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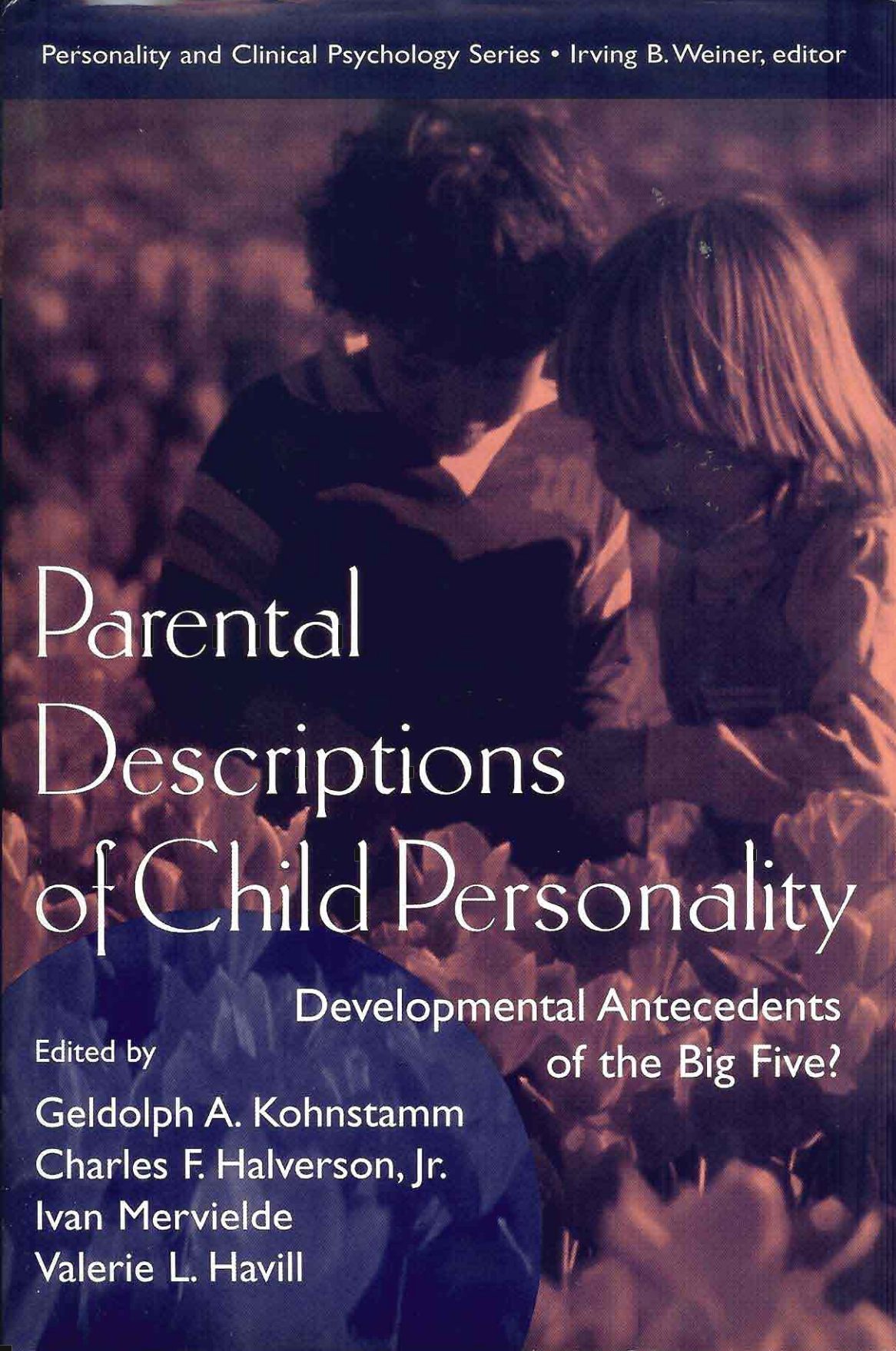

# Parental Descriptions of Child Personality

## Developmental Antecedents of the Big Five?

Edited by
Geldolph A. Kohnstamm
Charles F. Halverson, Jr.
Ivan Mervielde
Valerie L. Havill

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# *Developmental Changes in Personality Descriptions of Children: A Cross-National Comparison of Parental Descriptions of Children*

Anne-Marie Slotboom
*Leiden University*

Valerie L. Havill
*University of Georgia*

Vassilis Pavlopoulos
*University of Athens*

Filip De Fruyt
*University of Ghent*

Researchers studying personality development have been concerned with a variety of issues, one of them being the lack of consensus about the structure of adult personality. In the adult personality domain, however, many researchers have adopted the Five-Factor Model (FFM) as a guide to the structure of personality traits (e.g., Digman, 1990; Goldberg, 1990; John, 1989; McCrae & Costa, 1985). This model of adult personality has provided a set of adult dimensions that can serve as targets of temperament and personality dimensions assessed in infancy and childhood.

The preceding chapters in this book have focused on the structure of early temperament and personality and how they might be linked to the FFM in adulthood. This framework can help us in describing the links between infancy, childhood, and adulthood personality. Although many theorists have tried to hypothetically link the different temperament constructs and the FFM (e.g., Hagekull, 1994; Martin, Wisenbaker, & Huttunen, 1994; Rothbart, 1989), so far very few studies have tried to recover the five-factor structure in personality ratings of children. The question

remains whether the five factors assessed in adult personality can also be usefully applied to descriptions of children's personality. Digman and Inouye (1986) were one of the first to replicate the FFM in teacher ratings of sixth-grade children. Strong resemblance was also found between analyses of the California Child Question (CCQ) set (Block & Block, 1980) and the FFM (John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994; van Lieshout & Haselager, 1994). Nevertheless we still have little data about whether the five general dimensions important for describing adult personality are also salient to parents when describing individual differences in children of different ages. Is a construct such as Conscientiousness, for example, equally salient to parents of preschool children and to parents of early adolescents? The project described in this book has used a lexically based approach to study individual differences in children. A major purpose of this study was the collection of free descriptions that identified personality dimensions most salient to parents of 3- to 12-year-old children. From these descriptors, we plan to develop new individual difference measures of personality. The factor structure underlying these questionnaires can then be compared across age and country to search for continuity or change in the personality structure of children, as well as to determine cross-national comparability of factor structure.

Studying continuity and change in personality characteristics has been an important issue for many years (e.g., Bloom, 1964; Kagan, 1980; Moss & Susman, 1980). According to Asendorpf (1992), a construct shows continuity over time if it can be operationalized by the same behaviors at different times. Kagan (1980), however, was more precise. He made a distinction between *homotypic* and *heterotypic* continuity and would classify Asendorpf's conceptualization as "homotypic continuity." Kagan defined heterotypic continuity as continuity at the *construct* level, with changing indicators as children grew older, while the underlying construct remained the same. For example, Kagan and Moss (1962) showed behavioral continuity by employing a broad concept instead of a narrow range of behaviors. They demonstrated continuity over long time spans by classifying certain behaviors under a single concept of masculinity. Their analysis of masculinity revealed continuity despite phenotypic change. Both continuity and change can be described at different conceptual levels: Change can be at the mean levels of a personality attribute or in correlational patterns that imply normative developmental transformations (Moss & Susman, 1980). Before considering changes in mean levels or stability across time, it is necessary to know whether there is some invariance of the correlational structure across ages (Costa & McCrae, 1994).

Pedlow, Sanson, Prior, and Oberklaid (1993) searched for continuity of factor structures across ages and assumed heterotypic continuity across time. They used age-appropriate questionnaires to measure temperament

in a longitudinal sample of 450 children from infancy to 8 years. Their study was based on the nine-dimensional framework of Thomas and Chess (1977). They used confirmatory factor analysis to test the factor structures underlying the questionnaires at different ages. In some cases, no similarity was found in phenotypic behaviors measuring a specific factor. In that case, similarity of factor meaning was decided according to conceptual relations among the factors. The researchers found that the dimensions of Approach, Irritability, Cooperation-Manageability, Inflexibility, Rhythmicity, and Persistence showed continuity from infancy to 8 years. An Approach factor was consistently present from infancy onward, although the items changed from those tapping shyness and reactions to new experiences in infancy and toddlerhood to items tapping sociability in childhood. Irritability and Cooperation-Manageability were found in both infancy and toddler periods. In childhood, aspects from both factors were combined in what they called Inflexibility. According to Pedlow et al. (1993), Inflexibility might be seen as a core aspect of difficultness, including both negative emotionality and management problems. Persistence, defined by a child's tendency to stay on task and to pay attention for long periods, showed continuity from age 3 onward. Approach and Rhythmicity were the only factors showing continuity from 6 months of age onward.

Bronson (1966) was also concerned with heterotypic continuity. She saw this continuity as the most interesting and meaningful form and stated that to regard phenotypically different behaviors measured at different age periods as equivalent, one had to have an underlying stable theoretical framework. To create such a framework, she searched for phenotypically similar behaviors in children between the ages of 5 and 16, behaviors that represented an enduring, underlying personality dimension. She used a pool of 34 different behaviors to "represent descriptive statements that interviewers felt were useful and important to make in their over-time description of the subject's development" (p. 128). She found three developmental dimensions: Withdrawal-Expressiveness, Reactivity-Placidity, and Passivity-Dominance. The first dimension seemed to reflect characteristics that we now would label as Extraversion. The second dimension reflected characteristics that would be interpreted in the FFM as a blend of Negative Emotionality and Agreeableness. Although the first two dimensions were relatively independent of each other, the Passivity–Dominance dimension overlapped with the other two dimensions. These three dimensions then summarized behaviors with high degrees of stability and were good predictors of other behaviors.

