The purpose of this study was to examine the extent to which several parental and family variables influenced adolescent autonomy in a sample of Appalachian adolescents. Self-report data were acquired for this study from 707 high school adolescents who attended two different high schools in rural Appalachia. Hierarchical multiple regression analysis was used to determine the relative predictive influence of several parental behavior, family relationship and family structural variables on adolescent behavioral autonomy. Results indicated that patterns of socialization in Appalachian culture were similar to results from parent-adolescent research conducted on mainstream, urban samples, with the exception of the results for familism. Key variables of interest that fostered adolescent autonomy included parental support and reasoning, whereas parental punitiveness inhibited adolescent autonomy. The strong familistic bonds of Appalachia fostered rather than hindered autonomy, suggesting that Appalachian familism may have different consequences for adolescents in Appalachia as compared to mainstream U.S. society.
FAMILY SOCIALIZATION PREDICTORS OF AUTONOMY AMONG APPALACHIAN ADOLESCENTS

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Introduction: Appalachia as a Context for Adolescent Socialization

The area known as Appalachia was formally defined in 1965 by the U.S. Congress due, in part, to its poor economic history and current circumstances. Serving as the social and geographic context for the present study on parent-adolescent relationships, the Appalachian region of the U.S. extends from the state of New York to the Northern areas of the states of Georgia and Alabama. Appalachia consists of 413 counties in 13 states (Appalachian Regional Commission, n.d.; The Rural and Appalachian Youth and Families Consortium, 1996), with the population of this vast area consisting of great diversity in socioeconomic standing, degrees of poverty, and educational attainment.

The region has become even more diversified economically in the past fifteen years, a trend that raises issues about the extent to which Appalachia remains distinctive from the rest of America. Although depending primarily on mining, agriculture, and industry in the past, Appalachia has become increasingly dependent on service industries, government employment, tourism, and retail jobs. Compared to poverty rates of 13 percent for the rest of the nation, Appalachia has higher rates of poverty ranging from 16 to 27 percent (i.e., depending upon the specific area of the larger region), combined with lower levels of personal and household income. Currently the educational attainment of Appalachian residents is lower than the national average, while unemployment levels are significantly higher than the larger society (Appalachian Regional Commission, n.d.; Beaver, 1988; The Rural and Appalachian Youth and Families Consortium, 1996; Wilson & Peterson, 2000).

Appalachia is an area that has suffered economically, in part, because of extensive geographic isolation early in its historic development within the U.S. The rugged terrain of the Appalachian mountains made it difficult to establish and maintain roads as well as to develop rail transportation. Moreover, during its past, Appalachia was isolated for political and social reasons as well as geographic ones. During the Civil War, for example, much of the Appalachian population sided with the Union (even in the Southern states of Kentucky, Tennessee and North Carolina). After the war, the neighboring counties, formerly of the Confederacy, retaliated by providing unequal funding for schools, roads, and other vital forms of infrastructure located within mountaineer counties (Wilson & Peterson, 2000).

The ethnic demographics of the Appalachian region are as follows: 93% of the population is Caucasian, with the majority of these inhabitants being of Scotch-Irish, English, or...
German ancestry (Beaver, 1988; The Rural and Appalachian Youth and Families Consortium, 1996; Wilson & Peterson, 2000). The frequency of two-parent households is lower in Appalachia than the larger country as a whole, a pattern that is partly due to the disproportionate number of adults over the age of 65 who live in this region. Areas like Appalachia, characterized by a large number of adults over 65, tend to demonstrate slower population growth than other regions of the country and demonstrate the corresponding trend for many young people (including two parent families) to move out of the region.

Another demographic pattern is that the rate of cohabitating couples also is lower in Appalachia than in the nation as a whole (Appalachian Regional Commission, n.d.). Single parent households are less common in the Appalachian region than is true for the remaining areas of the several states in which the Appalachian region is present. Households with single person occupants make up the majority of residences in Appalachia, a pattern that may reflect the aging and mortality of spouses and children within this region (Appalachian Regional Commission, n.d.).

Such socio-demographic contrasts between Appalachia and the larger society of the U.S. raise important questions about the nature and distinctiveness of Appalachian families, a social institution of fundamental importance within this region. Of particular importance for this study are specific aspects of the parent-adolescent relationship that may predict the development of adolescent autonomy from parents.

Culture, Socialization, and Purpose of this Study

Rural Appalachian society is often characterized as more cohesive than its urban counterpart, with adolescents being socialized to remain geographically closer to their families and maintain stronger, more complicated interpersonal ties with immediate and extended kin (Hicks, 1992; Peters et al., 1986). Consequently, an aspect of Appalachian culture that has important consequences for adolescent development is the concept of familism.

Familism is a value characterized by substantial loyalty to one’s family by individual members, the importance of a family’s reputation, and distrust for extrafamilial institutions (Rogoff, 2003). Loyalty and commitment to one’s family of origin and extended kin is a primary source of a person’s identity within Appalachian culture, and is often the means through which individuals are connected to the local community, have status, and get social support. Family interests often are seen as more important than personal interests, including such social outcomes
as an adolescent’s need for autonomy. Parent-youth relationships must be viewed, therefore, in
the broader context of extended family systems (or kinship communities) and a culture that
emphasizes strong family bonds (Abbott, 1992; Keefe, 1988; The Rural and Appalachian Youth
and Families Consortium, 1996; Wilson & Peterson, 2000). These familistic or cohesive aspects
of Appalachian socialization goals may foster somewhat specific social outcomes in the young,
perhaps involving distinctive definitions of individual autonomy, a quality of considerable
importance in the socialization values of the larger American culture.

In reference to socialization within families, some observers continue to propose that
typical forms of Appalachian parenting often differ from much of mainstream America (Wilson,
Henry, & Peterson, 1997). Specifically, while urban parenting styles often include rational
control, independence granting, and support (i.e., authoritative parenting) (cf. Baumrind, 1991;
Peterson & Hann, 1999), Appalachian parents have been variously characterized in
impressionistic accounts as highly indulgent or nurturing (Beaver, 1988; Egerton, 1983; Looff,
1971; Weller, 1965), authoritarian, as well as physically punitive (Wiehe, 1990). Others have
characterized Appalachian parenting as fostering excessive family interdependence (Abbott,
1992) and as valuing obedience by the young in reference to their elders, rather than self-
direction and autonomy (Peters & Peterson, 1988; Wilson et al., 1997). Despite some
speculation about distinctive patterns, there has been little systematic research that either
confirms or disconfirms these proposals. One consequence of this limited literature is that it is
difficult to make specific hypotheses about Appalachian parent-adolescent relations that are
based on previous theory or research conducted on adequate samples from the region.

Consistent with these limitations, the purpose of this study was to determine the degree to
which several family relationship, family structural, and parent-youth relationship variables
within a sample of Appalachian families would predict the extent to which adolescents become
autonomous from parents, the dependent variable for this study. The specific independent
variables for the study consist of familistic attitudes (i.e., familism), gender-of-adolescent,
gender role attitudes, and several parental behaviors consisting of support, punitiveness, intrusive
control, and reasoning.

