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Lifecourse Priorities Among Appalachian Emerging Adults: Revisiting Wallace's Organization of Diversity

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Abstract

We examine how social demographics (gender, age, or race–ethnicity), census tract characteristics, and family environment during childhood relate to variability in the lifecourse priorities of 344 Cherokee and white youth during emerging adulthood (age 19–24). Analyses were performed using recursive partitioning and random forest methods to examine determinants of prioritizing education, family formation, economic establishment, self characteristics and close relationships, youth independence, conspicuous consumption, and community reliance. Overall, characteristics of census tracts were the most common and influential predictors of lifecourse priorities. Childhood family poverty, parental relationship problems, parental crime, and stressful life events were also important predictors. Race–ethnicity or cultural group (Cherokee vs. white), age, and gender were relatively unimportant. At this developmental stage and in this population, community characteristics and childhood family experiences may be better proxies for developmental settings (and resulting enculturated values and preferences) than social demographic variables (e.g., ethnicity or gender).

Keywords

lifecourse; emerging adulthood; recursive partitioning; American Indian; Appalachia

Introduction

In the 1961 book *Culture and Personality*, Anthony Wallace made a series of bold and progressive statements about the intersection of biological, psychological, and cultural levels of analysis in studying humankind that are surprisingly current in their relevance. He wrote, “It is about as meaningful to claim that ‘culture must be explained in terms of culture’ leaving out biological and psychological ‘levels’ of explanation, as to assert that ‘life must be explained in terms of life,’ without reference to chemistry and physics” (Wallace 1961:2). Yet over 45 years later, anthropology is still often wrought with tautological assertions about the power of culture and an absence of careful empirical work on biological and psychological causal pathways.

Wallace also wrote about the polar tendencies in anthropology to either make sweeping, global characterizations about modal cultural patterns, or to become lost in the endless variability of case studies. He proposed an alternate “middle ground” framework for thinking about the distribution of thoughts, feelings, and lifeways in populations: the

organization of diversity. He asks, “Is it necessary that all participants in a stable socio-cultural system have the same ‘map’ of the system in order that they may select the correct overt behaviors under the various relevant circumstances?” (Wallace 1961:31) and answers later, “Not only can societies contain subsystems, the cognitive maps of which are not uniform among participants; they do, in fact, invariably contain such systems” (Wallace 1961:39). Thus, according to Wallace, culture has both shared and nonshared aspects; our task is to map and understand this variability.

Wallace developed the concept of “mazeways” to describe the flexible, dynamic, and diverse representations of cultural and social context held by individuals, including “(1) goals and pitfalls (values, or desirable and undesirable end-states), (2) the ‘self’ and other objects (people and things), (3) ways (plans, processes, or techniques) which may be circumvented or used ... to facilitate the self’s attainment or avoidance of values” (Wallace 1961). Wallace saw mazeways as variable and changing in a population, constrained only to the similarity necessary to provide a common language for meaningful social interaction and complementary, reciprocal social behavior.

Despite Wallace’s early critiques of a modal approach to culture, one of anthropology’s central concerns remains how modal group differences in behavior, experience, and ways of seeing the world are created and reinforced. In general, the analytical constructs used by anthropology and other social sciences to uncover or describe group differences have focused on the “big three” socially constructed categories: race–ethnicity (or cultural group), gender, and socioeconomic class. However, the social organization of knowledge likely follows more subtle routes, contingent on differences in experience, interest, or social context that cut across such gross categories. The subtleties of Wallace’s mazeways cannot be sufficiently captured by a limited set of social categories, and empirical research is bearing this out. For example, recent work in social epidemiology has demonstrated the impact of neighborhood characteristics on a wide variety of health outcomes over and above the influence of “classical” deterministic exposure variables such as race–ethnicity, education level, or family poverty (Kawachi and Berkman 2003; Leventhal and Brooks-Gunn 2003).

