Parental Descriptions of Child Personality

Developmental Antecedents of the Big Five?

Edited by

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Preface

The research reported in this book should be thought of as part of the continuing search for the main dimensions of temperament and personality in childhood. Several competing theoretical traditions exist, and each has generated a variety of instruments to measure dimensions of specific interest to the particular theory. Although the variety of theories and instruments is not as overwhelming as in adult personality psychology, progress in developmental psychology has been hampered by the fact that individual differences in temperament and personality are conceptualized and assessed in so many different ways. More often than not, the outcomes of research in which temperament measures play a major role cannot be compared because measures used to operationalize individual differences are themselves incomparable. Progress in this field would be facilitated if consensus were reached on what the most important and "basic" dimensions of temperament are in infancy, in childhood, and in adolescence.

One possible way to achieve such a goal is to bring theorists together at conferences and to attempt to reach consensus by discussing the merits of each individual theory. Although such conferences (e.g., the 12 successive Occasional Temperament Conferences held in the United States) have been very stimulating and rewarding, the goal of achieving consensus remains remote. While struggling to obtain uniformity in theory and assessment of temperament in childhood, however, we came across research documenting the emerging consensus in adult personality psychology that the domain of adult personality could be comprehensively represented by five factors.[1]

The Five-Factor Model (FFM) consensus among researchers of adult personality is stimulated by theory based on the study of language—more precisely on the study of adjectives that are used for denoting individual differences in personality. These adjectives have been selected from dictionaries, but also, in recent years, from free descriptions of personality given by adults. The five main dimensions are usually labeled as (I) Extraversion, (II) Agreeableness, (III) Conscientiousness, (IV) Emotional Stability or Instability, and (V) Intellect, Culture, or Openness to Experience.

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[1] Historically, the terms *Big Five* and *Five-Factor Model* stem from different research traditions, the former being associated with the lexical approach (see Goldberg, 1993, for a short overview) and the latter with the NEO-PI personality inventory by McCrae and Costa. In this book, both terms are used interchangeably.

Until recently, only the studies by Digman and his associates (Digman, 1963, 1990; Digman & Inouye, 1986) explored the validity of the FFM for assessing individual differences in personality among children. Now, the number of studies exploring child personality is rapidly growing (e.g., Digman & Shmelyov, 1996; Halverson, Kohnstamm, & Martin, 1994).

When we began to explore the possibility of adapting this approach to the field of temperament and personality in childhood, we were hampered by the fact that there was no compilation of terms to describe temperament and personality in children. A dictionary-based approach, as was used in adult personality psychology, seemed cumbersome and inadequate for studying individual differences in childhood because many of the words were clearly developmentally inappropriate. One of us had already experimented for some years with free parental descriptions of temperament characteristics of children. These characteristics had been categorized in a temporary category system that was in continuous development. Encouraged by the fact that John (1990a, 1990b) and Church and Katigbak (1989) had used a similar approach with free descriptions to validate some aspects of the FFM (in particular, the model's claim of comprehensiveness, i.e., that it covered the major dimensions of personality), we decided to collect parental free or natural-language descriptions of children in several languages and cultures.

The first goal of this project was to create an alternative dictionary (in each language) of expressions used by parents to describe the characteristics of their children. These lexicons are now being used in the second phase of the project to provide representative words and phrases to construct items for a series of age-related questionnaires in the various countries. Factor analyzing data from parental ratings of these questionnaires should then result in age-appropriate *n*-factor models summarizing the common variance in these questionnaires. The resemblance between these *n*-factor models for individual differences in children of different ages and the FFM in adulthood can then be studied. These are the goals we are pursuing.