The absence of significant amounts of previous research means that hypotheses based on
empirical literature specific to Appalachia are difficult to generate. Consequently, this study is
largely exploratory in nature and must rely extensively on generating hypotheses from previous
research on parent-adolescent relationships conducted in the dominant urban culture outside rural Appalachia. Patterns of results from this study that differ from previous findings based on dominant culture samples, therefore, might be interpreted as cultural differences specific to Appalachia families and parent-adolescent relationships.

**Adolescent Identity and Autonomy: Integrating Theory**

The dependent variable for this study, adolescent autonomy, can be conceptualized in terms of theoretical ideas developed by Erik Erikson on adolescent development. At the heart of Erikson’s perspective is the view that adolescence is a period that emphasizes the development of an individual sense of identity or a process of reconciling one’s psychological interior with one’s cultural environment. This is a time when adolescents discover their “fit” as well as their uniqueness in reference to society, a process that he describes as follows:

> Should a young person feel that the environment tries to deprive him too radically of all the forms of expression which permit him to develop and integrate the next step, he may resist...for, indeed...there is no feeling of being alive without a sense of identity (Erikson, 1968, p. 130).

This passage demonstrates the importance placed on identity development as well as when the development of this outcome is hindered and adolescents cannot assert their individuality in reference to society. Erikson also described the circumstance when a conflict exists between subsystems—that is, where one social subsystem does not place emphasis on independence, while the larger society may promote self-reliant personalities and choice (1968).

Autonomy has been deemed an “umbrella concept” because the definition of this idea often has been changed by researchers to fit a particular setting or context. In a generic sense, therefore, autonomy can be defined as a state of independence or self-governance (Spear & Kulbok, 2004). According to Beyers and Goosens (1999), autonomy is a psychosocial issue, having both psychological and social components. A particularly important dimension of this construct is the aspect of autonomy that focuses on the behavioral domain of practicing self-governance in reference to parents.

Spear and Kulbok (2004), for example, performed a conceptual analysis of autonomy including the examination of selected research studies published between 1985 and 2001 within the fields of education, psychology, and nursing. Their findings demonstrated that the concept autonomy has been used to describe maturation, self-efficacy, independence, individuation, and
self-actualization. Autonomy has often been referred to as a desired state and a critical social outcome for healthy development, particularly in the mainstream culture of the United States. They also found that the family context was a critical influence on autonomy development and that parents who were warm and supportive seemed to foster autonomy most effectively (Spear & Kulbok, 2004).

The present study examines parent and family influences on adolescent behavioral autonomy, a construct referring to the extent to which adolescents establish themselves as independent including such aspects as becoming less emotionally dependent on parents, being able to make decisions, and establishing their own code of morals and values (Douvan & Adelson, 1966; Steinberg, 1990). According to a conceptualization of this process by Holmbeck and Hill (1986) about the parent-adolescent relationship, individuals who develop behavioral autonomy are those who turn to others for advice when appropriate and can weigh alternative courses of action based on their own judgments and the suggestions of others. The final result, however, consists of the circumstance where adolescents can remain connected to others and yet pursue independent activities in a variety of situations.

Both the concept of autonomy and Erikson’s definition of identity development reflect society’s emphasis on the development of individualism as a valued socialization outcome. Individualism is a perspective that affirms the importance of personal independence and self-reliance. The perspective that contrasts with individualism is collectivism, or a general social value that assigns priority to the interests of the group rather than those of the individual. Familism is a specific aspect of collectivism that emphasizes the centrality of the family unit rather than individual members (Hofstede, 1980; Triandis, 1995). Some observers have argued, for example, that Appalachian culture places greater emphasis on collectivism and familism, whereas the larger urban culture outside Appalachia assigns priority to individualism and autonomy as socialization outcomes (Abbott, 1992; Keefe, 1988; The Rural and Appalachian Youth and Families Consortium, 1996; Wilson & Peterson, 2000).

Given the presence of both individualistic and collectivistic values, Appalachian adolescents may face the dilemma of contradictory messages being received about autonomy from the society as a whole versus the familistic culture of rural Appalachia. Many expectations are conveyed from the larger society by schools, peers, and the mass media for “greater individuality, achievement, and personal mobility” (Wilson & Peterson, 2000, p. 78). In contrast,
Appalachian youth face local expectations for family loyalty, connectedness to the nuclear family, and obligations to extended kin. Appalachia’s local culture, therefore, emphasizes the centrality of family ties (or the interests of the group) at the expense of individual autonomy by the young (Abbott, 1992; Keefe, 1988; Wilson & Peterson, 2000). Consequently, the first hypothesis for this study is that a high degree of familism acknowledged by Appalachian adolescents will inhibit their perceived progress toward autonomy (i.e., a negative relationship is predicted). This prediction is based primarily on the logic found in studies conducted on parent-adolescent samples from the urban mainstream, which tend to share the view that extensive cohesiveness in families is a force that inhibits the development of autonomy by adolescents (Douvan & Adelson, 1966; Holmbeck & Hill, 1986; Spear & Kulbok, 2004; Steinberg, 1990) An exception to this prediction might occur, however, if adolescent autonomy is found to be fostered by familism (i.e., a positive relationship), a circumstance suggesting that cohesive family relationships are not contradictory to (but actually encourage) the development of youthful individuality within the special cultural circumstances of Appalachian familism.

The Role of Gender

Other traditionalizing influences in Appalachian culture are the conservative social values of this region that encourage traditional gender roles. More frequently than in the dominant culture of urban American culture, youth are expected to be committed to the Christian faith and to strive for the salvation of themselves and others (Wilson & Peterson, 2000). Closely allied with these conservative religious beliefs are such cultural attitudes as traditional gender roles that become particularly relevant in various aspects of family life, particularly during the socialization process of adolescents. Recent research (Glendinning, Nuttall, Hendry, Kloep, & Wood, 2003) has indicated that, within rural Appalachian communities, girls and young women are more likely to view rural life as intrusive and controlling. The same study found that girls were more likely than boys to feel they did not fit in a rural community and to feel they have a limited future. Women who remained in rural Appalachia tended to feel more negative about their circumstances than their male counterparts (Elder, King, & Conger, 1996; Dahlstrom).

Appalachian women are faced with cultural expectations that they will work in settings that are stereotypically an “appropriate” place for women, regardless of what their desires may be. The attainment of Appalachian women in the workplace is seen as less important and secondary because women are expected to give up career aspirations in order to marry and raise
children (Crowley & Shapiro, 1982; Keefe, 1988; Wilson, Peterson, & Wilson, 1993). Perhaps more than the dominant, urban culture, adolescent girls and young women from Appalachia are pressured into marriage and dependency on a husband. Such traditional gender-role attitudes suggest that it is unlikely that adolescent females from Appalachia will be socialized to achieve autonomy from their parents to the same degree as their male contemporaries. Consequently, the second hypothesis is that gender differences will be apparent in the development of behavioral autonomy by male and female Appalachian adolescents, with the specific expectation being that male adolescents will report greater autonomy than female adolescents.