Guerin and Gottfried (1994) searched for continuity in children from ages 2 to 12 years in the nine temperament dimensions of Thomas and Chess (1977). Just as in the Pedlow et al. (1993) study, they used questionnaires based on the nine-dimensional model, although no factor analyses

were performed. They did not compare ages when scales with different item content were used. Continuity was assessed by comparing means of the same cohort across time. Most developmental changes were found in the preschool period (from age 3 to age 5), with fewer changes noted in the elementary school period. From age 3 to age 5, a developmental pattern of greater biological regularity, increasing adaptability, milder intensity of reaction, and more positive mood was found. Only activity and sensitivity-reactivity showed developmental changes in both preschool and elementary school periods. With increasing age, children were seen as less active and more reactive. The researchers concluded that with increasing age, more temperament dimensions showed invariance in mean levels. In contrast to Pedlow et al. (1993), Guerin and Gottfried (1994) searched for homotypic continuity and looked for change in the importance of the same dimension at different age levels.

Most researchers interested in development in infancy and childhood have focused on measures of temperament. Research in this area has been hampered by an overwhelming number of concepts and scales (Strelau, 1991), making the accumulation of findings and the communication among researchers very difficult. Consensus about the main dimensions of adult personality, however, could enhance the search for links between both fields. Now that the FFM is an accepted model among many different researchers, an increasing number of studies have searched for relations between temperament dimensions and the FFM (see, for example, Hagekull & Bohlin, 1996; Lanthier & Bates, 1995). One of the main goals of the project described in this book is the exploration of relation between child personality and the FFM. The study described here is aimed at building a lexicon of personality descriptors provided by parents of children in four different age groups. From this lexicon, questionnaires will be developed to measure the underlying structure of parental ratings of children aged 3 to 12. To search for the main personality dimensions salient to parents of children ranging from preschool to early adolescence, it is necessary to know first *which* personality characteristics are salient to parents of children of different ages. The behavioral repertoire of children changes considerably from preschool to middle childhood. Thus, before discussing continuity or change in personality structure across ages, it is important to know the age-specific behavioral repertoire of children reported by their parents. We then can develop age-appropriate questionnaires to measure personality development in children. From a developmental perspective, we have to balance face validity and appropriateness of items at a given age with attempts to provide as much item overlap as possible across ages. The development of questionnaires guided by these two directives enables the assessment of patterns of consistency as well as patterns of change in developmental functions and individual differences (McCall, 1986).

To develop age-appropriate questionnaires, we need to know which characteristics are salient at different age periods. In this chapter, parental free descriptions of children aged 3, 6, 9, and 12 years are compared. This study was carried out in seven different countries. The participation of different countries affords us the opportunity to examine the cultural universality of major dimensions of temperament and personality in childhood as perceived by parents.

One of the main differences between this study and other studies searching for the main temperament–personality dimensions in children is that parents were provided the opportunity to decide which characteristics they thought were important when describing children of different ages. The advantage of using a free-description approach is that it permits us to study personality characteristics that are most meaningful to parents. We assumed that the traits parents mentioned depended on not only their children's actual behavior, but also parental expectations, values, and belief systems about what traits are important for children in their own culture (Kagitcibasi, 1982).

A number of studies have explored the beliefs and expectations of parents in different cultures about the development of children (Goodnow, Cashmore, Cotton, & Knight, 1984; Hess, Kashiwagi, Azuma, Price, & Dickson, 1980; Rosenthal & Bornholt, 1988). Hess et al. (1980), for example, asked mothers in the United States and Japan whether they expected each of 38 different behaviors to occur before the age of 4, at the age of 4 or 5, or after the age of 6. The most striking results were differences across cultures. Japanese mothers expected their children to show emotional maturity, self-control, and social courtesy earlier than did mothers in the United States. Mothers in the United States, however, expected their children to show verbal assertiveness and social skills with peers earlier than did Japanese mothers. Goodnow et al. (1984) have also asked about mothers' "implicit developmental timetables," in an attempt to tap mothers' beliefs about the course of development. For example, mothers were asked whether a behavior present at one age (age 6) was more likely to remain stable or to change by the time the child was age 12. They found that behaviors regarded as desirable (e.g., friendly, generous to others) were regarded as likely to be stable. Behaviors regarded as undesirable (easily upset by mistakes, cries easily) were expected to change. These results were supported by those of Gretarsson and Gelfand (1988), who reported that mothers' perceptions of their children showed positive bias. Mothers participating in their study saw their children's positive characteristics, such as "She is a helpful child," as inborn and stable over time. Negative characteristics were seen as changing over time and were more often attributed to situational influences.

The studies of Goodnow et al. (1984), Hess et al. (1980), and Rosenthal and Bornholt (1988) showed that although mothers expected certain behav-

iors to show up earlier than others (e.g., compliant behavior was expected at an earlier age than certain social skills such as "Sympathetic to other children"), most differences occurred between cultures. Cultural values might also influence the way parents perceived their children's temperament and personality. Many cross-cultural studies of temperament and personality in children have been based on translated U.S. questionnaires and therefore have ignored the possible influence of ideas, beliefs, and values shared by parents living in different cultures. For example, Ahadi, Rothbart, and Renmin (1993) found a strong similarity in factor structure for their Children's Behavior Questionnaire (CBQ) in the United States and the People's Republic of China. They added, however, that "even if the underlying structure of temperament were invariant across cultures, there would still be important differences in personality cross-culturally, precisely because the individual's experiences would influence the manifestation of temperamental characteristics" (Ahadi et al., 1993, p. 370).

The present study focuses on changes and similarities in personality characteristics across age as seen by parents in different countries. In this chapter, we test whether parents' free descriptions of 3- to 12-year-old children, in different languages and from different cultures, can be coded into a categorization system based partly on the FFM. Using this Big Five-related categorization system, we demonstrate similarities and differences in age-related patterns of personality descriptors used by parents in various countries. The personality descriptors came from focusing on the language used to describe children of 3, 6, 9, and 12 years of age living in seven different cultures. We view culture as a template, primarily an ideation including beliefs, attitudes, rituals, social scripts, and ideals of a population; language is the expression that arises from culture. We recognize that using language as a medium to interpret feelings, thoughts, and perceptions is far from perfect, but it is, nevertheless, the best way to find out how parents think about children's personalities. Even if we could observe behavior as an indication of personality, the behavior would be placed into cognitive–linguistic categories. Asking people to tell us how they think might be as close as we can get to the "thinking through others" suggested by Shweder (1990).

## CHILDREN'S PERSONALITY CHARACTERISTICS AS SEEN BY PARENTS IN DIFFERENT COUNTRIES

### Sample

The following seven countries participated in this study: Belgium, the Netherlands, Germany, Greece, China, the United States, and Poland. Mothers, and in some countries also fathers, were asked to give completely

unconstrained descriptions of their children. If fathers agreed to participate, mothers and fathers were interviewed separately. Detailed information about the collection of samples in different countries and the procedure followed to analyze the contents of the free descriptions appears in chapter 1.

### Content Analysis of Free Descriptions

Some idea of the content and organization of parental personality descriptions of children in the different countries can be gained from the four examples we present here. These examples represent a very small sample of the total number of interviews held but provide an impression of the parental descriptions. Although the examples clearly illustrate differences among individual children, they obviously cannot reveal systematic differences between age groups or between different countries. We discuss systematic changes in descriptions between age groups and between countries later.