Why have we emphasized different languages and cultures? We believe that the descriptions parents spontaneously use to characterize their children depend partly on the saliency of certain traits in their children and partly on what parents expect to see, based on family history, as well as on the prevailing *belief systems* about what traits are important for children in their particular cultures (Harkness & Super, 1996; Sigel, 1985). Parents in different cultures might use different personality traits to describe their children, but the evidence as to whether they do so remains sketchy. Dictionary-based studies in psychological research of adult personality have now been done or are underway in many different countries and languages. Data from these studies seem to be pointing toward the cultural universality of the Big Five for *adult* individual differences psychology. Our work, however, is directed at the question of cultural universality of major dimensions of temperament and personality *in childhood*. From our developmental interest follows the next

question: How do the major dimensions of infancy and childhood gradually evolve into adult personality structure?

The intent of this volume is to lay a foundation to answer these questions. We present and discuss the results of the first phase of an ambitious project: the analysis of the contents of the free descriptions collected in seven different countries. In the first chapter we describe the research method and samples that provided the data. Chapters 2 through 6 then present results for the five major categories of the coding scheme. In chapter 7, cross-sectional age comparisons of samples from seven countries are analyzed. This chapter is followed by one discussing child gender effects. In chapter 9, results are summarized from a sample of African American parents living in Virginia. The last chapter deals with the validity of the data collected in this international project.

Throughout the book, the samples are named by country names (for example: "the Dutch sample"). This practice does not imply that the authors pretend that the samples are representative for the country populations. In the Appendix the demographic details of all samples are presented.

ACKNOWLEDGMENTS

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Analyzing Parental Free Descriptions of Child Personality

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Since Thomas and Chess popularized the concept of temperament in childhood (e.g., 1977), many studies devoted to temperamental differences among children have been published, and the nine-dimensional structure devised by Thomas, Chess, and their collaborators has attained textbook status. Applied initially to the study of infants, but later to older children as well, this approach categorizes temperamental differences based on clinical experience into nine more or less independent traits: Activity Level, Rhythmicity, Approach-Withdrawal, Adaptability, Threshold of Responsiveness, Intensity of Reaction, Quality of Mood, Distractibility, and Persistence. Beyond these first-order constructs, second-order constructs of three clusters—easy, difficult, and slow to warm up—have been proposed based on factor analyses of the nine scales.

Because of their clinical usefulness, the temperament scales developed by Thomas and Chess and later by Carey and others (e.g., Carey & McDevitt, 1978) became well-known instruments for assessing temperamental differences in infancy and childhood. We have begun with this brief history to emphasize that temperament measures currently in use, regardless of format, are top-down, theoretically derived instruments, with items reflecting the concerns of the child-care specialists. Even when some form of factor analysis has been used to summarize dimensions statistically—as opposed to clinically—the final result has still depended on item selection done in constructing the instruments.

In the case of the scales by Thomas and Chess and by Carey (e.g., McDevitt & Carey, 1978), other authors have shown that the original nine dimensions have not been recovered from factoring at the item level. Instead, from five to seven factors not closely resembling the original nine have emerged (see Martin, Wisenbaker, & Huttunen, 1994). We have emphasized here how the theoretical and clinical concerns of the Thomas and Chess group have shaped the temperament field. We have no quarrel with the usefulness of the nine-dimensional structure for many clinical assessments or research programs, but the dimensions might not be comprehensive, coherent statistically, or robust across ages and cultures. There are other ways to develop items, as we next propose, and there is a pressing need to assess the cross-cultural generality of constructs developed largely in one language or culture. Anthropologists and cross-cultural researchers have begun to demand justification for such cross-cultural applications of psychological instruments (e.g., Malpass & Poortinga, 1986; Shwalb, Shwalb, & Shoji, 1994).

Although it might seem that cultural homogeneity is on the increase at the same time that cultural uniqueness is on the decrease, a world where cultural differences have vanished in one big melting pot has not yet arrived. Thus, the appropriateness of translation and application of psychological instruments across cultures should be questioned more frequently than is presently done. Thus far, cross-cultural studies in the field of temperament have consisted mostly of comparisons of means and variances on scales originating in England (e.g., Eysenck Personality Questionnaire [EPQ], Eysenck & Eysenck, 1975) or the United States and translated into other languages. Although this work has produced many interesting results, we decided to follow a different approach.