In 2002, Brown (the lead author) entered the field to chart the lifecourse priorities of Cherokee and white Appalachian emerging adults (aged 19–24) living in western North Carolina. Emerging adulthood has recently been proposed as a developmental phase that extends from the late teens through the twenties and features an emphasis on play and exploration at the expense or delay of “classical” lifecourse milestones such as marriage and career (Arnett 2000; Masten et al. 2004). Although a fair degree is known about the lifecourse priorities of relatively wealthy, educated (and often white) emerging adults in the United States, less is known about the content, diversity, and determinants of lifecourse priorities among emerging adults from rural areas, economically marginalized backgrounds, and racial–ethnic minorities. Differences by racial–ethnic group have been described (Arnett 2003), but these observations beg the question of the developmental origin and more proximal determinants of such differences.

Here, we couple Wallace’s groundbreaking theoretical work with current data description and analytic techniques to explore the organization of diversity in lifecourse priorities among Appalachian emerging adults. Specifically, we use a rich data set to examine the impact of area of residence and childhood developmental context on variability in lifecourse priorities during emerging adulthood. We compare the relative influence of childhood family context, residential area characteristics, and standard demographic predictors of variability in how Cherokee and white emerging adults in Appalachia set lifecourse priorities.

Two tree based classification methods were used to examine the predictors of lifecourse priority clusters: random forest analysis (Breiman 2001a) and recursive partitioning (Zhang and Singer 1999). Although a method unusual in anthropology, recursive partitioning and random forest analysis is gaining increasing traction in the health sciences as a method of detecting complex relationships in data sets that are described in detailed quantitative terms. Applications are currently most common for classifying clusters of genes or profiles of gene expression associated with a particular health outcome (Diaz-Uriarte and Andres 2006). These methods have also been used in investigating biological profiles associated with increased mortality (Gruenewald et al. 2006). These techniques are particularly well suited to examine determinants of variability in outcomes within data sets that are richly described.

These methods allow us to stay true to Wallace's original vision of human development and the organization of diversity within and across groups, as well as the detailed and systematic approach to values and cognitive models in his mazeway concept. Furthermore, these methods have certain advantages over traditional regression techniques, including the ability to analyze interactions and nonlinear associations between a large number of variables that are thought to be important for predicting the outcome of interest. With their capability of handling richly described data, recursive partitioning and random forests are particularly well suited for realizing Wallace's vision of integrating multiple levels of analysis in examining the organization of diversity in human thought and action.

Methods

Sample

The participants in this study are part of a longitudinal research project focused on families and health, the Great Smoky Mountain Study (GSMS). Of the 1,420 total GSMS participants, 350 are Native Americans from the Eastern Band of the Cherokee Indian; all eligible Cherokee aged 9, 11, or 13 in 1993 who agreed to participate in the study. The remaining 1,070 participants are a representative sample of mostly white youth living in the 11 counties of Western North Carolina. Potential participants were selected from the population of some 20,000 children using a household equal probability, accelerated cohort design (Schaie 1965), and were oversampled for risk using a phone-screening interview. A full description of the methods used in GSMS recruitment and data collection can be found in (Costello et al. 1996). The life circumstances of GSMS participants have been tracked an average of nine times (via annual or semiannual household interviews) since their induction to the study.

A subsample of 348 Cherokee and white youth completed the Life Trajectory Interview for Youth (LTI-Y) (Brown et al. 2006). The LTI-Y was generated through more than a year of structured ethnography, and represents the consolidated output of both qualitative and quantitative research on youth lifecourse models. For the following analyses, we used data from 344 of these 348 participants; four participants were dropped because of inadequate LTI-Y data. Of these 344 participants, 204 were white (104 female, 100 male) and 140 were Cherokee (72 female, 68 male). Age ranged from 19–24 at time of interview, with a weighted mean of $21.2 \pm .17$ [SE]. All analyses of the determinants of lifecourse priorities were performed with sample weights to correct for psychobehavioral risk and racial-ethnic oversampling in the original GSMS sample, and to thereby return the sample to U.S. Census indicators of demographic representation for the region (11 counties in western North Carolina).