> Oh boy, for some reason, the first thing that came to my mind was precocious. She's fun loving, she's intelligent and I guess loving. She's a real loving, sweet person, and she likes to cuddle a lot. She's real interested in reading and learning, and she's real inquisitive. Particularly now she's going into first grade, and it's a big jump. I like the fact that she's real active. It's hard to be bothered by her because she's such a sweet person. She's very willing to please. She's real good at cooperating with other kids. She plays well with other kids, interacts with them well. (Father of a 6-year-old American girl)

> Just to start out saying that she's usually pretty laid back. She doesn't get in a hurry about anything. She's pretty energetic about what she wants to do, what she likes. She doesn't really have any sad days. I think she's really a happy child. She likes to read, and she loves to play outside, just with her brother. She's easygoing. She is just really open and honest with me now at 9 years old. And she's fun to have around. She's not a child that gets in a hurry. She's just slow, and she's a perfectionist about things. (Mother of a 9-year-old American girl)

> She is very eager to learn, she's good with words and language. She absorbs everything. But she's also rather jealous. She's not pigheaded. You can easily make things clear to her, and then she goes along with it. She gets on well with other children, but she likes to be the center of attention. She doesn't think there's anything wrong with that, especially at birthday parties. On the other hand, if she's drawing, she likes to do it on her own. Yes, she's very independent. (Father of a 6-year-old Dutch girl)

> He is very loyal. He feels responsible. For his brothers too, especially for the youngest. He organizes things for him or helps him clean up. And he's

very good with his hands. He's better with his hands than with his mind. He's also creative. But he does not like doing homework and tests. He becomes insecure and cries quickly. But if you help him and boost his confidence, then he is OK and can do it. (Mother of a 9-year-old Dutch boy)

## RESULTS AND DISCUSSION

### Frequency Distribution of Descriptors by Age Level

The focus of this chapter is on age-related changes in personality descriptions as given by parents living in different countries. Do parents of children ranging in age from 3 to 12 years differ in their frequency of use of descriptors classified in the various categories? To answer this question, the number of descriptive phrases used to describe a child, coded in any one (sub)category, was transformed into a proportion of the total number of descriptive phrases. Statistical analyses were performed, using the mean proportion of descriptors produced by parents. Analyses were performed on arcsine transformed proportion scores. The mean proportions shown in tables and figures are the untransformed data, so that scores can be easily interpreted. No significance tests were performed for (sub)categories accounting for less than 3% of the descriptors in all different groups (e.g., age groups, countries). As described in chapter 1, descriptors were coded either on the high or on the low end of a category. A global inspection of the data suggested different effects over age for descriptors coded at the high and the low end of each category. Therefore, it was decided to separately analyze descriptors coded at each end. First, results referring to the first five main categories are presented. Second, results referring to the eight remaining categories are presented.

Effects of country for each of the five main categories were discussed in chapters 2 through 6. Here we focus on age effects and age-by-country effects. Univariate results are separately discussed for each main category.

### Extraversion

*Extraversion High.* A significant univariate effect of age was found on descriptors coded at the high end of Extraversion, $F(3, 2237) = 27.1$, $p < .001$ ($\eta^2 = .035$). Parents of 3-year-olds described their children more in terms of descriptors coded at the high end of Extraversion than did parents of 6- to 12-year-old children (ranging from 25.1% for 3-year-olds to 17.1% for 12-year-olds). Figure 7.1 shows the grand means (arcsine transformed proportion scores) for each age group, including the 95% confidence limits. There was a clear linear decrease from age 3 to age 9 and no changes from age 9 to 12.

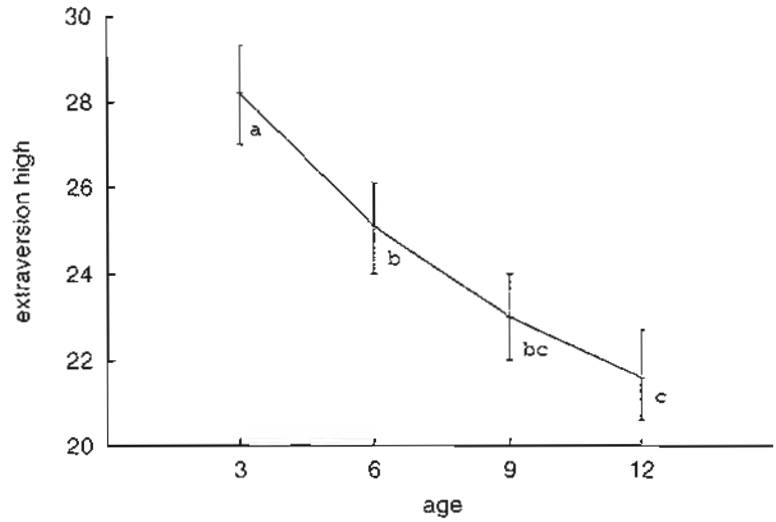


FIG. 7.1. Arcsine transformed means and 95% confidence intervals over countries for Category I, Extraversion high. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

These Extraversion results were summed across country (see Table 7.1). In all countries, except the United States and the Netherlands, there was a significant decrease in frequency of use of high Extraversion descriptors over age (see Fig. 7.2). Personality descriptors related to the high end of Extraversion were more salient in the perceptions of parents describing younger children.

Extraversion was divided into three facets: Sociability, Dominance, and Activity. The decrease in descriptors coded at the high end of Extraversion was caused primarily by a decrease in descriptors referring to high Sociability and high Activity. Both facets were used more by parents of younger children although the effect size was very small ($\eta^2$ = .019 and .014, respectively). The proportions of descriptors related to Sociability

TABLE 7.1
Average Proportions of Descriptors in High Extraversion

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* | $\eta^2$ |
|---|---|---|---|---|---|---|
| Belgium | $23.2_a$ | $21.8_{ac}$ | $16.7_b$ | $17.2_{bc}$ | 19.8 | .04 |
| Netherlands | 22.5 | 20.9 | 19.9 | 17.4 | 20.3 | .03 |
| Germany | $23.1_a$ | $23.1_a$ | $18.7_{ab}$ | $17.3_b$ | 20.9 | .05 |
| Greece | $24.0_a$ | $18.4_{ab}$ | $17.8_{ab}$ | $16.8_b$ | 19.1 | .02 |
| China | $22.5_a$ | $20.4_{ab}$ | $16.4_b$ | $17.1_{ab}$ | 18.4 | .03 |
| U.S.A. | 26.8 | 26.3 | 24.8 | 20.8 | 24.8 | .01 |
| Poland | $32.4_a$ | $21.0_b$ | $19.8_b$ | $15.6_b$ | 22.0 | .08 |
| Total | $25.1_a$ | $21.2_b$ | $18.4_{bc}$ | $17.1_c$ | 20.3 | .04 |

*Note.* Means sharing a common subscript are *not* significantly different from one another according to post hoc Scheffé tests ($p < .05$).

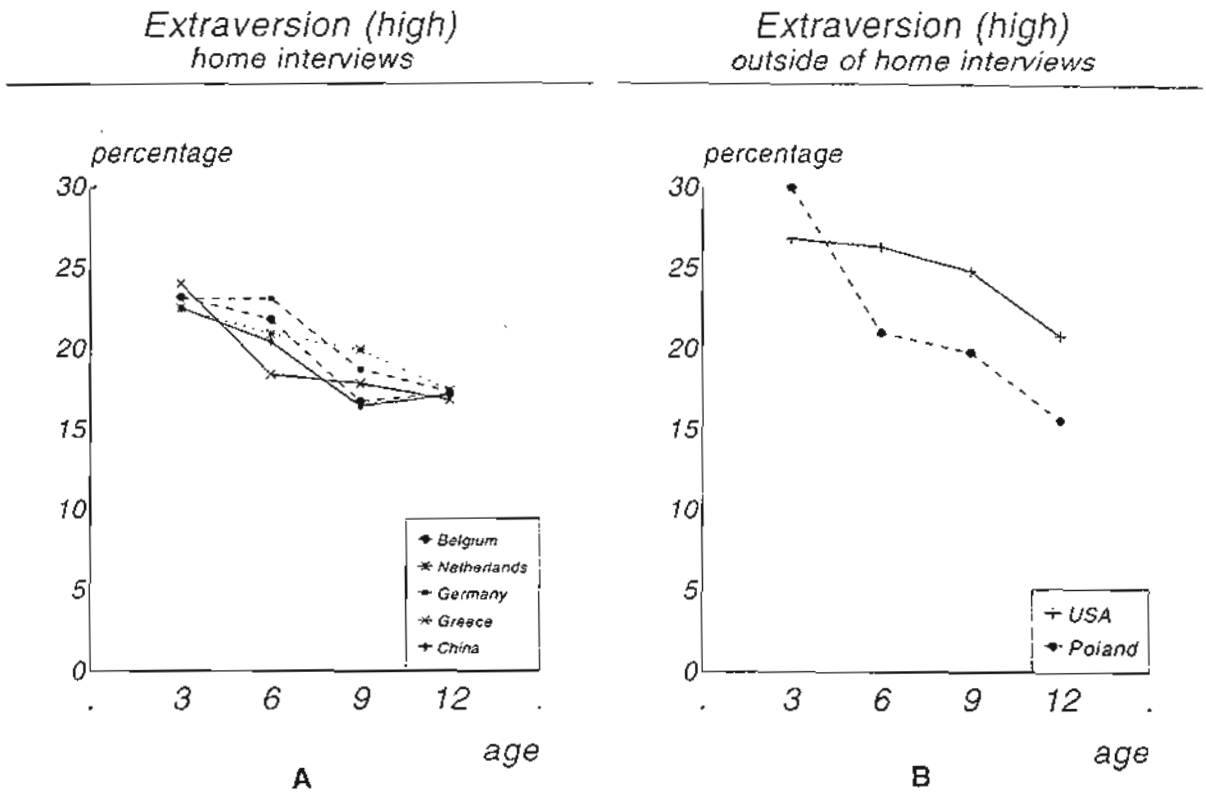


FIG. 7.2. Mean proportions of high Extraversion descriptors.

and Activity are shown separately for each country in Tables 7.2 and 7.3. A significant age effect for Sociability was found in three countries (China, the United States, and Poland). To a lesser extent, these trends were also found in the Netherlands and Germany. The largest decrease in high Sociability descriptors occurred before age 9. Perhaps Sociability is most salient to parents when exploration of the environment, including meeting new people and making contact with other children (at school), are important issues in a child's life.