A closely related expectation is that when the gender role attitudes of female Appalachian youth are more traditional, it is more likely that these girls will follow paths of development involving a sense of conformity to the expectations of others rather than affirming a sense of autonomy and self-direction (Wilson et al., 1993). Consequently, a closely related third hypothesis is that more traditional gender roles attitudes of adolescent females from rural Appalachia will foster tendencies to place less emphasis on the achievement of autonomy (i.e., a negative relationship is predicted).

Parenting Styles

Parents play a crucial role in the development of autonomy through the kinds of parental styles or behaviors that they use. Parenting styles are defined as “collections of several parenting practices and attributes” (Peterson, in press, p. 18), two examples of which are the authoritative and authoritarian typologies (Baumrind, 1991, Maccoby & Martin, 1983). The first of these styles, authoritative parenting, identifies parents who place a high value on autonomy development and use reasoning to discuss and explain aspects of youthful behavior that require disciplinary responses. Although they maintain firm control, they do so without being punitive and arbitrary, while using reasoning to discuss decisions with their adolescents in conjunction with communicating warmth or support.

In contrast, authoritarian parents use more punitive and forceful discipline. Authoritarian parents use harsh forms of control because they value conformity/obedience by children and adolescents as well as seek to restrict their autonomy (Maccoby & Martin, 1983). Spear and Kulbok (2004), for example, note that many studies have indicated that a warm and supportive family environment tends to foster positive autonomy development in the young. Other findings
indicate that moderate, rational forms of control also tend to foster autonomy in adolescents (Peterson & Hann, 1999).

Instead of parental styles, this study will focus on specific parental behaviors that are featured aspects of the authoritarian, authoritative, and overprotective patterns of child-rearing (Peterson & Hann, 1999). Parental behavior refers to specific actions that are used by parents to influence adolescents.

One of these parental behaviors, punitiveness, is the featured aspect of authoritarian parenting and refers to the use of force by parents. Punitiveness consists of either verbal or physical behavior that is characterized by a forceful, arbitrary, and harsh nature. This excessive form of control attempt is used by parents to influence the behavior, values, and attitudes of the young and the harsh quality of punitiveness is intended to punish and severely restrict the behavior of adolescents. Although some adolescents vigorously resist this excessive form of control, the common result is that the young will confine their behavior to their parents’ expectations for conformity and restrict the development of autonomy (Peterson, in press; Peterson & Hann, 1999). The fourth hypothesis of this study, therefore, is that punitiveness will inhibit the development of autonomy among Appalachian youth (i.e., a negative relationship is predicted). A possible exception to this prediction might result because Appalachian parenting traditions are reputed, in some of the literature (Wiehe, 1990), to be unusually punitive, a pattern that may result in predictions that differ from findings based on samples from the urban, mainstream.

Another form of parental influence attempt, intrusive parental control, is the featured control dimension of overprotective parenting and has been described as the inverse of autonomy granting behavior by parents. Intrusive control behaviors are those that seek to inhibit the autonomy of adolescents through psychological strategies that are likely to result from highly cohesive family bonds, such as those characteristic of Appalachian families (Wilson & Peterson, 2000). Parents demonstrate this behavior by withdrawing love, attempting to induce guilt, manipulating, and invalidating an adolescent’s feelings. This behavior often leads to negative consequences such as depression, loneliness, and less effective identity development in mainstream populations of American society (Peterson, in press). However, empirical tests involving intrusive control behavior have not been conducted within Appalachian families in which intrusive parental control may be a more common outgrowth of the closer family ties.
characteristic of mountaineer culture. Consequently, a fifth hypothesis is that intrusive parental control is expected to inhibit the autonomy of Appalachian adolescents (that is, a negative relationship is predicted).

Parental support is another independent variable examined in this study. If parents provide nurturance and support to their young, the recipient adolescents tend to believe in themselves and are equipped to confidently make decisions and face the challenges of the social world. Parental support consists of behaviors such as praising, accepting, approving, encouraging, and communicating warmth. These behaviors have been found to predict many positive developmental qualities of adolescents, including self-esteem, identity formation, conformity to parents’ expectations, and autonomy in reference to parents (Parker & Benson, 2004; Peterson, in press). Consequently, the sixth hypothesis is that parental support is expected to foster the autonomy of Appalachian adolescents (i.e., a positive relationship is predicted).

Finally, reasoning is another control attempt commonly used by parents to influence their adolescents. The purpose of reasoning, or positive induction, is to help adolescents understand why their behavior is acceptable or unacceptable. The use of reasoning communicates that parents respect adolescents and are encouraging them to think about how their behavior affects others and how it can become more acceptable. Reasoning teaches adolescents to engage in a dialogue with their parents and encourages autonomy because parents do not impose their will on adolescents. Instead of forcing compliance to parents’ expectations, the use of reasoning appeals to the willingness of the young to voluntarily comply because they agree with and have become committed to the parents’ perspectives. Adolescents who engage in such dialogues with parents are more capable of making reasoned decisions and of seeking greater freedom of action to gain autonomy. The outcomes of reasoning are positive and include higher self-esteem and growing autonomy from parents (Baumrind, 1991; Maccoby & Martin, 1983; Peterson, in press). Consistent with these ideas, the seventh hypothesis is that use of reasoning by parents will encourage the development of autonomy by Appalachian adolescents (i.e., a positive relationship is expected).
Methodology

Participants

The participants of this study were adolescents residing in Appalachian counties identified as depressed counties with high unemployment rates, high rates of poverty, and low median incomes. The sample was taken from two rural high schools located within these depressed counties. Participants were both male and female ranging from ages 14-19 and the mean age for the sample was 16. The average score for parents’ educational attainment corresponded to the category “completed high school” for fathers and “completed high school” and also had “other training (but not college)” for mothers. The gender of the respondents for this study demonstrated an approximate equal distribution, with 349 being female and 358 being male. Informed consent letters were sent to parents and assent forms were completed by students. Participation was completely voluntary and no incentives were given to complete the project questionnaire.

Procedures

Data was collected in 2002 through surveys given to a convenience sample of 707 high school students. The surveys were administered within school classrooms and took approximately 35-45 minutes to complete. The 181 item questionnaire contained numerous variables, all of which were self-report questions responded to by the adolescents who participated in this study.

Measures

All of the variables were assessed from the adolescents’ perceptions, with the measures of parental behaviors and adolescent autonomy being reported separately for mothers and fathers by the adolescent respondents. Among the variables assessed was a measure of behavioral autonomy, the dependent variable for the study, reported separately for mothers and fathers. The project questionnaire also included measures of the independent variables: familism, gender-role attitudes, gender-of-adolescent, and several parental behavior variables consisting of parental punitiveness, intrusive control, support, and reasoning.

