parents regularly ask me about my homework.
6. My parents pay attention to the grades I bring home.
7. My parents take my school reports very seriously.

Response scale
1 = Doesn't apply at all.
2 = Applies a little.
3 = Applies.
4 = Applies fully.
*Recoded.