TABLE 7.2
Average Proportions of Descriptors in High Sociability

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* |
|---|---|---|---|---|---|
| Belgium | 9.8 | 11.3 | 7.9 | 10.3 | 9.8 |
| Netherlands | 13.3 | 10.8 | 10.7 | 10.0 | 11.3 |
| Germany | 11.5 | 11.3 | 10.7 | 9.4 | 10.8 |
| Greece | 11.7 | 10.1 | 7.6 | 10.2 | 9.8 |
| China | $12.5_{ab}$ | $10.4_{a}$ | $6.9_{b}$ | $7.5_{ab}$ | 8.7 |
| U.S.A. | 15.1 | 11.7 | 12.9 | 9.9 | 12.4 |
| Poland | $15.9_{a}$ | $8.9_{b}$ | $7.2_{b}$ | $5.9_{b}$ | 8.7 |
| Total | $12.6_{a}$ | $10.5_{c}$ | $8.4_{b}$ | $8.7_{cd}$ | 10.0 |

*Note.* Means sharing a common subscript are *not* significantly different from one another according to post hoc Scheffé tests ($p < .05$).

TABLE 7.3
Average Proportions of Descriptors in High Activity

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* |
|---|---|---|---|---|---|
| Belgium | $6.6_a$ | $5.5_a$ | $4.0_{ab}$ | $2.7_b$ | 4.8 |
| Netherlands | 4.2 | 4.2 | 4.6 | 2.4 | 3.8 |
| Germany | 5.5 | 6.8 | 4.1 | 3.9 | 5.2 |
| Greece | $7.2_a$ | $5.5_{ab}$ | $6.3_{ab}$ | $3.8_b$ | 5.7 |
| China | 7.6 | 8.9 | 7.8 | 8.0 | 8.2 |
| U.S.A. | 10.1 | 11.8 | 11.0 | 9.8 | 10.7 |
| Poland | $14.0_a$ | $11.1_{ab}$ | $10.1_{ab}$ | $6.9_b$ | 10.4 |
| Total | $7.9_a$ | $7.6_a$ | $6.7_a$ | $5.4_b$ | 6.9 |

*Note.* Means sharing a common subscript are *not* significantly different from one another according to post hoc Scheffé tests ($p < .05$).

A significant decrease in Activity descriptors was found in Belgium, Greece, and Poland. Actually the frequency of use of Activity-related descriptors decreased over age in all European countries, with the most important decrease after age 9. In contrast, no age effect for Activity was found in China and the United States. Guerin and Gottfried (1994) did find, however, that with increasing age children were seen as less active. The difference in salience might or might not reflect actual change in mean level. In a comparison of 42 studies relating age to activity level, Eaton (1994) reported the presence of a curvilinear trajectory in the mean level of activity level in humans. Increasing activity was found from the very beginning of life to some time between 2 and 5 years, after which decreasing levels of motor activity were found. Although activity level is recognized as an independent dimension in different temperament models (e.g., Buss & Plomin, 1975; Thomas & Chess, 1977), most developmentalists have noticed a change from motor schemes in infancy to symbolic schemes in childhood and adolescence (Eaton, 1994). The decrease in Activity might reflect that laypersons, in this case parents, like experts in the field of developmental psychology, recognized the changing phenotype of Activity. We need to recognize, however, the disjunction between mean changes in temperament–personality measures and changes in salience. The decrease in Activity mentioned indicates that it is less salient to parents of older children. For Chinese and U.S. parents, their children's participation in sporting and athletic activities might be highly valued and very salient, a possibility that would account for no decrease in Activity mentions at age 9. In U.S. society this is exactly the age when increasing numbers of children participate in organized activities during evenings and weekends (e.g., gymnastics, soccer, baseball, martial arts, dance). Hence, parents might continue to mention how much their children practice the skills needed, their general energy level, and involvement in many different activities.

*Extraversion Low.* In contrast to the substantial proportion of descriptors coded at the high end of Extraversion, a relatively small proportion of descriptors was coded at the low end (overall $M = 7.2\%$). Not only were low Extraversion descriptors used less frequently by parents, but in contrast to decreasing proportions of descriptors referring to the high end of Extraversion, no important age trend was found for descriptors coded at the low end of Extraversion. Neither were there any country effects by age. Parents did not tend to employ either more or less shy, withdrawn, or passive descriptors from age 3 to age 12.

## Agreeableness

*Agreeableness High.* When the samples were combined, a very small increase in the proportion of descriptors coded as high on the Agreeableness dimension occurred between ages 6 and 9 (increasing from 12.6% to 13.9%), stabilizing after age 9. This trend is shown in Fig. 7.3, with 95% confidence intervals plotted for each age group. Parents of 9- and 12-year-old children tended to describe their children with more Agreeableness descriptors than did parents of 3- and 6-year-olds. Yet, when each country was analyzed separately, a significant age trend was found only in the Greek and Polish samples (Fig. 7.4). A further examination of the data revealed that these slight trends were due to an increase in the use of descriptors coded in the Helpfulness facet.

*Agreeableness Low.* A stronger univariate age effect was found on the low end of Agreeableness, $F(3, 2237) = 20.3$, $p < .001$ ($\eta^2 = .027$). After

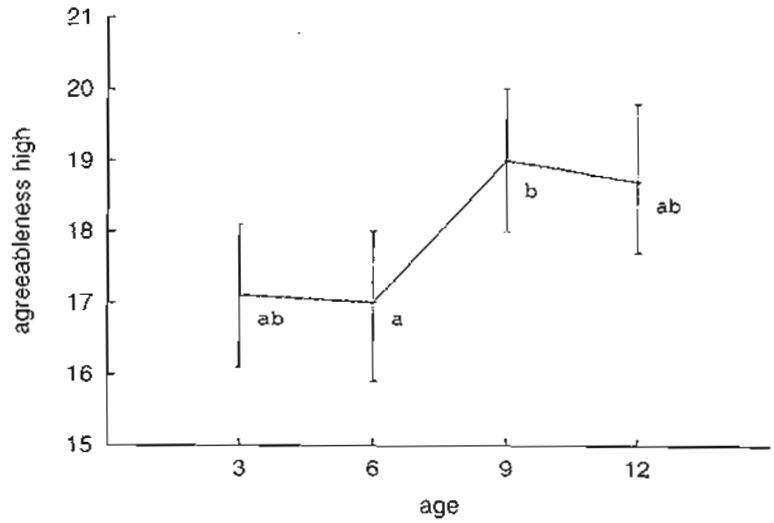


FIG. 7.3. Arcsine transformed means and 95% confidence intervals over countries for Category II, Agreeableness high. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

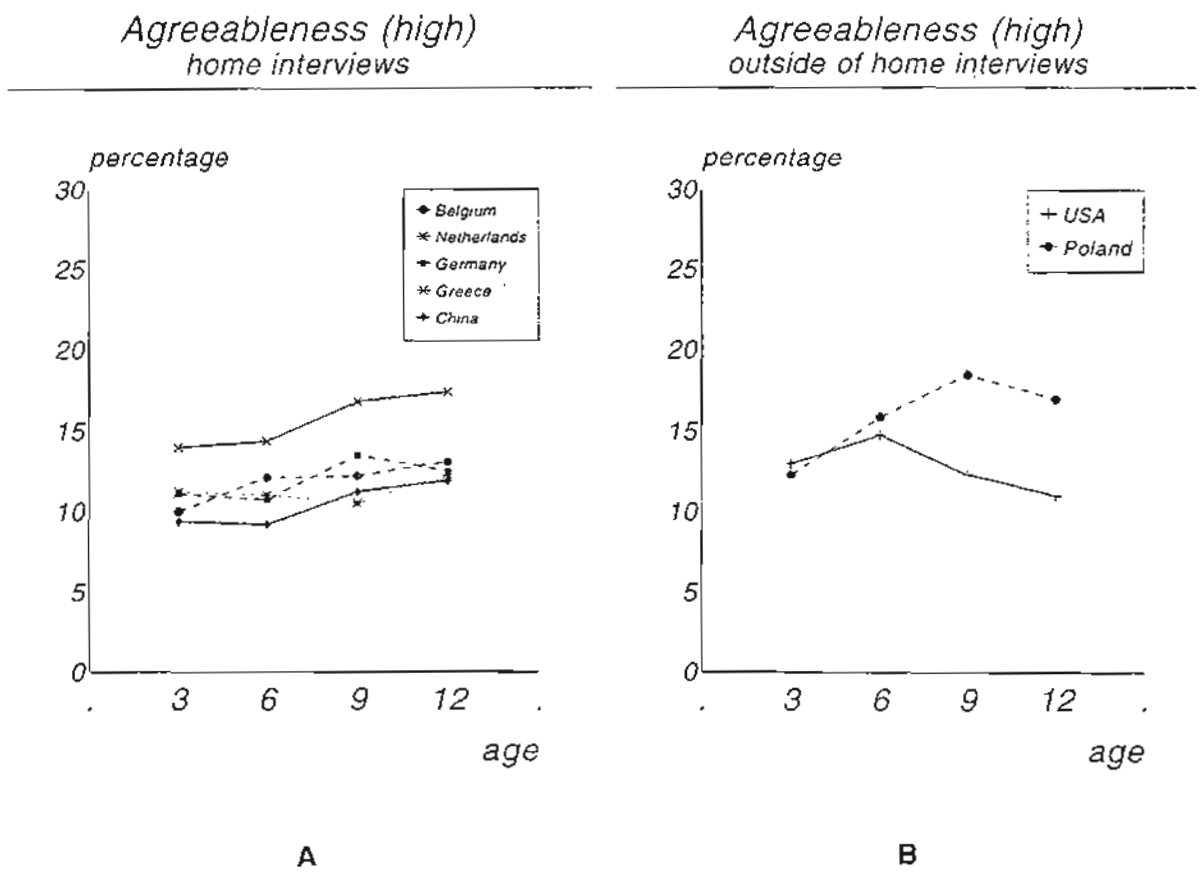


FIG. 7.4. Mean proportions of high Agreeableness descriptors.

aggregating frequencies across all countries, it was found that parents used low Agreeableness descriptors most frequently to describe 3-year-olds (10.2%), decreasing to 6.0% for 9-year-olds. Figure 7.5 shows that descriptors for 3-year-olds significantly differed from all other age groups.