Lifecourse Priorities

The LTI-Y was developed over 13 months of ethnographic fieldwork involving 132 individuals participating in 21 life history interviews 60 focus groups, and 150 pilot card sort interviews (Brown et al. 2006). The interweaving of focus groups and one-on-one interviews led to the characterization of three main lifecourse domains for positive attainment by Appalachian youth: lifecourse milestones, 12 items considered most important to attain in life; socioemotional resources, 20 items considered most important for being happy and satisfied in life; and material goods, 15 items considered most important for living “the good life;” and one negative domain of 20 items considered to block or delay desired lifecourse outcomes, lifecourse barriers. For the purposes of this article, we analyze the three positive domains only.

The main dimension of concern for the following analyses involves a card sort task that asks participants to create a set of essential items for lifecourse attainment. Participants received a full set of items for each domain (milestones, socioemotional resources, and material goods). They were then instructed to remove cards one-by-one until they were left with a model of the “bare minimum, basic life” (milestones), “bare minimum for the good life” (material goods), or “things you need to be happy and satisfied” (socioemotional resources). They were instructed to remove as many items as possible without compromising the basic function of each domain, and could remove anywhere from none to all of the cards. This procedure left a set of items considered most essential, which we hereafter refer to as lifecourse priorities. We used K-means cluster analysis on the 47 lifecourse priorities items contained within milestones, socioemotional resources, and material goods to identify clusters of items that grouped together in these domains (described further in Results).

Childhood Context and Census Tract Characteristics

All participants were drawn from the Great Smoky Mountains Study (GSMS), and have been interviewed every one to two years since they were approximately ten years old. Because of the extensive documentation of the home and community circumstances of GSMS participants early in life, this allows us to test the relative strength of classical demographic variables (e.g., race–ethnicity, gender, or socioeconomic background), other aspects of childhood social context, and census tract characteristics in determining the lifecourse models and priorities of Appalachian youth during the transition to adulthood.

For these analyses, we used recursive partitioning (Zhang and Singer 1999) and random forest analysis (Breiman 2001a). These computational statistical techniques are designed to detect and describe relationships between a large number of independent variables and single outcomes; the so-called “wide data” problem. For this large set of independent variables, we used three standard demographic indicators; age, ethnicity (Cherokee or white), gender, 26 variables characterizing family and community “risk,” and four variables characterizing the census tracts where GSMS participants grew up.

The 26 family–community risk variables measure (1) parental characteristics (parental unemployment, parental school dropout, parental education, teen parental figures, teen biological mother, stepparent, single parent, adoptive parent, parental depression, conflict with parents, parental psychiatric disorders, parental criminal convictions), (2) household characteristics (family poverty, poor home structure, household crowding, high rate of family moves, time in foster home, unstable family structure), (3) relationships between parents (poor relationships between parents, violence between parents), (4) relationships with parents (inadequate parental supervision, parental neglect, harsh, overprotective, or scapegoating parents), and (5) other risk exposures (dangerous neighborhood or school, delinquent peers). The average exposure to these factors (over ten periods of measurement)

was used for all variables (see Table 1). The four variables characterizing the residential census tract in which participants grew up were: percent rural households, percent of persons below the federal poverty line, percent of persons over the age of 25 with a BA or higher degree, and percent of persons in working class jobs (see Table 1).

Statistical Analysis

Recursive partitioning and random forest analyses have a number of advantages over the use of traditional linear regression approaches (Breiman 2001b). First, these methods can appropriately describe a population that is much more comprehensively characterized than with the usual small number of potential predictor variables that are amenable to standard regression analysis. In regression analyses, fitting a large number of potential predictor variables may result in a number of associations that are not reliable because of the well-known “multiple comparisons” problem. Our implementation of recursive partitioning and random forests use methods to internally cross validate our analyses to produce results that are less likely to be because of multiple comparisons. Because both methods also determine the cut points for each variable that are optimally predictive, they have advantages over traditional regression, where assumptions of linearity or inappropriate categorization may result in errors in modeling the appropriate functional form between the predictor and outcome variables. Finally, recursive partitioning has the advantage of being a person- rather than variable-centered technique, yielding output that is expressed in terms of groups of individuals.