Control variables also were included in the analyses, consisting of parents’ marital status, adolescents’ age, and parents’ education, an indicator of social class. These variables were included because marital instability, the age of adolescents, and social class might be contaminating predictors of adolescent autonomy that could serve as alternative explanations to
the hypothesized predictors (Steinberg & Silk, 2002). Consequently, the inclusion of these variables controlled or removed these sources of alternative explanation within the predictive models tested as part of this investigation.

Behavioral autonomy was measured by a 10-item self-report scale that was used in previous studies (Douvan & Adelson, 1966; Steinberg & Silk, 2002). Cronbach’s alpha for this scale demonstrated internal consistency reliability coefficients in previous analyses ranging from .81 to .86. Adolescents’ responses to each item measuring behavioral autonomy were in terms of the 4-point Likert-type scale “strongly agree” (4), “agree” (3), “disagree” (2), “strongly disagree” (1) considered separately for mothers and fathers. Higher scores on these Likert-type responses indicated higher perceived behavioral autonomy, whereas lower scores indicated lower behavioral autonomy. For the present study, this scale demonstrated Cronbach’s alpha indicating internal consistency reliability of .87 in the mothers’ model and .86 in the fathers’ model.

Familism was measured by a 5-item scale based on ideas from the Bardis Familism Scale (1959). This instrument assesses adolescents’ feelings, loyalties, rights and obligations associated with family bonds. The participants responded to the items in terms of a four-point Likert scale that varies from strongly agree (4 points) to strongly disagree (1 point). Each of the items is summed for a total score, with higher scores indicating higher levels of familism. For this study, this scale demonstrated Cronbach’s alpha indicating internal consistency reliability of .59.

Gender-roles were measured by a 10-item scale that was an adaptation of an instrument developed by Smith and Self (1980). The instrument assesses traditional versus nontraditional attitudes about male and female gender roles. The items composing this measure were 4-point Likert-type in formatting that ranged from strongly agree to strongly disagree. For example, a high score (strongly agree) on the item “Women are by nature more emotional than men” reflects a traditional gender-role orientation. In contrast, a high score on the item “In general, working women are just as happy as housewives” represents a nontraditional gender-role orientation. For computing scale scores and conducting the analyses, the traditional items were reversed coded. These recodes resulted in scores for each item that ranged from 1 to 4, with the value of 4 representing the most nontraditional response and the value of 1 designating the most traditional response. For the present study, a Cronbach’s alpha indicated internal consistency reliability of .74.
The Parental Behavior Measure was used to assess aspects of parental behavior that measured adolescents’ perceptions of supportive and controlling dimensions of parental behavior directed towards their adolescents (Supple, Peterson, & Bush, in press). The 31-item self-report measure has been used in previous studies (Henry, Peterson, & Wilson, 1989; Henry & Peterson, 1995; Peterson, Rollins, & Thomas, 1985; Peterson, Bush, & Supple, 1999) and measures several parental behaviors including parental support, positive induction (reasoning), punitiveness, and intrusive control. A four-point Likert scale was used to measure responses ranging from strongly agree (4 points) to strongly disagree (1 point). The score of negative valence items were reverse coded to structure additive scale scores.

A four-item subscale from the Parental Behavior Measure (Peterson et al., 1985; Supple et. al, in press) measured parental support as behaviors that communicated warmth, affection, and a sense of being valued to adolescents. Specific items that measured support were based on a factor analytic study of the Heilbrun (1964) and Cornell measures (Devereaux, Bronfenbrenner, & Rodgers, 1969) of parental support. Cronbach’s alphas for this subscale indicated internal consistency coefficients of .86 to .88 in previous studies, indicating good reliability for this dimension (Devereaux, et al., 1969; Heilbrun, 1964). For the present study, Cronbach’s alphas were .88 for the mothers’ support and .86 for the fathers’ support.

A five-item subscale measured adolescents’ perception of their parents’ use of positive reasoning or induction. Items were developed based on conceptualizations of Hoffman (1980) that examined a parents’ ability to explain how their adolescents’ behavior affects others. Measures of internal consistency reliability, Cronbach’s alphas, for this study indicated coefficients of .89 for mothers’ reasoning and .91 for fathers’ reasoning.

Perceptions of parental punitiveness were measured using an eight-item subscale from the Parent Behavior Measure (Peterson et al., 1985; Supple et al., in press). This scale measured the extent to which parents use verbal or physically coercive behaviors characterized as strict, harsh, and arbitrary. Cronbach’s alphas for this subscale in the present study were .87 for both the mothers’ and fathers’ punitiveness.

Parental intrusive control was measured by a six-item subscale assessing the extent to which parents attempt to control their adolescents through love withdrawal, guilt induction, and behaviors that include turning one’s back and refusing to speak to their adolescent sons and daughters. The subscale for intrusive control was taken from the Parent Behavior Measure.
(Peterson et al., 1985; Supple et al., in press) and demonstrated Cronbach’s alphas for this study of .83 for mothers’ intrusive control and .82 for the fathers’ intrusive control.

Age of the adolescent was measured on the day of the survey through a standard self-report item included in the project questionnaire. Gender of the adolescent was reported as male or female and scored with the values of 1 = male and 2 = female. Parents’ marital status was defined as married (1), divorced (2), separated (3), widowed (4), single (5), and other (6). Educational level of the father and the mother were reported by the adolescent with responses ranging from “some grade school” to “graduate degree.”

**Analysis and Results**

The hypotheses for this study were tested using hierarchical multiple regression analysis, a statistical strategy used to assess the extent to which the predictor variables influenced adolescent autonomy in expected directions. Separate statistical models for the predictors of autonomy from mothers and fathers sought to prevent multicollinearity by avoiding the high correlation that often occurs when adolescents provide self-reports of the same parental behaviors for both parents. Consistent with hierarchical regression procedures, the sociodemographic or control variables were entered in the first step of the analysis including parents’ education, parents’ marital status, age-of-adolescent, and gender-of-adolescent. This was followed by a second step consisting of predictor variables of primary interest for the hypotheses, including the parental behaviors support, reasoning, punitiveness, and intrusive control, familism, and gender-role attitudes of the adolescent. In addition, separate multiple regression models for each gender-of adolescent and gender of parent combination were conducted to test the hypothesis that females with traditional gender roles would report less autonomy from parents.

Table 1 and Table 2 provide the correlation matrix for the maternal and paternal models and Table 3 provides descriptive statistics consisting of the means and standard deviations for the independent (predictor) and dependent variables.

Table 4 presents the hierarchical multiple regression results for the predictors of autonomy from mothers. Results for both steps (blocks) of the hierarchical regression are presented, the first of which consists of the sociodemographic/control variables that accounted for only 1.4% of the variance in autonomy from mothers. Although two predictor variables, age-of-adolescent ($\beta = .100, p = .008$) and the widowed category of marital status ($\beta = -.078, p$
.039) were initially significant in the first block, neither variable retained its significance once the second block of variables was entered into the equation.