Again, separate analyses were performed for each country, as seen in Fig. 7.6. This same trend was found in four of the seven countries (Belgium, Germany, Poland, and China). Parents of younger children described them more often with descriptors referring to the low end of Agreeableness than did parents of older children.

Agreeableness was divided into facets: Helpfulness, Manageability, and Honesty-Sincerity. The age trend for overall Agreeableness was due mainly to age changes in Manageability (see Table 7.4). Both at the overall level and at the within-country level, a decrease was found in the percentage of Manageability descriptors. In six of the seven countries, the strongest decrease was found between ages 3 and 6. Manageability seems to be more salient when describing younger children; parents of 3-year-olds were more likely to talk about disobedience and stubbornness than were parents of older children. Pedlow et al. (1993) showed that until the age of 4, Cooperation-Manageability was regarded as an independent factor, describing individual differences in young children. Manageability, which

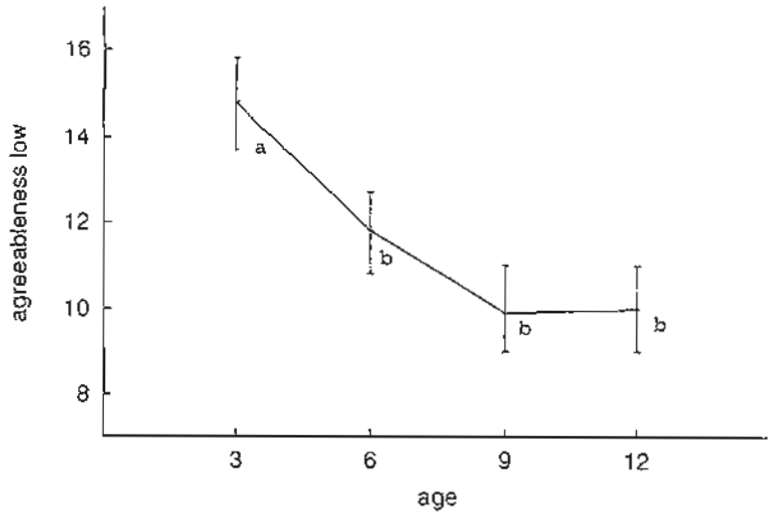


FIG. 7.5. Arcsine transformed means and 95% confidence intervals over countries for Category II, Agreeableness low. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

can be interpreted as socially demanding behavior, seems also related to one of the most widely used concepts in the temperament literature, namely, Difficultness (Bates, 1986). Factor analyses of our newly developed questionnaires will allow for exploration of the Manageability concept in parental perceptions of young children. Although Manageability was not found in the adult FFM, this facet in the original categorization

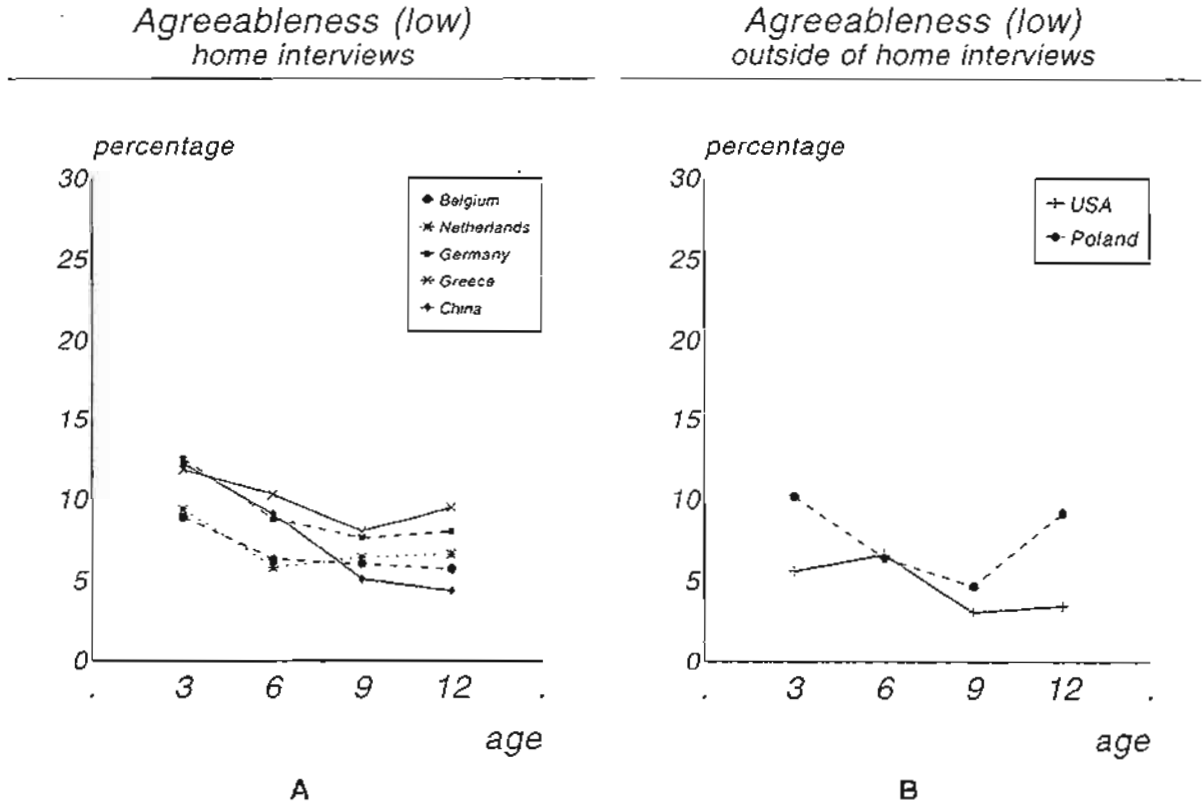


FIG. 7.6. Mean proportions of low Agreeableness descriptors.

TABLE 7.4
Average Proportions of Descriptors in Low Manageability

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* |
|---|---|---|---|---|---|
| Belgium | $6.2_a$ | $3.6_b$ | $3.5_b$ | $3.5_b$ | 4.2 |
| Netherlands | 7.4 | 4.7 | 4.1 | 4.3 | 5.3 |
| Germany | $9.8_a$ | $6.5_b$ | $5.3_b$ | $5.1_b$ | 6.9 |
| Greece | 9.0 | 7.8 | 6.1 | 6.7 | 7.4 |
| China | $10.7_a$ | $5.9_b$ | $3.7_{bc}$ | $2.7_c$ | 4.7 |
| U.S.A. | 4.8 | 4.8 | 2.0 | 2.2 | 3.6 |
| Poland | $8.3_a$ | $5.5_{ab}$ | $3.4_b$ | $5.7_{ab}$ | 5.8 |
| Total | $8.0_a$ | $5.7_b$ | $4.2_{bc}$ | $4.4_c$ | 5.5 |

*Note.* Means sharing a common subscript are *not* significantly different from one another according to post hoc Scheffé tests ($p < .05$).

system has proven to be quite useful in the identification of individual differences that were very important to parents during early childhood.

## Conscientiousness

*Conscientiousness High.* A strong univariate effect of age was found on descriptors coded at the high end of Conscientiousness, $F(3, 2237) = 47.5$, $p < .001$ ($\eta^2 = .06$). Parents of 3-year-olds seldom used high-end Conscientiousness descriptors (2.5%). With older children, parents used the category increasingly to account for 7.3% of all descriptors. Figure 7.7 shows that the strongest increase was found between ages 3 and 6, stabilizing after age 9.