Recursive Partitioning

Recursive partitioning was implemented in the open source statistical computing environment, “R” (R Development Core Team 2008), using the R package and function `rpart` (Therneau and Atkinson 2007). The regression trees were created through three basic steps. First, the `rpart` algorithm examined all independent predictors of a particular lifecourse priority cluster, and picked the particular split point within a particular factor that best differentiated levels of the outcome. Second, this process was then repeated for each of the new subsequent clusters. This process continued to expand the number of nodes in the tree until the default cost complexity parameter (a sum of classification error and number of nodes in the tree) of 0.01 was reached or the minimum node size of 20 observations was reached. There were few missing values, but in these limited cases surrogate splits were used to choose the variable on which to split. Third, tenfold cross validation was used to calculate the cost complexity parameter (which allows an empirical comparison of the best fitting trees balancing fit with the number of predictors) for trees of different size, and trees were pruned to minimize this value, using the tree with the lowest cost complexity value to minimize the relative error and create a more parsimonious tree. Advantages of regression classification over random forests include the clearer interpretability of single trees and the clusters of characteristics that are identified through the trees.

Random Forests

A second method that we used to examine the predictors of lifecourse priority clusters was random forests, again implemented in the open source statistical computing environment, “R” (R Development Core Team 2008), using the R package `randomForest` (Liaw and Wiener 2002). The basic approach follows from a single regression tree as described above, but instead a large number (500) of trees are created. The difference with the random forest approach is that each of the regression trees is created with a subset of the overall data, as well as with a random selection of the overall number of possible predictors. Although this does not allow the ease of interpretation of a single regression tree, the results have been shown to be more reliably predictive than results from a single regression tree (Breiman 2001a). To provide an interpretation of the best predictors from the random forests, we

calculate the variable importance measure for each of the potential predictor variables, using the “importance” function in the R package “randomForest.” This variable importance is calculated by measuring the prediction accuracy of each tree before and after permuting each predictor variable. The difference between these two predictions is averaged over all of the trees. Thus, variable importance is an average (over all of the trees) of how well a tree predicts with an accurate level of a particular variable, as compared to a completely randomized value of that variable. The principle advantage of random forests over regression trees is that results are more robust to the exclusion of particular variables and less sensitive to random variation in the analytic sample. Because of different relative advantages of regression trees and random forests, we present and compare results from both methods.

Results

Clusters of Lifecourse Priorities

K-means clustering (statistical package Ucinet 6; Borgatti et al. 2002) was used to cluster the 47 positive lifecourse items. A nine cluster solution optimized model fit ($r^2=.457$) and complexity. To cross-validate, cluster solutions were run with four sample splits (i.e., poor vs. nonpoor, male vs. female, Anglo vs. Cherokee, and below vs. above median age). Eight of the nine original clusters were repeated across these analyses. Sixty-five of 81 clustering solutions formed identically, and nonidentical solutions rarely concerned more than one item per cluster. One cluster—technology use—contained only two items and was dropped from subsequent analyses. There were seven remaining clusters: education, family, economic establishment, self characteristics and close relationships, youth independence, conspicuous consumption, and community reliance (see Table 2).

Random Forests

Seven random forest analyses were run using each lifecourse priorities cluster (education, family, etc.) as a separate dependent variable and demographics (race, gender, age), childhood context (family poverty, parental depression, etc.) and census tract characteristics (percent poverty, percent working class, etc.) for a total of 33 independent variables. We report the ten predictors with the highest level of variable importance for each lifecourse priority cluster, along with the calculated value for the increase in node purity yielded by each variable (see Table 3).

The importance of standard demographic variables in predicting lifecourse outcomes was modest at best. Neither race–ethnicity nor sex was a top ten predictor of any of the lifecourse priority clusters. Family social class and structure variables appeared infrequently as top predictors.

In contrast, proximal childhood and family context variables and census-derived variables were consistent predictors of lifecourse priorities. Four of 26 childhood and family context variables consistently ranked in the top ten predictors of lifecourse priorities: high impact stressors, low impact stressors, parental relationship problems, and parental criminal convictions. These variables are generally perceived to be developmental “insults” or major stressors. All four census tract variables figured heavily in the lifecourse priorities of Appalachian youth. Census poverty and census educational attainment were ranked in the top ten variables for all seven lifecourse priorities clusters, whereas percent rural households and percent working class ranked in the top ten across all but one cluster.