FREE DESCRIPTIONS OF PERSONALITY

We were originally motivated by John (1990a), who called for more studies using free descriptions of personality to test for the possibility that the reliance on top-down, theorist-imposed descriptors was "too parochial":

> …given that the Big Five were intended to represent the major dimensions of natural-language personality descriptions, another option is to investigate the characteristics people use in free descriptions of themselves and others. Would the Big Five be replicated if the set of descriptors factored was based on the content of subjects' free descriptions, rather than on those sets of terms selected by the taxonomers themselves? (p. 92)

To explore this question, John and Chaplin (John, 1990a, 1990b) asked more than 300 U.S. college students to describe their own personalities and to generate terms for both their desirable *and* their undesirable characteristics. This first phase of collecting, categorizing, and counting descriptors was

then followed by a second phase in which the 60 most frequently used descriptors were put in a questionnaire and given to a new sample of subjects. Factor analyses of self-ratings yielded five factors that closely resembled the conceptual definitions of the Five-Factor Model (FFM), a finding supporting the hypothesis that these five factors are indeed the most salient dimensions of personality for U.S. college students.

The FFM free-description methodology has been used cross-culturally as well. For example, Church, Katigbak, and Castaneda (1988) conducted in-depth, open-ended interviews with 41 Filipino bilingual (English and Tagalog) college students. The students provided general descriptions of healthy and unhealthy Filipinos in several broad areas of functioning (e.g., attitudes and feelings toward others; actions with others; attitudes and feelings toward humans in general; attitudes, feelings, or thoughts about themselves; goals or values; and mood). Responses were recorded verbatim and transcribed.

The 1,516 nonredundant descriptors obtained were inductively reduced to 54 semantic categories. The authors could allocate almost all of these 54 categories to one of the five dimensions of the FFM. There were, however, additional dimensions not easily summarized by the FFM. For example, a dimension relating to nationalism and societal awareness emerged. Although these descriptors might fit in Category III (Conscientiousness) in the FFM, the authors suggested that their saliency in the personality descriptions was in response to the emphasis on social and political awareness in the Philippines during the time of the research.

In these studies, spontaneously mentioned personality characteristics were valued because it is assumed that people frequently mention those characteristics that they think are most important or basic. Further, it is assumed that aggregating these spontaneously mentioned descriptors over groups of individuals yields a set of perceptions specific to the culture of the informants.

Coding Free Descriptions

The collection and categorization of free descriptions of personality are the first steps in our research program. When many people have been interviewed, the large collection of personality descriptors obtained must be ordered. This is done by judges using a well-tested categorization system with good interjudge reliability.

When the system of categories has been applied, we can assess category frequency. Then, assuming that frequency of category use indicates the degree of saliency of each personality category in a particular culture, we choose exemplars from the high-frequency categories to prepare for the second phase. In this phase, the representative selection of descriptors is put into a questionnaire format that is then given to new samples of people from the particular culture involved. They may be asked to rate themselves or others on

the items selected. Finally, factor analyses of the items are used to summarize the underlying dimensions in the set of characteristics.

Free Descriptions of Child Personality

In the late 1980s, in his own search for the major dimensions in parental perceptions of temperament and personality in children, Kohnstamm and his students did some pilot work using parental free descriptions. These pilot studies served to develop and refine the methodology of eliciting and coding parental free descriptions. The studies demonstrated the sensitivity of the free-response format to detecting both social class and informant differences (e.g., mother versus father) in the Dutch language and culture, and they also revealed the potential of the FFM for categorizing parental descriptors. Until 1990, only one investigator had explored the structure of perceived personality in late childhood and adolescence from a FFM perspective (Digman, 1963, 1990; Digman & Inouye, 1986).