Separate ANOVAs conducted for each of the seven countries show that in five of the seven countries the overall age trend was replicated

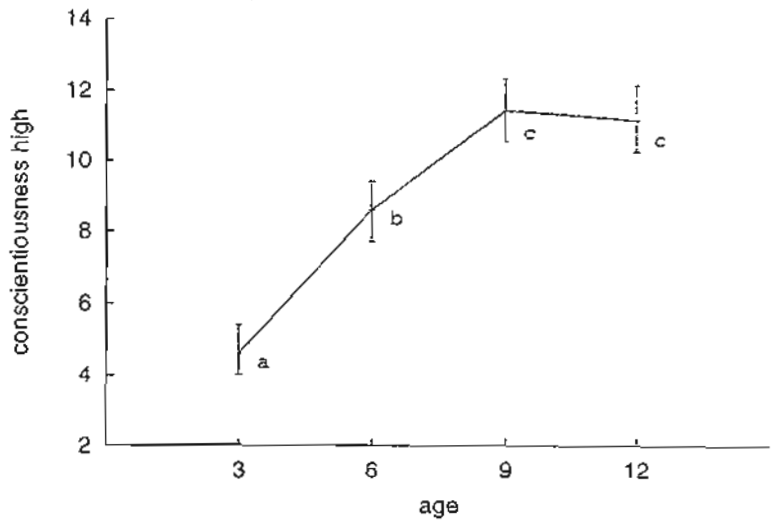


FIG. 7.7. Arcsine transformed means and 95% confidence intervals over countries for Category II, Conscientiousness high. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

TABLE 7.5
Average Proportions of Descriptors in High Conscientiousness

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* | $\eta^2$ |
|---|---|---|---|---|---|---|
| Belgium | $2.5_a$ | $3.5_{ab}$ | $6.0_b$ | $6.4_b$ | 4.5 | .06 |
| Netherlands | $2.0_a$ | $5.5_{ab}$ | $5.3_{ab}$ | $4.7_b$ | 2.3 | .05 |
| Germany | $2.7_a$ | $5.4_b$ | $5.4_b$ | $6.8_b$ | 4.9 | .07 |
| Greece | $2.1_a$ | $6.4_b$ | $9.3_c$ | $9.6_c$ | 7.0 | .15 |
| China | 5.7 | 6.7 | 7.0 | 7.9 | 7.1 | .0 |
| U.S.A. | 3.1 | 6.5 | 7.4 | 6.8 | 5.9 | .03 |
| Poland | $1.2_a$ | $3.4_a$ | $7.4_b$ | $6.7_b$ | 4.7 | .13 |
| Total | $2.5_a$ | $5.3_b$ | $7.1_c$ | $7.3_c$ | 5.6 | .06 |

*Note.* Means sharing a common subscript are *not* significantly different from one another according to post hoc Scheffé tests ($p < .05$).

(see Table 7.5). Only in China and the United States, was no age trend found for the high end of Conscientiousness. At the facet level, Carefulness and Diligence were used more as children's ages increased, both at global and the within-country levels. Diligence, however, showed the largest increase, ranging from 2.5% for 3-year-olds to 4.5% for 12-year-olds. Parents of school-age children talked more about their children being achievement oriented and diligent than did parents of toddlers.

***Conscientiousness Low.*** Comparing the proportions coded as low Conscientiousness, we found age and age-by-country effects. A univariate effect of age was found, $F(3, 2237) = 82.8$, $p < .001$ ($\eta^2 = .10$). The use of low Conscientiousness descriptors increased substantially over age (ranging from 0.9% for 3-year-olds to 6.7% for 12-year-olds). Figure 7.8 shows that

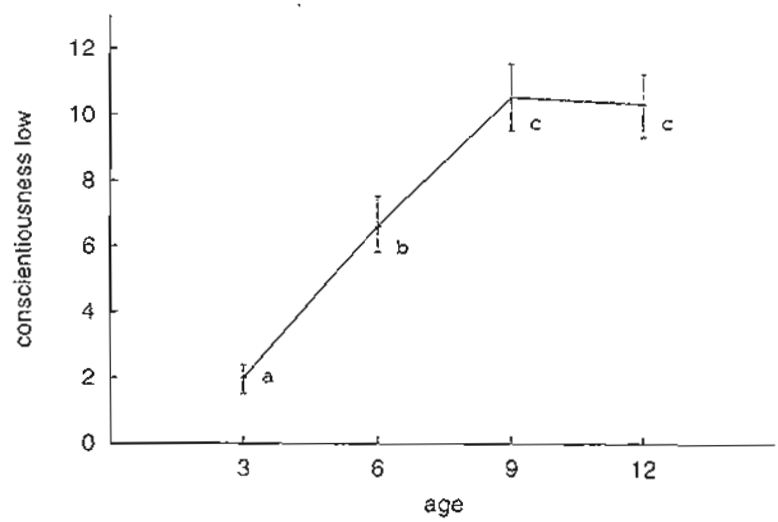


FIG. 7.8. Arcsine transformed means and 95% confidence intervals over countries for Category II, Conscientiousness low. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

low Conscientiousness had the same age trend as did high Conscientiousness. Figure 7.9 shows the changes in each country separately. With children's increasing age, parents in all countries talked more about characteristics referring to the low end of Conscientiousness. Further, fewer descriptors were used to describe 3-year-olds in any country. After age 3, parents increasingly used more low Conscientiousness terms to describe their children. The use of this category stabilized at ages 9 and 12. At the facet level, proportions of descriptors coded in Carefulness and Diligence increased across age. As children's age increased, parents increasingly described them as lacking in carefulness and diligence (e.g., concentration problems, sloppy behavior, laziness).

Martin et al. (1994) analyzed 12 large-sample factor analytic studies of questionnaires based on the original Thomas, Chess, and Korn formulation and found a factor tapping attentiveness or "task persistence" in 11 of the 12 studies. Task persistence in children is primarily descriptive of attentive behavior shown in learning or mental skill performance. Persistence, although seen in a rudimentary form during infancy, is clearly more easily observed by parents and teachers beginning in preschool years. This factor is logically related to Conscientiousness. Costa and McCrae (1985) used words like hardworking, self-disciplined, and persevering to describe the high end of this dimension in adulthood. We now have evidence that parents use similar phrases to describe their children.

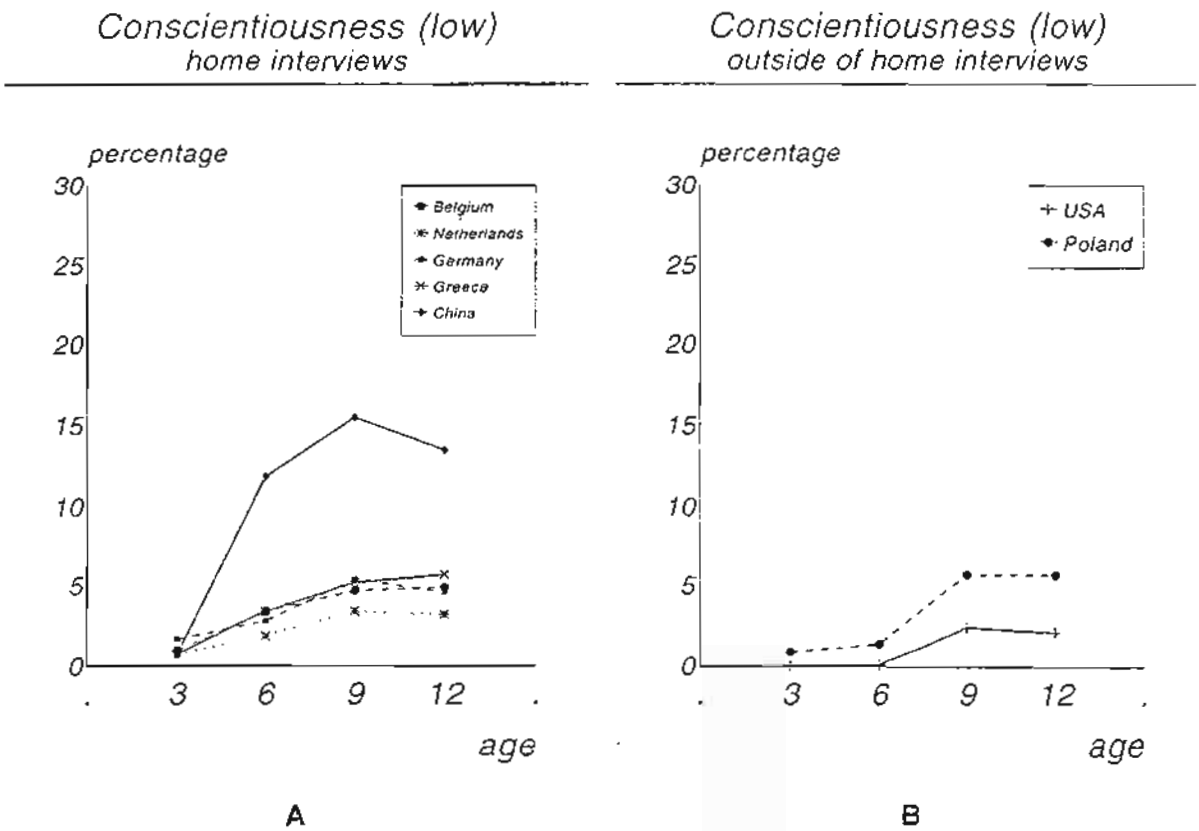


FIG. 7.9. Mean proportions of low Conscientiousness descriptors.

These characteristics became particularly salient when children reached school age.

A significant interaction effect of age by country was also found, $F = 4.0$, $p < .001$ ($\eta^2 = .32$). As seen in Fig. 7.12, very similar age-trend patterns were found in most countries; only China deviated from the overall pattern. In the Chinese sample, there was a sharp increase in the frequency of descriptors from age 3 (0.7%) to age 6 (11.9%). Chinese parents of 3-year-olds used about the same proportions of low Conscientiousness descriptors as did parents of 3-year-olds in other countries. From age 6, however, Chinese parents described their children with more descriptors such as "Easily distracted," "Not motivated enough," and "Indolent" than did parents in any other country.