Table 4 indicates that 38.3% ($R^2 = .383$) of the variation in autonomy from mothers was explained and clearly demonstrates that most of the explained variance in the dependent variable was accounted for by the second block of variables consisting of the predictors of primary interest in this study. The first block of variables demonstrated an Adjusted $R^2$ value of .014, or only 1.4% of the variability in autonomy. Consequently, the second block of independent variables accounted for 36.9% of the variability in autonomy from mothers beyond the amount accounted for by the first block of variables.

Other independent variables attained significance upon the entry of the predictor variables of primary interest in the second block (see Table 4). A sociodemographic variable that attained significance as a positive predictor of adolescents’ autonomy from mothers in the second block was the divorced category of the marital status variable ($\beta = .087, p = .004$). This finding suggested that adolescents attained greater autonomy from mothers in divorced homes than in homes characterized by other categories of marital status. Otherwise, the other marital status variables (i.e., separated, widowed, single, and other) and mothers’ educational attainment failed to be significant predictors of autonomy from mothers.

Several of the variables of primary interest entered in the second block were significant predictors and accounted for the greatest amount of variation in autonomy from mothers (see Table 4). Familism had an unexpected outcome, demonstrating a marginally significant positive rather than a negative relationship with adolescent autonomy from mothers ($\beta = .062, p = .069$). Maternal support predicted autonomy from mothers with a positive standardized beta coefficient of considerable strength ($\beta = .367, p < .001$). Maternal reasoning also demonstrated a significant positive correlation ($\beta = .096, p = .020$), whereas maternal punitiveness was found to inhibit autonomous behavior by demonstrating a significant negative correlation with autonomy from mothers ($\beta = -.194, p < .001$).

In contrast, several of the independent variables in the second block of the statistical model did not attain significance as predictors of autonomy from mothers. Specifically, these nonsignificant variables consisted of gender-of-adolescent, mother’s educational attainment, several marital status categories of parents (i.e., separated, widowed, single, or other), gender role attitudes, and parental intrusive control (see Table 4).
Table 5 presents the hierarchical multiple regression results for the predictors of adolescents’ perception of their autonomy from fathers. The model summary analysis results provided in Table 5 indicate that the Adjusted R\(^2\) for the second block of data was .350, meaning that all of the predictor variables in the regression equation accounted for 35% of the variance in autonomy from fathers. The first block of predictors in the hierarchical model demonstrated an Adjusted R\(^2\) of .012, or 1.2% of variability in autonomy. Consequently, the addition of the second block of variables of primary interest accounted for 34% of the variability in autonomy from fathers beyond what was explained by the first block of sociodemographic/control variables. Consistent with the model for autonomy from mothers, most of the explained variance in the autonomy from fathers was explained by the second block of variables consisting of the predictors of primary interest.

The first block of variables entered for the hierarchical regression demonstrated that adolescent age was a significant positive predictor (\(\beta = .098, p = .009\)) of autonomy from fathers, whereas adolescent gender demonstrated a marginally significant negative correlation (\(\beta = -.074, p = .051\)), indicating that males demonstrated more autonomy than females (see Table 5). However, adolescent gender did not retain its significance when the second block of focal variables was entered, whereas adolescent age remained a significant predictor (\(\beta = .071, p = .022\)) of autonomy from fathers after the complete set of variables was entered. Additional sociodemographic/control variables consisting of several marital status variables and fathers’ educational attainment failed to demonstrate significance as predictors of autonomy from fathers.

Several of the predictors of primary interest were significant predictors and accounted for the greatest amount of variation in the dependent variable, adolescents’ perceptions of autonomy from fathers (see Table 5). In the first place, an unexpected outcome was evident for familism as a predictor by demonstrating a positive rather than a negative beta coefficient with adolescent autonomy from fathers (\(\beta = .079, p = .017\)). Moreover, paternal support was a strong predictor (\(\beta = .329, p < .001\)) and paternal reasoning demonstrated a marginally significant positive correlation (\(\beta = .083, p = .062\)) with autonomy from fathers. In contrast, paternal punitiveness appeared to inhibit autonomy from fathers by demonstrating a significant negative coefficient (\(\beta = - .239, p < .001\)) in reference to autonomy from fathers. Though gender role attitudes did not demonstrate significance when tested in these general regression models (see Tables 4 & 5), when tested separately for each gender-of-adolescent and gender-of parent combination, the
nontraditional gender role attitudes of female adolescents was a significant positive predictor of autonomy from fathers ($\beta = .089$, $p = .048$). The remaining variable of primary interest, parental intrusive control, failed to be a significant predictor of autonomy from fathers.

Given these results, an important remaining task is to assess how the hypotheses for this study fared by either being confirmed or disconfirmed by the multiple regression procedures. Hypothesis 1 for this study proposed that the degree of familism acknowledged by Appalachian adolescents would inhibit or be a negative predictor of their perceived progress toward autonomy from parents. In contrast to this expectation, however, familism was a significant positive predictor of autonomy from fathers and closely approached significance with a positive correlation in reference to autonomy from mothers. Consequently, although demonstrating a significant relationship, the first hypothesis for this study was not supported because the direction of the relationship was positive instead of the expected negative relationship.

Hypothesis 2 proposed that gender differences would be apparent in the behavioral autonomy of male and female Appalachian adolescents, with the specific expectation being that male adolescents would report greater autonomy than female adolescents. However, hypothesis 2 was not supported in this study because adolescent gender did not attain significance in either of the complete models for autonomy from mothers and fathers.

Hypothesis 3 proposed that traditional gender role attitudes of adolescent females from Appalachia would inhibit their autonomy. Preliminary results for the gender role attitudes variable in the general model (see Tables 4 & 5), which provided combined findings for adolescent males and females, did not attain significance. However, an appropriate test of this hypothesis required a separate multiple regression analysis for females and males in both the mother’s and father’s models. For autonomy from mothers, gender role attitudes was not a significant predictor of female adolescent autonomy but, for autonomy from fathers, nontraditional gender role attitudes demonstrated a significant positive beta coefficient ($\beta = .089$, $p = .048$). Consequently, hypothesis 3 was partially confirmed in reference to autonomy from fathers but not for autonomy from mothers.

Hypothesis 4 proposed that, for this sample of Appalachian adolescents, punitiveness would inhibit or demonstrate a negative relationship with autonomy from parents. Strong support was provided for this hypothesis in reference to both autonomy from mothers and autonomy from fathers with strong negative beta coefficients. In a similar manner, Hypothesis 5
proposed that parental intrusive control would inhibit or demonstrate a negative relationship with autonomy from parents. However, the standardized beta coefficients for intrusive control in neither the maternal or paternal models attained significance, indicating no support for the fifth hypothesis.