During a sabbatical year together at the Netherlands Institute for Advanced Study (NIAS) in 1990–1991, Kohnstamm and Halverson formulated the idea for the project described in this volume. An international group of researchers was formed with the goal of collecting free descriptions of children of different ages, in different languages and cultures. We assumed that our method of collecting free descriptions would tell us whether we would get the same or different personality dimensions over different languages and cultures. To quote from Church and Katigbak (1989): "By starting with a taxonomy of personality concepts generated independently in each culture, culture-relevant dimensions are allowed to emerge independently, providing a more convincing test of universality when comparable dimensions emerge" (p. 870).

Although the societies represented in the present study are all modern, the families involved live in differing social and economic circumstances, with large differences in household income and in future prospects for the children described. With the samples of differing cultures and circumstances, we can assess whether the parents in these societies generate temperament and personality descriptors with differing emphases, frequencies, and evaluations. When questionnaire items are distilled from the variety of terms, we can assess whether different dimensions emerge from parents' perceptions of their children's personalities in these different cultures.

METHOD

In all participating countries, personality descriptions were collected from parents of children between 2 and 13 years of age. In some samples, parents were simply asked to tell us about their children. In other samples, after an introduction in which the word "personality" was mentioned, the

parents were asked, "Can you tell me what you think is characteristic of your child?" All interviews were audiotaped and subsequently transcribed verbatim. The coders used elaborate coding manuals that included instructions about units of analysis, division of phrases, dealing with repetitions, and synonymy.

For our purposes, a unit of analysis was defined as an adjective, verb, noun, or phrase referring to a description of behavior, personality characteristic, or ability. Phrases referring to situational causes of behavior or to physical attributes were not coded. Because a unit of analysis could be a phrase, it was sometimes helpful to split phrases into simple, easily codable parts. Adjacent words or phrases could be divided and coded separately as two individual units if the meaning of each part was understood when considered independently. If a coder judged that meaning or context was lost by splitting the phrase, the unit was coded as one single description. For example, the phrase "She likes to play outdoors with neighbor kids" can be separated into two distinct parts: "She likes to play outdoors" and "Plays with neighbor kids." The first phrase would be coded as referring to physical activity level, and the second phrase would be coded as indicating extraversion or sociability. The phrase "She's so quick; her head works very, very fast" would be coded as a single unit because breaking the description into two parts could conceivably lead the coder to misinterpret "She's so quick" as referring to physical activity instead of cognitive proficiency.

In free-language interviews, respondents often elaborated on a single characteristic by mentioning concrete, situation-specific behaviors to illustrate the personality characteristic. In such cases, the elaborative phrase or phrases were taken with the descriptive word or phrase and were coded as one unit of analysis. Respondents might also mention a descriptive characteristic in the past tense and contrast this with a similar descriptive characteristic in the present tense to illustrate the way a child is now with respect to a younger age. In this case, the past-tense phrase was not coded separately, but was included in one unit with the presenttense phrase. The part of the phrase in the present tense was the subject of analysis; the past-tense word or phrase, however, might have helped the coder to assess the meaning or importance of the unit as a whole.

Words and phrases that were not coded as descriptive phrases included those referring to a person other than the target child or to children in general. These were considered nonrelevant phrases. Phrases about peripheral information were also excluded; these included information connected to the main issue, but so remote as to have no immediate relevance to the target child (e.g., "Her parents are friends of mine" or "You have a lot of temper tantrums and things with all kids, you know; that is not specific to Susie, but that is something that would bother me

about her"). If there was reasonable doubt as to whether a respondent was referring to the target child directly, then the word or phrase was not coded.

When words or phrases were repeated verbatim or if phrases expressing the same literal meaning were used more than once in a single interview, these units were recorded and coded as repetitions, but were not included in frequency analyses more than once.

The Categorization System

To categorize the expressions generated by the parents, a coding system was developed. Although the system of categories was inspired by the FFM framework, with several subcategories in each of the five dimensions, an additional eight categories were added. Each major category was designated by a Roman numeral. The first five were numbered according to conventions in the FFM literature. The subcategories or facets were inductively derived. Responses are coded as Positive, Neutral, or Negative as well. For example: "Enthusiastic" is coded as IA+; "Tends to shut herself off" is coded IA–. Table 1.1 shows the total system. No examples are given for responses coded as Neutral. Decisions were made on which utterances were to be used as units for coding and which utterances could be discarded. Detailed instructions were developed for this step in applying the categorization scheme.