Conscientiousness and Emotional Stability accounted for the fewest descriptors in all countries except in China. Although parents referred to Conscientiousness less often than to Extraversion or Agreeableness, the largest age effect was found for this dimension. In the age-related patterns across countries, the largest age effect was found for China, with low Conscientiousness descriptors deviating the most from the six other countries. From age 6, low Conscientiousness was increasingly salient in China, more so than in any other country. These differences between Chinese parents and parents in other countries might reflect the importance of education in China where education has always been extremely important for personal advancement (Chen & Uttal, 1988). Chinese philosophy, based on Confucian doctrine, has emphasized human malleability and the importance of effort to self-improvement (Chen & Stevenson, 1995). The differences in the Conscientiousness category might demonstrate the influence of cultural values on parental descriptions of personality. Chinese parents emphasized high achievement and reported satisfaction with their children's performance only when it was at a very high level. In contrast, U.S. parents reported satisfaction with their children's achievement at a lower level (Chen & Uttal, 1988). Further, modesty and humility are highly valued behaviors in Chinese culture; thus it might be culturally inappropriate to describe one's own child in very positive terms (Qiying Zhou, personal communication).

### Emotional Stability

*Emotional Stability High.* For Emotional Stability, unlike the four other main dimensions, more parental descriptors were coded on the low end of the dimension than on the high end, a characteristic true for all countries and all age groups. The low end captures terms reflecting emotional *in*stability or neuroticism. Descriptors referring to the high end of Emotional Stability were infrequently mentioned by parents when

describing their children's personalities (overall $M = 2.0\%$). No effect of age was found. These findings were consistent with the temperament and personality literature on Emotionality or Neuroticism where negatively valued labels emphasize the importance of the negative pole of this dimension (e.g., Rothbart, 1989). In analyzing data from four different personality questionnaires, Ostendorf and Angleitner (1992) found that the Neuroticism factor explained the most variance, and of the 30 items defining Neuroticism, only four were positively phrased words.

*Emotional Stability Low.* Parents in all countries used more descriptors referring to Emotional *In*stability, when samples from all countries were combined (overall $M = 6.3\%$). Again, no effects of age were found. Emotional Instability was regarded as salient for 3-year-olds as it was for 12-year-olds (see Fig. 7.10).

In three countries, a significant age trend appeared. In Belgium and the Netherlands, parents used more descriptors referring to the low end of Emotional Stability when describing older children (see Fig. 7.11a). In the United States, the trend was reversed: Parents used fewer descriptors when describing older children (see Fig. 7.11b). Although statistically significant age trends occurred in these three countries, there was only small age differences, explaining only between 2% and 5% of the variance.

Emotional Stability was divided in three facets: Emotional Reactivity, Self-Confidence, and Anxiety. Both Self-Confidence (overall $M = 1.1\%$) and Anxiety (overall $M = 0.9\%$) were of minor importance compared to Emotional Reactivity (overall $M = 4.6\%$). The age trend at the main category level for Belgium, the Netherlands, and the United States was

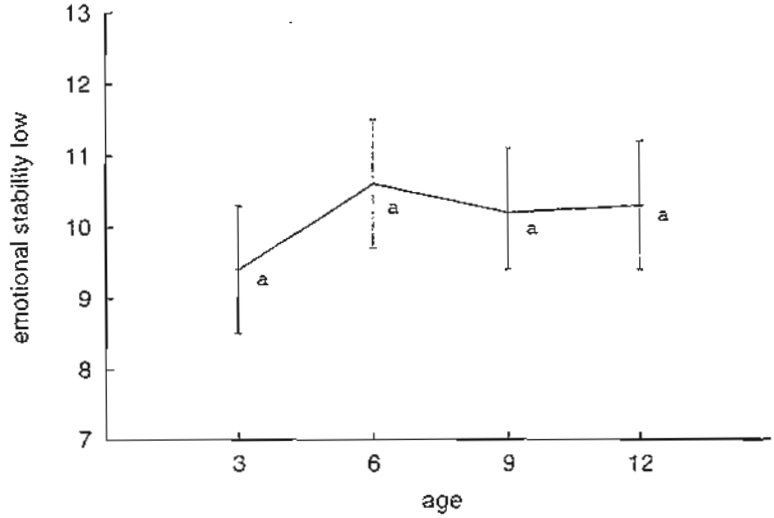


FIG. 7.10. Arcsine transformed means and 95% confidence intervals over countries for Category II, Emotional Stability low. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

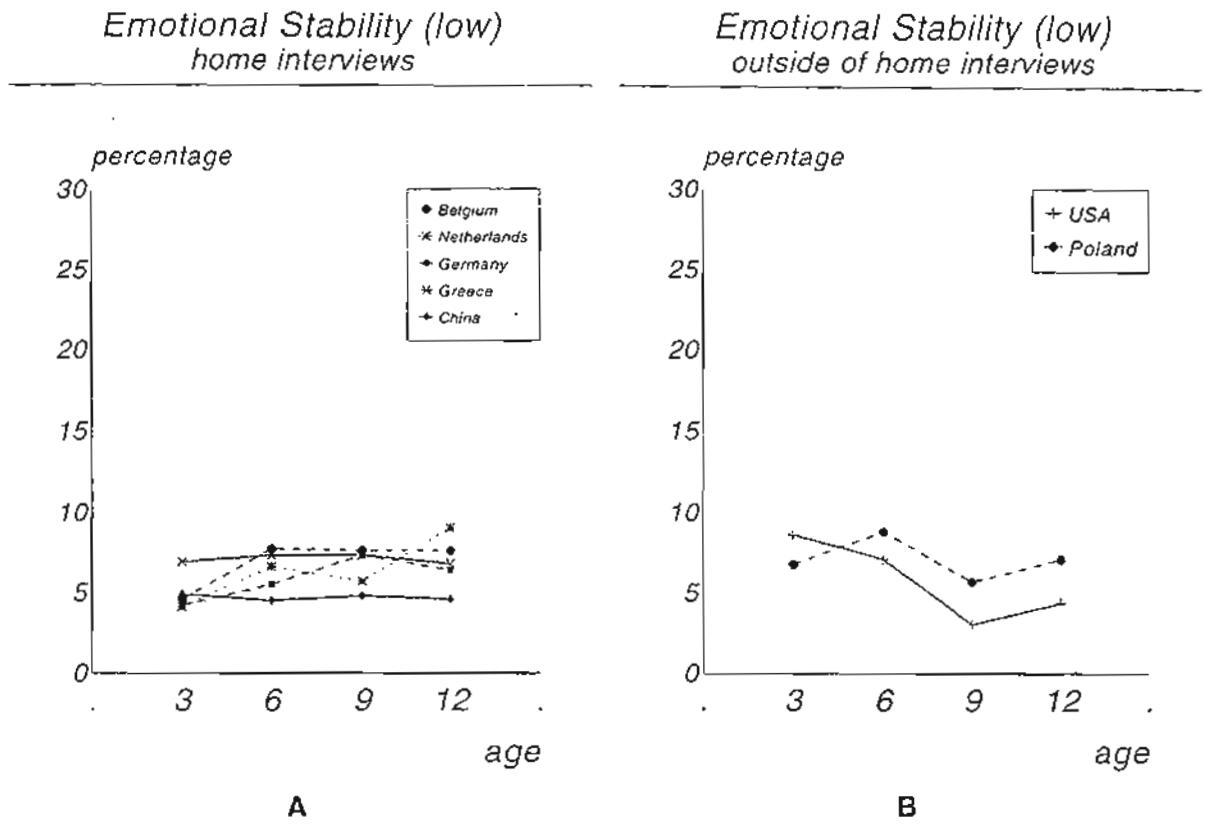


FIG. 7.11. Mean proportions of low Emotional Stability descriptors.

also found for the subcategory of Emotional Reactivity. Again, Belgium and the Netherlands had a small increase in use over age while the U.S. sample had a decrease.

## Openness to Experience

*Openness to Experience High.* Openness to Experience showed the largest discrepancy between proportions of high and low descriptors. On average only 1% of the descriptors was classified at the low end of Openness to Experience. Parents mainly talked about characteristics coded at the high end of Openness, such as intelligent, eager to learn, imaginative, has a good memory. A very small univariate effect of age was found for descriptors coded at the high end of Openness to Experience $F(3, 2237) = 5.5$, $p < .05$ ($\eta^2 = .07$). The use of descriptors referring to Openness to Experience decreased slightly over age and ranged from 13.4% for 3-year-olds to 10.9% for 12-year-olds. Figure 7.12 depicts this decline, with highly overlapping confidence intervals. Within-country ANOVAs revealed that this decline occurred only in the Chinese and Polish samples (see Table 7.6).

*Openness to Experience Low.* Descriptors referring to characteristics such as "Not eager to learn," "Slow learner," "Not intelligent" were rarely used, ranging from 0.3% in the U.S. sample to 1.8% in the German sample.