Hypothesis 6 proposed that parental supportiveness would be a positive predictor of autonomy from parents by Appalachian adolescents. Substantial confirmation of this sixth hypothesis was provided by strong, positive beta coefficients in both of the autonomy from mothers and fathers models. Finally, Hypothesis 7 proposed that the use of reasoning by parents would foster or be a positive predictor of autonomy from mothers and fathers by Appalachian adolescents. Confirmation of the seventh hypothesis was provided by a positive beta coefficient for maternal reasoning that attained significance in reference to autonomy from mothers and approached significance in reference to autonomy from fathers.

Discussion

The purpose of this study was to determine the degree to which several family relationship, family structural, and parent-youth relationship variables within a sample of Appalachian families would predict adolescent autonomy. The specific independent variables that were significant in both the fathers’ and mothers’ models included parental punitiveness, which was found to inhibit autonomy, and parental support, which was found to be a positive predictor of autonomy. Familism was a significant positive predictor of autonomy from fathers and closely approached significance as a positive predictor of autonomy from mothers. Nontraditional gender role attitudes of females were a positive predictor of autonomy from fathers but was not a significant predictor in the model for autonomy from mothers. Parental reasoning was a significant positive predictor of autonomy from mothers and closely approached significance as a positive predictor in the model for autonomy from fathers.

Sociodemographic/control variables that were significant included the parental divorce (marital status) variable as a positive predictor of autonomy from mothers and adolescents’ age as a positive predictor of autonomy from fathers. Nonsignificant independent variables for both models included parental intrusive control, gender-of-adolescent, parents’ educational attainment, and the marital status variables consisting of parental separation, widowhood, being single, and the category “other.”
Overall, the predictive models for adolescent autonomy from mothers and fathers in this study confirmed previous research on samples from the dominant U.S. population. Some of the impressions of Appalachian parenting practices were confirmed, whereas other stereotypes were contradicted. The models for mothers and fathers explained roughly 35 percent of the dependent variables, suggesting that the variables for this study made sense conceptually as predictors of autonomy from parents. Moreover, the findings from this study have implications for important conceptual issues addressed in this study and for practical application as well.

A finding in this study consistent with research literature conducted on mainstream U.S. samples was parental punitiveness as a negative predictor of adolescent autonomy from mothers and fathers (Eisenberg, 1999; Strauss, 1994). Punitiveness consists of parental behavior that is forceful and excessively controlling in nature. This form of coercive behavior is intended to restrict youthful behavior in an arbitrary way and includes both physical and verbal coerciveness directed at adolescents (Maccoby & Martin, 1983). The use of such harsh control attempts by parents restricts the development of adolescent autonomy by resisting freedom of action, communicating hostility, and devaluing the adolescent as a person. Punitiveness is a key behavioral component of the authoritarian parenting style, a parental typology that has been found to discourage adolescent autonomy (Baumrind, 1991; Lamborn, Mounts, Steinberg, & Dornbusch, 1991). Parental punitiveness communicates rejection to the recipient, who then may develop less confidence to make their own decisions (Peterson, in press; Peterson & Hann, 1999). The finding that punitiveness was a negative predictor of adolescent autonomy, in a manner consistent with mainstream, urban parent-youth relations, also refutes modest evidence suggesting that punitiveness might be more normative and have somewhat different consequences within Appalachian families (Wilson & Peterson, 2000).

Consistent with previous research on parental behaviors that encourage adolescent development, was the positive relationship found in this study between parental support and adolescent autonomy. Parental support directed at the young equips adolescents with the abilities to confidently make decisions on their own and evaluate social situations independently. Through praising, approving, encouraging, and communicating warmth, a parent conveys to adolescents that they are valued and accepted (Barber & Thomas, 1986; Maccoby & Martin, 1983; Peterson et al., 1999). Furthermore, a warm and supportive family environment may be the most important contributor to adolescent autonomy (Steinberg, 2001). Research demonstrates
that a supportive family context is a critical contributor to the development of autonomy by adolescents (Spear & Kulbok, 2004). The accepting and nurturing behaviors that comprise parental support have been found to foster aspects of individuality such as identity formation, self-esteem, and autonomy (Parker & Benson, 2004; Peterson, in press).

An unexpected outcome of this study was that familism predicted adolescent autonomy for the Appalachian sample in a positive rather than negative manner. Familism is a collectivistic social value of Appalachian culture which emphasizes loyalty to the family unit rather than individual goals (Triandis, 1995). Additionally, familism emphasizes ties to extended kin as a source of identity, providing youth with a sense of cohesiveness and support (The Rural and Appalachian Youth and Families Consortium, 1996). This collectivistic value is often reputed to be in direct conflict with the emphasis on individualism in mainstream U.S. society (Wilson & Peterson, 2000). By common European American standards, these collectivist values may seem rigid or even intrusive (Peterson, in press), yet, for the Appalachian sample in this study, familism and the collectivistic values it embodies actually fostered autonomy. This finding is consistent with proposals offered by other researchers, providing evidence that Appalachian socialization differs from that of the mainstream U.S. culture (Hicks, 1992; Peters, Wilson, & Peterson, 1986; Peterson & Hann, 1999; Wilson & Peterson, 2000). Instead of inhibiting autonomy, Appalachian familism appears to foster a kind of autonomy from parents that is compatible with an immediate social context that may be more collectivistic than the dominant traditions of U.S. culture. Adolescents from the mainstream urban culture, in contrast, are socialized within immediate family contexts that place greater emphasis on individualistic values and would likely be inhibited by familistic atmospheres that resemble those found in Appalachia.

Another expected result was that nontraditional gender role attitudes of female adolescents encouraged the development of autonomy, but only within the fathers’ not the mothers’ model. The literature on Appalachian culture has emphasized the continued existence of traditional gender role attitudes for females (Wilson et al., 1993). Women in Appalachia have been expected to defer autonomous goals in favor of conforming to traditional norms for marriage and motherhood (Keefe, 1988). Research has demonstrated that Appalachian females are more likely to see themselves as having limited futures and to view rural life as intrusive and controlling (Glendinning et al., 2003). Women who affirm traditional expectations are more likely to seek less autonomy than women who maintain more nontraditional gender role
attitudes. In contrast, women with nontraditional gender role attitudes would be likely to report greater autonomy from fathers, in particular, perhaps because males continue to be dominant in Appalachian culture and function as the primary sources of traditional gender-role expectations. Consequently, fathers, as the primary standard-bearers for traditional gender-roles, may be a greater focus than mothers for the efforts of nontraditional girls to attain autonomy (Crowley & Shapiro, 1982; Keefe, 1988; Wilson et al., 1993).