Recursive Partitioning

Recursive partitioning determines efficient cut points in a set of independent variables for predicting risk a particular outcome (here, lifecourse priority clusters). Through iterations of this “branching” process, an optimal prediction tree is derived.

Three lifecourse priority clusters were determined by cut points in single variables, creating two groups. Tract poverty levels determined variability in the prioritization of family items (have children, get married, settle down, good partner); those growing up in census tracts with more poverty prioritized family formation at a higher rate. Meanwhile, the prioritization of economic establishment items (first house, permanent job, financial security) fell along the lines of exposure to traumatic events, with a subgroup of participants who had experienced high levels of traumatic stressors prioritizing these items at the lowest rate. Prioritization of the conspicuous consumption cluster (recreational vehicles, big or nice house, etc.) fell along the lines of census tract poverty; those who grew up in census tracts with higher poverty levels prioritizing these items at a higher rate (see Table 4).

Variability in the remaining clusters was determined by two to three variables, yielding three to four groups. Prioritization of educational items (high school degree, college degree, higher education) fell along the lines of parental neglect, census tract working class, and family poverty. The group of GSMS participants with a history of parental neglect prioritized the lowest average number of educational items. Meanwhile, participants who grew up in low working census tract (with no history of parental neglect) showed the highest average educational priorities. Two middle groups were formed by participants without a history of parental neglect who grew up in high working class census tracts. Across these two groups, experiencing low levels of family poverty was associated with higher educational priorities, and high family poverty with lower educational priorities (see Table 4).

Prioritizing self characteristics and close relationships (e.g., passion or focus, self-esteem, family support, and family time) was related to the presence of a stepparent in the home, exposure to family poverty, and family structural instability (divorces and remarriages). Having lived with stepparent was associated with the highest prioritization of these items. The group prioritizing these items at the lowest rate experienced both family poverty and an unstable family structure during childhood.

With respect to youth independence items (e.g., moving out of parents’ house, hanging out with friends or partying), relative prioritization fell along the lines of family poverty and gender. Participants experiencing low levels of family poverty formed the largest group of individuals ($n=224$), prioritizing this cluster at a rate of 86 percent. Among those experiencing high family poverty, females prioritized youth independence items at a much higher rate than males.

Prioritizing community reliance items (e.g., community reliance, or government or Tribal support) was determined by census tract working class and census tract education. The highest prioritization of this cluster was among participants from census tracts with fewer working class residents and fewer college educated adults. Meanwhile, the lowest prioritization of community reliance items was among participants from higher working-class census tracts.

Discussion

In this study, we used two techniques to describe the patterning of variability in lifecourse priorities among Appalachian youth. In doing so, the goal was to stay true to Wallace’s

notions of mazeways; the complex, developmental origin of diversity in ways of seeing the world within and across cultures.

Random forest analyses indicated the set of variables that were most important for delineating groups of participants with similar levels of endorsement for individual lifecourse priorities clusters. In this case, all four census tract variables were consistently important predictors of lifecourse priorities. With regard to individual and family-level exposures, experiences of high impact stressors, low impact stressors, parent relationships, and parent criminal convictions were also strong and consistent predictors. Most notably, two “classical” determinants of diversity in life perspectives—race–ethnicity (cultural group) and gender—were virtually unrelated to variability in lifecourse priorities. Moreover, variables related to family socioeconomic class (i.e., family poverty, parental education) only rarely appeared as important predictors, as did age.

Recursive partitioning analyses also indicated the importance of census tract characteristics, which appeared in four out of seven trees. High tract working class helped differentiate groups with lower educational priorities and lower prioritization of community reliance items. Meanwhile, high tract poverty helped identify groups with higher family priorities as well as greater emphasis on conspicuous consumption items.

Departing slightly from random forest analyses, one variable related to social class (family poverty) also played a prominent role in creating recursive partitioning trees; high family poverty helped identify groups with lower educational goals, as well as groups with lower emphasis on self characteristics and close relationships. These results are concordant with other evidence indicating poverty’s erosive effects on educational attainment (Brooks-Gunn et al. 1999) and psychological functioning (Costello 1997). Exposure to family poverty also helped uncover a strong gender difference in the prioritization of youth independence items, with high poverty males showing the lowest prioritization of this cluster and high poverty females showing the highest. Notably, neither race–ethnicity (cultural group) nor age helped define group variability for any of the lifecourse priorities clusters.