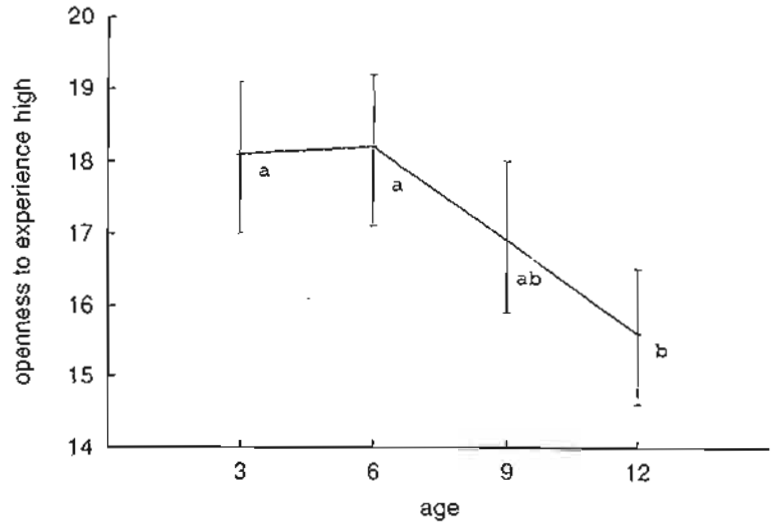


FIG. 7.12. Arcsine transformed means and 95% confidence intervals over countries for Category II, Openness to Experience high. (Note: Means of samples sharing a common letter are *not* significantly different from one another according to post hoc Scheffé tests.)

As discussed in chapter 6, concepts describing Openness to Experience as well as any other concept dealing with intellect have been explicitly excluded from the temperament literature. When parents were given the opportunity to talk freely about the characteristics of their children, however, a substantial part of the description consisted of descriptors referring to intellect and Openness to Experience. Parents found these aspects to be very salient even for very young children.

### Age-Related Trends in Eight Additional Categories

To capture a wide range of individual differences, eight additional categories were coded in addition to five main categories. Small proportion of descriptors, however, were coded in each of these additional categories. In most categories, descriptors were not mentioned frequently enough to

TABLE 7.6
Average Proportions of Descriptors in High Openness to Experience

| | *Age 3* | *Age 6* | *Age 9* | *Age 12* | *Total* | $\eta^2$ |
|---|---|---|---|---|---|---|
| Belgium | 11.0 | 12.3 | 11.9 | 11.5 | 11.7 | .0 |
| Netherlands | 10.8 | 13.7 | 12.4 | 10.1 | 11.6 | .02 |
| Germany | 15.6 | 16.1 | 17.1 | 14.8 | 15.9 | .01 |
| Greece | 12.6 | 11.3 | 9.1 | 8.1 | 10.3 | .02 |
| China | 15.2 | 13.0 | 12.2 | 11.0 | 12.3 | .02 |
| U.S.A. | 21.2 | 18.2 | 22.7 | 20.2 | 20.4 | .01 |
| Poland | 12.0 | 14.5 | 8.1 | 8.1 | 10.7 | .02 |
| Total | 13.4 | 13.7 | 12.1 | 10.9 | 12.5 | .02 |

justify a meaningful analysis (less than 3% of the descriptors in all age groups). No distinctions between the high and low ends of these categories were made. Further, only Independence (VI), School Performance (XI), and Relations With Siblings and Parents (XIII) accounted for as much as 3% of the descriptors. An age effect was found only for School Performance, $F(3, 2213) = 71.7$, $p < .001$ ($\eta^2 = .089$). Parents of 3-year-olds mentioned less school-related characteristics such as "Likes to go to school" and "Does well at school" than did parents of 12-year-olds (overall mean ranging from 1.0% for 3-year-olds to 4.0% for 12-year-olds). This age trend was not surprising; in most countries formal education begins around 4 to 5 years of age. This age trend was found in all seven countries.

## CONCLUSION

The free-description approach used in this study proved to be useful for describing age differences in personality across countries. The study of links between culture and personality is the oldest subfield of cross-cultural psychology (Triandis, 1997). Although there were some methodological differences in the collection of parent responses by the collaborating research teams, very similar age differences appeared in the frequency of various personality descriptors. In no way do we believe that our findings support an absolutist position that would assume that traits and psychological processes are universal and unaffected by culture, but we do believe that we have begun to identify some personality traits in children with some representation across cultures. Yet, even if the underlying structure of a trait is common across cultures, the meaning of that trait might be different in each culture.

> For example, the trait "self-reliance" has some common meaning across cultures. What is common in these meanings across cultures is etic. But self-reliance has somewhat different goals in collectivist cultures (e.g., traditional) than in individualistic cultures (e.g., the West). In collectivist cultures it often takes the form "I am self-reliant so I will not burden my group." In individualist cultures it takes the form "I am self-reliant so I can have fun and do my own thing." Clearly, the meaning is different across cultures; thus our task is to measure both the etic and the emic aspects of the construct. (Triandis, 1997, p. 443)

Hence, we continue to have two goals: first, to examine cross-cultural differences or similarities in the structure of personality in childhood; second, to interpret our findings with cultural sensitivity. The analyses of parents' natural-language descriptions of children at different ages in different countries have allowed us to begin this process.

Most meaningful age differences were found in examining the high and low ends of the facets of our dimensions. Analyses of descriptors

coded at the low ends of some categories revealed that descriptors referring to socially demanding and disobedient behaviors (like Agreeableness) were used less frequently as children's age increased. Other attributes like sloppiness, laziness, and lacking in ambition (Conscientiousness) tended to increase with age. We used proportional frequencies; as the use of one category increased or decreased, there was necessarily a concomitant change in the proportions of another category or categories. Generally, we found that parents of young children tended to focus more on Manageability (a facet of Agreeableness) including such behaviors as obedience, willingness to follow directions, and cooperation. Descriptions in this facet reflected how well children responded to external control, while parents of older children might be expecting more of their children in terms of internalized control. Hence, parents might describe young children as unmanageable and older children as lacking in conscientiousness. We also found that parents used descriptors referring to ambitious, achievement-oriented behavior (Conscientiousness) more frequently when describing school-age and older children. There was a decrease in the use of descriptors referring to high activity level (coded as an Extraversion facet) when describing older children.

These age-related changes occurred in most of the countries and are consonant with much of the current literature on developmental trends in child behavior and parental concerns. For example, Achenbach and Edelbrock (1981) used the Child Behavior Checklist (CBCL) to gather data on behavioral problems and competencies to assess the prevalence of behavior problems at different ages. Parents of children ranging from 4 to 16 years completed the CBCL. Achenbach and Edelbrock found that certain behaviors such as "Whining," "Asks for a lot of attention," "Disobedient at home," and "Hyperactive" decreased with age. These results were replicated in a Dutch sample of 2,076 children selected from the general population (Verhulst, 1985). Achenbach and Edelbrock's findings are consistent with our data in which parents of young children described them more frequently with terms referring to manageability and activity level than did parents of older children. Younger children are more active and less agreeable than are older children.

The largest age effect, however, was found for Conscientiousness. Our study showed that parents talked about characteristics referring to Conscientiousness or Task Persistence in children from age 3, but nothing like the parents of school-age children for whom the trait was of major importance. Conscientiousness was also the category with the largest age-by-country interaction. For children of age 3, Conscientiousness was of minor importance in all countries; Chinese parents, however, described their children from age 6 in terms such as "Sloppiness," "Easily distracted," and "Lacking in motivation" much more frequently than did parents in the other countries.

To summarize the age trends in the five main categories, characteristics reflecting the interpersonal domain, such as Extraversion and Agreeableness, apparently grew less salient with increasing age, while characteristics under more active cognitive control like those coded in Conscientiousness became more salient with increasing age. The Conscientiousness category also showed the largest cultural difference, which we interpreted to be associated with the influence of cultural values on parental perceptions. The fact that Chinese parents used Conscientiousness descriptors more frequently than did other parents was likely due to the importance of those traits and behaviors in the Chinese culture. Indeed, from a list of 35 value statements, triads consisting of Chinese participants endorsed "Persistence and perseverance" as the most important cultural value; in contrast, U.S. triads endorsed "To be well-adjusted, in harmony with my environment, in good relationship with others" as the most important (Triandis, Bontempo, Leung, & Hui, 1990).

Both ecological theory and lifespan developmental theory have emphasized the importance of contextual conceptualization in human development (Kagitcibasi, 1996). Our free-description method of data collection was sensitive to both age-related changes in personality and cultural differences. It is important to know about parents' beliefs regarding children and childhood because they have an impact on childrearing. Children's socialization is goal directed, and these goals are organized as culturally valued adult characteristics and competence in a society. We found that parents in our sample construed the basic structure of children's personalities in much the same way in every country. The salience of certain characteristics varied with the child's age as well as with cultural demands.

Much research in the field of temperament has focused on the biological underpinnings of behavior (Bates & Wachs, 1994). Instead of exploring the etiology of different temperamental dimensions, as personologists we are attempting to find links between childhood behaviors and adult personality. With the development of our new individual difference measures, we can begin to explore the structure of personality in childhood as well as across cultures. We can then begin the process of systematically examining the construct and the predictive validity of the dimensions we have discovered in the lexicon about children.

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