Parental reasoning also confirmed the hypothesis that this predictor would encourage the development of adolescent autonomy from parents. In contrast with harsh or intrusive forms of control, parental reasoning communicates respect for adolescents by encouraging the young to think about the consequences of their behavior and allows them to voluntarily comply with what the parent defines as acceptable (Maccoby & Martin, 1983). Reasoning encourages the development of a dialogue between parents and adolescents, with autonomy being a frequent outcome because parents resist imposing their will on the young. Typically, reasoning is a key aspect of authoritative parenting in which parents engage in regular discussions with adolescents about their expectations and desired outcomes (Baumrind, 1991). Parents who use reasoning encourage open communication, a relationship pattern that encourages adolescents to form their own opinions and de-emphasize forced compliance. Parental reasoning is a key aspect of socialization atmospheres that foster adolescents’ capabilities to make their own decisions and seek greater autonomy (Baumrind, 1991; Peterson, in press; Peterson & Hann, 1999).

Parental divorce, a marital status variable, also was found to demonstrate a significant positive prediction in reference to autonomy from mothers. Because mothers are often awarded primary custody of children more frequently than fathers, they often have greater or sole responsibility for raising children in single-parent homes. The stress of this added responsibility often leads to inconsistency in the mothers’ parenting behaviors and more permissive attitudes towards their children and adolescents (Buchanan, 2000, Sessa & Steinberg, 1991). As a result of mothers’ inconsistency and permissive attitudes, adolescents in divorced families have greater freedom following divorce (Turner, Irwin, & Millstein, 1991). These parenting changes within divorced families as compared to non-divorced families serve as possible explanations for why divorce fosters autonomy from mothers. Changes in parenting style following a divorce require greater self-reliance and behavioral independence by the young as parental control and monitoring decrease. Adolescents and children in divorced homes acquire greater independence,
self-responsibility, and decision-making power than the young from intact homes (Sessa & Steinberg, 1991).

Consistent with the finding that adolescents’ age predicted autonomy from fathers, it is logical to conclude that, as adolescents age, they will become more autonomous as they are given more responsibilities and face more complicated expectations associated with greater maturity. Research has confirmed that older adolescents report higher levels of autonomy than younger adolescents (Mayseless, Wiseman, & Hai, 1998). Specifically, older adolescents become less dependent on parents and more self-reliant as they de-idealize their parents, or realize that mothers and fathers are not all knowing but fallible human beings (Steinberg & Silverberg, 1986). This idealization of parents encourages adolescents to become more self-reliant and autonomous from parents (Sessa & Steinberg, 1991). Western cultures often socialize youth in the direction of individual success and personal achievement as adolescents grow older. As adolescents mature, they become more individuated and develop their own sense of identity as they seek and are granted greater autonomy from parents (Erikson, 1968; Sessa & Steinberg, 1991).

Despite the fact the logical results are evident in this study, limitations in sampling and measurement need to be acknowledged and evaluated for possible qualifications to the present findings. First, the participants for this study were members of a convenience sample and not representative of all adolescents in the Appalachian region. The adolescents who comprised the sample attended only two schools located in rural areas of Appalachia that were identified as depressed counties. As previously described, Appalachia is extremely diverse, both economically and socially, and is continually becoming even more varied in its sociodemographics, with varying income levels that range from severe economic distress to relative prosperity (Wilson & Peterson, 2000). Consequently, it is doubtful that the findings of the present study can be generalized to the great diversity that characterizes the general population of Appalachia. Moreover, no assessment was made about the extent to which the present adolescent respondents were members of families who were native to the Appalachia region for multiple generations. However, given the depressed nature of these Appalachian counties, extensive residential mobility by this sample is unlikely and most of the respondents are probably from families of long-time residence in Appalachia.
Another methodological limitation of this investigation was the low internal consistency reliability coefficient (.59) that resulted for the abbreviated version of the Bardis Familism Scale used in this study. Consequently, future research on the construct familism within Appalachian samples may require the identification and use of an alternative measure to assess this variable reliably. Despite this important measurement limitation, however, the present results indicated that, at least for some of the current literature, the positive findings for familism made at least some sense conceptually.

An important general objective of this study was to examine adolescent socialization within the context of rural Appalachia, a region of the United States often believed to have unique social and cultural characteristics. Compared to the dominant urban culture of the U.S., Appalachian society is often expected to place greater emphasis on traditional gender roles, collectivistic social values, and the importance of family ties over individual achievement or personal success (Wilson & Peterson, 2000). Although the present analysis addressed issues that might reveal unique patterns in Appalachian socialization, the lack of systematic research on parent-adolescent relations in Appalachia made any predictions quite tenuous and the present study largely exploratory in nature. Overall, the results of this study indicate that Appalachian parenting practices and the consequences for youthful autonomy are consistent with general patterns of scholarship on parent-adolescent relations in the urban, mainstream. Significant findings for parental variables such as parental reasoning, support, and punitiveness as predictors of adolescent autonomy from parents are consistent with previous research on mainstream, urban samples.

The one exception, the results for familism as a predictor of autonomy, was not found to inhibit autonomy from parents as is commonly expected in samples from urban, mainstream circumstances. Instead, familism fostered autonomy in Appalachian adolescents, suggesting that the kind of family ties present in Appalachian culture may foster rather than inhibit autonomy (Wilson & Peterson, 2000). Apparently, Appalachian familism may differ from mainstream cultural norms by fostering the interests of the group without diminishing the development of individuality. The family ties characteristic of Appalachian culture appear to provide youth with the support and confidence they need for self-direction, rather than functioning to inhibit progress toward autonomy from parents.
Another implication of this study is that further research is needed to understand more clearly the development of enhanced adolescent autonomy that results when parents have experienced a divorce. Previous research has demonstrated that adolescents from single-parent homes are often granted greater freedom as a result of their mother’s more permissive attitudes and changing parental behavior in response to the stress of divorce. However, it is unclear whether this additional autonomy has healthy or unhealthy consequences for the development of adolescents in Appalachia (Buchanan, 2000; Sessa & Steinberg, 1991; Turner et al., 1991). Family life educators will benefit from increased knowledge about adolescent autonomy in divorced homes and will be able to adjust intervention programs to respond to this potential risk.

Another implication for parent education programs is the need to encourage supportiveness and reasoning by parents because these behaviors have been found to foster autonomy in adolescents. In contrast, punitiveness was found to have a negative effect on autonomy and should be discouraged. Parenting classes on how to use support and reasoning, related discipline practices that are not arbitrary or harsh, and how to encourage adolescent autonomy would be beneficial for parent-adolescent relationships in Appalachia.

Finally, an overall assessment of these findings is that Appalachian parenting appears to be consistent with dominant U.S. parenting practices and that familism appears to have some positive consequences within Appalachian culture. Familism and the bonds it fosters between youth and parents can be viewed as a strength that does not contradict the development of individuality in the young. In the broader context of parenting that emphasizes support and reasoning, familism may encourage a sense of security and rootedness in one’s own heritage that creates a healthy basis for adolescent autonomy.
Table 1: Pearson’s Correlation Coefficients for Maternal Model

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Table 3: Descriptive Statistics

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Table 4: Maternal Model: Multiple Regression Analysis of Predictors of Adolescent Autonomy from Mothers.