Some groups created via node splits in census tract characteristics were both intuitive and concordant with previous research; for example, a large literature details how community disadvantage and exposure to less educated neighbors are related to lower educational for individuals (Brooks-Gunn et al. 1993; Duncan 1994), and a similarly large literature documents the relationship between poverty at the family or community level and early fertility (Davis and Blake 1956; South and Crowder 1999). In other cases, results were more counterintuitive and unexpected. For example, participants who grew up in census tracts with low poverty rates were less likely to prioritize conspicuous consumption items. It is possible that participants from these wealthier areas found such items to be less relevant social signals of lifecourse success.

Exposure to high impact stressors, despite figuring heavily in random forest analyses, only appeared once in recursive partitioning trees. Exposure to these traumatic stressors helped identify a small group of individuals with very low prioritization of economic establishment items (e.g., financial security, career). This result is consistent with the literature linking exposure to stressors with future discounting and the deprioritization of long-term goals (Chisholm 1999).

Two family-level predictors that did not rank in the top ten for random forest analyses appeared in recursive partitioning trees. First, exposure to parental neglect helped to differentiate a group with particularly low educational priorities. This is consistent with the literature on family disadvantage and educational attainment (Brooks-Gunn et al. 1999). Second, the presence of a stepparent in the household helped to differentiate a group that

placed particularly high emphasis on self characteristics and close relationships. Given that the next cluster showed only a 4 percent difference, this result should be interpreted with caution.

Conclusions

The absence of emerging adults' status as Cherokee or white in predicting lifecourse priorities is notable, given that almost 100 percent of Cherokee youth live on a separate tract of land with its own governing body, shops, history, and cultural identity. Nevertheless, white households are virtually contiguous with Cherokee households along the borders of the reservation, and many Cherokee youth elect to go to county high schools off of the reservation. As a result of shared experiences and regional identity, the lived experiences of being Cherokee or of being a white "native" of the Appalachian Mountains often overlap. For example, a close Cherokee friend of the lead author was admiringly described by other Cherokee youth as "true redneck" because of a history of risk taking in vehicles, whereas the Birdtown (home of the Bird Clan) area of Cherokee was described as the home of "white Indians."

Similarly, it is important to note the relative absence of gender as a pertinent organizer of diversity in lifecourse priorities, given the extensive literature on gender as an organizing force during the transition to adulthood (Cross and Markus 1993; Fussell and Furstenberg 2005) and the presumably heavily gendered world of the American South (Cohen and Nisbett 1994; Thorn et al. 2004). This may be an historical or cohort phenomenon, whereby strict gendered definitions of identity are collapsing even among more isolated rural youth.

Meanwhile, characteristics of the neighborhoods where participants grew up loomed as important organizers of diversity in lifecourse priorities, which accords with their increasing observed importance in the fields of public health and social epidemiology (Kawachi and Berkman 2003), education (Duncan 1994), demography (South and Crowder 1999), and psychology (Plaut et al. 2002). Prevailing wisdom indicates standard demographic predictors (Fussell and Furstenberg 2005), cultural group (Lutz 1983), and immediate family circumstances (Harkness and Super 1983) carry a heavy weight in the developmental tuning of lifecourse perspectives. Given this, it is noteworthy that the community census tract characteristics of GSMS participants' environments trump all other variables in our analyses. In her 1980 article on culture and social behavior in *Ethos* (Whiting 1980), Whiting argued that the primary impact of parents on the socialization of children is through their control of children's assignment to particular developmental settings. In the case of Appalachian (and perhaps other) emerging adults, it may be that community or neighborhood context is more powerful in determining developmental settings and the resulting enculturation of values and preferences.

Wallace appears to have anticipated the importance of subtle and cross-cutting aspects of experience and context, a focus that is replacing earlier attention to broad proxy variables such as race-ethnicity, gender, and class in many fields. In what seems now like a prophetic formulation of contemporary developmental science, Wallace states, "Progress now can be made by discovering empirically what the limits of confidence are in predictions of personality development. Such limits presumably will vary, both with the complexity and identity or the particular aspect of the developmental process being predicted, and with the number and identity of independent variables on which the prediction is based" (Wallace 1961:116).

Among Appalachian youth, neighborhood context and past family circumstances trump the influence of standard proxy indicators of social experience such as gender, race-ethnicity, or

cultural group. Race–ethnicity and gender held much less sway in the organization of diversity in lifecourse priorities than would be expected from prevailing trends in social theory. This is not to say that such differences are inconsequential. Rather, the assumption that these differences always and most accurately describe the social organization of knowledge and preferences appears untenable. Wallace presaged this insight in 1961 when he wrote, “Statements about the ‘___’ [any cultural or ethnic group] and ... [their] cultural and personal characteristics may still be made, but they are now understood as conveniently brief expressions for more cumbersome formulations specifying sub-group membership and relative frequency” (Wallace 1961:92).

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Table 1

Descriptives, Independent, and Dependent Variables

Variable	Mean	SE	Variable	Mean	SE
Low impact stressors	0.30	0.02	Parental neglect	0.02	0.00
High impact stressors	0.30	0.02	Parent-child conflict	0.04	0.01
Family poverty	0.26	0.03	Parental psychiatric problems	0.13	0.01
Poor home structure	0.01	0.00	Parental substance use problems	0.05	0.01
Teen parents	0.21	0.04	Parental criminal convictions	0.11	0.01
Parent unemployment	0.10	0.01	Parental relationship problems	0.18	0.02
Parental school dropout	0.14	0.02	Dangerous neighborhood or school	0.01	0.00
Household crowding	0.06	0.02	Harsh or overprotective parenting	0.01	0.00
Stepparent	0.18	0.03	Tract % rural households	0.59	0.03
Single parents	0.29	0.03	Tract % poverty	0.13	0.01
Adoptive parent	0.03	0.02	Tract education (% of adults over 25 with BA or higher)	0.20	0.01
Time in foster home	0.00	0.00	Tract working class	0.71	0.01
Frequent moves	0.09	0.01	Education priorities cluster	0.76	0.03
Inadequate parental supervision	0.06	0.01	Family priorities cluster	0.74	0.03
Parental depression	0.04	0.01	Economic establishment priorities cluster	0.68	0.04
Interparental violence	0.01	0.00	Socioemotional resources priorities cluster	0.92	0.01
Delinquent peers	0.13	0.02	Youth independence priorities cluster	0.83	0.02
Teen mother	0.20	0.04	Material consumption priorities cluster	0.66	0.03
Unstable family	0.16	0.04	Community reliance priorities cluster		

Note. For independent variables, average sample exposure during ages 9–16 is reported.

Table 2

Lifecourse Priority Clusters and Items

Cluster	Items (percent of sample endorsing each item)	Inter-item r*
<i>Education</i>	High school degree/GED (95); College degree (59); Higher education (77)	.4052
<i>Family</i>	Have children (56); Get married (73); Settle down (90); Good partner (76)	.3465
<i>Economic establishment</i>	First house (66); Permanent job (77); Financial security (64)	.3106
<i>Socioemotional resources</i>	Honest/responsible/polite (99); Common sense/think for yourself (99); Determination/motivation/drive (96); Passion/focus (95); Health/fitness (90); Self-esteem (97); Life experiences (77); Plan ahead/have goals (87); Respect elders/know cultural roots (82); Family support/family time (96)	.4131
<i>Youth independence</i>	Driver's license (88); First car or truck (83); Move out of parents' house (85); Start first job (94); Hanging out with friends/partying (64)	.4209
<i>Material consumption (consume)</i>	Recreational vehicles (67); Big/nice house (89); Expensive sports/hobby equipment (53); Fancy/expensive vehicle (78); Home entertainment center (75); Jewelry (40); Vacation home (92); Nice clothes (74)	.5007
<i>Community reliance</i>	Community connections (51); Govt/Tribal support (27); Status/power in the community (16)	.3596

Note. This is the average inter-item correlation obtained from K-R 20 scale analysis. The alpha coefficient is not reported, as this is highly influenced (increased) by the number of items included.