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<tr>
<th>Predictive Variables</th>
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<th>Standardized Coefficient (Beta)</th>
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<td>Adjusted R Square</td>
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*Note. *p < .05; **p < .001; + approached significance*
Table 5: Paternal Model: Multiple Regression Analysis of Predictors of Adolescent Autonomy from Fathers.

<table>
<thead>
<tr>
<th>Predictive Variables</th>
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<td>.045</td>
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<td>Other</td>
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<td>1.506</td>
<td>-.010</td>
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</table>

**Model 1 Summary**

| Multiple Correlation R     | .151*               |                |                                 |
| Adjusted R Square          | .012*               |                |                                 |

| **Model 2**                |                     |                |                                 |
| Age of Adolescent          | .308                | .134           | .071*                           |
| Gender of Adolescent       | -.484               | .374           | -.045                           |
| Level of Education of Father| -5.432E-02         | .089           | -.019                           |
| Marital Status             |                     |                |                                 |
| Divorced                   | .452                | .370           | .038                            |
| Separated                  | 1.315               | 1.142          | .035                            |
| Widowed                    | -.658               | .995           | -.020                           |
| Single                     | -.136               | 1.465          | -.003                           |
| Other                      | .342                | 1.226          | .009                            |
| Theoretical Variables      |                     |                |                                 |
| Familism                   | .157                | .066           | .079*                           |
| Gender Role Attitudes      | 5.578E-02           | .041           | .049                            |
| Paternal Support           | .605                | .084           | .329**                          |
| Paternal Reasoning         | .125                | .067           | .083+                           |
| Paternal Punitiveness      | -.249               | .053           | -.239**                         |
| Paternal Intrusive Control | -8.039E-02          | .066           | -.060                           |

**Model 2 Summary**

| Multiple Correlation R     | .603**              |                |                                 |
| Adjusted R Square          | .350**              |                |                                 |

Note. *p < .05; **p < .001, + approached significance


Appendix

The following scales were used in the questionnaires filled out by adolescents.

**Demographic Variables**

The demographic variables including age and gender of the adolescent, parents’ marital status, and educational level of father and mother separately were assessed through the following questions:

- **How old are you?** 9 10 11 12 13 14 15 16 17 18 19
- **Are you male or female?** 1. Male 2. Female
- **Are your parents:** (circle answer)
- **What is the highest educational level of the person who functions as your father most often on a daily basis?**
  1. Some grade school
  2. Completed grade school
  3. Some middle or junior high school
  4. Completed middle or junior high school
  5. Some high school
  6. Completed high school or GED
  7. Completed high school and also had other training, but not college (e.g., technical training, business school)
  8. Some college
  9. Completed college
  10. Some graduate work
  11. Graduate degree, including M.D., M.A., Ph.D., J.D., etc.

*The same scale was used for educational level of the adolescent’s mother.*
Autonomy
Behavioral autonomy was measured by a 10-item self-report scale that was used in previous studies (Douvan & Adelson, 1966; Steinberg & Silk, 2002). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. I feel that this parent gives me enough freedom.
2. This parent allows me to choose my own friends without interfering too much.
3. This parent allows me to decide what is right and wrong without interfering too much.
4. This parent allows me to decide what clothes I should wear without interfering too much.
5. This parent allows me to choose my own dating partner without interfering too much.
6. This parent has confidence in my ability to make my own decisions.
7. This parent encourages me to help in making decisions about family matters.
8. This parent allows me to make my own decisions about career goals without interfering too much.
9. This parent allows me to make my own decisions about educational goals without interfering too much.
10. This parent lets me be my “own person” in enough situations.

Familism
Familism was measured by a 4-item scale based on ideas from the Bardis Familism scale (1959). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. Family responsibilities should be more important than my career plans in the future.
2. Despite opportunities in other areas of the country, I should try to live near my parents (legal guardians) in the future.
3. Family ties are more important than friendships outside of the family.
4. It is important for the family name to be continued.
5. A person should always be completely loyal to his or her family.
Gender Role Attitudes

Gender-roles were measured by a 10-item scale that was an adaptation of an instrument developed by Smith and Self (1980). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree. For computing scale scores and conducting the analyses, the traditional items were reversed coded.

1. The achievements of women in history have not been emphasized as much as those of men.
2. Women are by nature more emotional than men.
3. Unless it is absolutely necessary, women who have young children should restrict their activities and interests to the home.
4. In general, men tend to have more common sense than women do.
5. In general, working women are just as happy as housewives (women who stay at home and care for the children and household)
6. The career of men should take priority over the career of women.
7. Men are by nature more rational than women.
8. It is more important for men to be well educated than it is for women.
9. No woman’s life is really complete until she marries.
10. Women who choose not to have children are denying their true roles in life.

Parental Support

Within the Parental Behavior Measure (Peterson, et al., 1985; Supple, Peterson, & Bush, in press), 4 specific items that measured support were based on factor analytic study of the Hielbrun (1964) and Cornell measures (Devereaux, Bronfenbrenner, & Rodgers, 1969) of parental support. Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. This parent has made me feel that he or she would be there if I needed him or her.
2. This parent seems to approve of me and the things that I do.
3. This parent tells me how much he or she loves me.
4. This parent says nice things about me.
**Parental Reasoning**

A five item subscale measured adolescents’ perception of their parents’ use of positive reasoning or induction. Items were developed based on conceptualizations of Hoffman (1980). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. This parent explained to me how good I should feel when I did something she or he liked.
2. Over the past several years this parent has explained to me how good I should feel when I have shared something with other family members.
3. This parent explains to me how good I should feel when I do what is right.
4. This parent explains to me when I share things with other family members, that I am liked by other family members.
5. This parent tells me how good others feel when I do what is right.

**Parental Punitiveness**

Perceptions of parental punitiveness were measured using an eight-item subscale of the Parent Behavior Measure (Peterson, et al., 1985; Supple et al., in press). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. This parent hits me when he or she thinks I am doing something wrong.
2. This parent does not give me any peace until I do what he or she says.
3. This parent punishes me by not letting me do things that I really enjoy.
4. This parent yells at me a lot without good reason.
5. This parent punishes me by not letting me do things with other teenagers.
6. This parent is always finding fault with me.
7. This parent punishes me by sending me out of the room.
8. This parent punishes me by hitting me.
Parental Intrusive Control

The six-item subscale for intrusive control was taken from the Parent Behavior Measure (Peterson, et al., 1985; Supple, Peterson, & Bush, in press). Responses were given in a 4 point Likert-type scale ranging from strongly agree to strongly disagree for both mother and father separately.

1. This parent tells me that I will be sorry that I wasn't better behaved.
2. This parent tells me that someday I will be punished for my behavior.
3. This parent tells me that if I loved him or her, I would do what he or she wants me to.
4. This parent tells me about all the things that he or she has done for me.
5. This parent will not talk to me when I displease him or her.
6. This parent avoids looking at me when I have disappointed him or her.