Table 3
Top Ten Variables by Importance Rank (Increase in Node Purity) in Random Forests

	Education	Family	Economic	Socioemotional	Youth	Consume	Community
1	Parent relationship (1.72)	Age (2.24)	<i>Tract rural</i> (3.01)	High impact stressors (.78)	Low impact stressors (1.17)	Parent relationship (1.48)	Tract education (2.15)
2	<i>Parent crime</i> (1.62)	High impact stressors (1.60)	High impact stressors (1.96)	Parent unemployment (.39)	Parent relationship (1.06)	Tract poverty (1.47)	High impact stressors (2.08)
3	Tract poverty (1.51)	<i>Tract rural</i> (1.56)	<i>Tract working class</i> (1.67)	Parent relationship (.35)	Tract poverty (1.04)	High impact stressors (1.41)	<i>Tract working class</i> (2.02)
4	Low impact stressors (1.49)	Low impact stressors (1.52)	Tract poverty (1.62)	Unstable family (.32)	Single parent (.95)	Low impact stressors (1.33)	Tract poverty (2.02)
5	Parent school dropout (1.48)	Tract education (1.39)	Tract education (1.55)	Tract education (.32)	High impact stressors (.93)	Tract education (1.33)	<i>Tract rural</i> (1.75)
6	Tract education (1.47)	Parent relationship (1.33)	Parent relationship (1.53)	Tract poverty (.31)	<i>Tract rural</i> (.90)	Age (1.27)	Low impact stressors (1.71)
7	<i>Tract rural</i> (1.38)	<i>Tract working class</i> (1.29)	Low impact stressors (1.45)	<i>Parent crime</i> (.31)	<i>Parent crime</i> (.84)	<i>Tract working class</i> (1.15)	Parent psychiatric (1.63)
8	Family poverty (1.38)	Tract poverty (1.29)	Frequent moves (1.39)	Low impact stressors (.28)	Tract education (.84)	<i>Tract rural</i> (1.14)	<i>Parent crime</i> (1.60)
9	High impact stressors (1.36)	<i>Parent crime</i> (1.27)	Single parent (1.36)	<i>Tract working class</i> (.27)	Poor home structure (.81)	<i>Parent crime</i> (1.09)	Parent relationship (1.52)
10	<i>Tract working class</i> (1.35)	Single parent (1.23)	Parent psychiatric (1.17)	Parent psychiatric (.26)	family poverty (.76)	Parent unemployment (1.00)	Age (1.51)

Variables in **bold** appear in the top ten predictors across all clusters. Variables in *italics* appear in all but one cluster. "Parent psychiatric" refers to parental psychiatric problems. "Parent relationship" refers to parental relationship problems.

Table 4

Groups Created by Recursive Partitioning Trees

	Group 1	Group 2	Group 3	Group 4
Education	88% (n=159) No parental neglect, Tract working class <73%	78% (n=84) No parental neglect, Tract working class >73%, Low family poverty	53% (n=62) No parental neglect, Tract working class >73%, High family poverty	45% (n=39) Parental neglect
Family	80% (n=264) Tract poverty >11%	62% (n=80) Tract poverty <11%		
Economic	73% (n=309) Low traumatic events (high impact stressors)	34% (n=35) High traumatic events (high impact stressors)		
Socioemotional	97% (n=79) Stepparent in household	93% (n=121) No stepparent, No family poverty	88% (n=120) No stepparent, Family poverty, Stable family structure	71% (n=27) No stepparent, Family poverty, Unstable family structure
Youth	91% (n=55) High family poverty, Female	86% (n=224) Low family poverty	60% (n=65) High family poverty, Male	
Consume	78% (n=170) Tract poverty >15%	62% (n=174) Tract poverty <15%		
Community	46% (n=137) Tract working class <78%, Tract education <16%	41% (n=36) Tract working class <63%, Tract education >16%	21% (n=90) Tract working class 63–78%, Tract education >16%	19% (n=81) Tract working class >78%

Note. Groups are listed from highest to lowest prioritization of each cluster.