Rationale for Categories Included

The origin of the first five main categories has already been explained. The subcategories within these five are our own inventions, based on clusters of high-loading items, or "facets," as published in several FFM studies. For the location of some of the subcategories (e.g., Manageable for Parents and Teachers—Category II), we had no empirical basis: No adjectives for Manageability were included in FFM adjective studies as they did not deal with children. In the instrumentation phase of this project, items dealing with Manageability might not cluster with a higher order factor recognizable as the FFM's Agreeableness. We emphasize here that we do not necessarily expect to find a neat FFM structure once new samples of

TABLE 1.1 Categories for Coding Descriptors From "Free" Personality Descriptions and Examples of Descriptors

	I.—Extraversion
1A: Sociability—outgoing versus shy	
1A+	1A–
Enthusiastic	Tendency to shut self off
Totally thrilled to be alive	Inhibited and withdrawn
Likes to be with others	Shy, prefers to play alone
1B: Dominance, Leadership, Assertiveness	
1B+	1B–
A leader	Passive
Strong character	Follows everyone
Assertive	Does not stand up for self
1C: Activity, Pace, Tempo, Energy, Restlessness, Vitality	
1C+	1C–
Active	Quiet
Energetic	Not physically active
Always on the move	Does not do much

	II.—Agreeableness
2A: Helpfulness, Cooperation, Amiability	
2A+	2A–
Loving, sweet	Selfish
Good natured	Impatient
Caring	Not a good helper
	Initiates aggression
2B: Manageable for Parents and Teachers	
2B+	2B–
Well behaved	Argumentative
Never belligerent	Stubborn
Cooperative	Rebellious
2C: Honest, Sincere	
2C+	2C–
Sincere	Lies
Honest	Can be deceiving
Trustworthy	Insincere

	III.—Conscientiousness
3A: Carefulness	
3A+	3A–
Long attention span	Forgetful
Good concentration	Daydreams, easily distracted
Responsible	Careless, indifferent
Neat, tidy	Sloppy, chaotic

(Continued)

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TABLE 1.1 *(Continued)*

3B: Faithfulness, Loyalty

3B+	3B–
Very loyal to friends	No enduring friendships
Stands up for friends	
Reliable	

3C: Diligence, Industriousness, Persevering

3C+	3C–
Determined	Needs motivation
Hard working	Lazy
Competitive	Unwilling to work
Wants to do things well, perfectionist	

IV.—Emotional Stability

4A: Emotional Reactivity and Stability

4A+	4A–
Under control	Cries a lot
Very resilient	Sensitive to words from others
Rarely loses temper	Needs to control temper

4B: Self-Confidence

4B+	4B–
Confident	Lacks self-confidence
Self-assured	Insecure
Certain	Tentative in assessing own abilities

4C: Anxious, Fearful

4C+	4C–
Does not exhibit a lot of fears or nervousness of dogs, etc.	Afraid of the dark, fearful

V.—Openness to Experience, Intelligence

5A: Openness to Experience, Adventure Seeking

5A+	5A–
Curious	Afraid of failure
Inquisitive	Not too open (to new things or ideas)
Easily interested in new things	Hesitant to do things

5B: Interested in Things, Good at . . .

5B+	5B–
Interested in computers	Dislikes reading
Likes music, plays piano very well	Not interested in . . .

5C: Intelligence, Language Proficiency, Reasoning Capacities

5C+	5C–
Bright	Difficulty in understanding
Quick to learn	Slow to learn

(Continued)

TABLE 1.1 *(Continued)*

VI.—*Independence, Ability to Do Things Independently*

6+	6–
Independent	Does not do things on his or her own
Often involved in activities	
Likes to do things on his or her own	Too dependent on mom

VII.—*Mature for Age*

7+	7–
Mature	Babyish behavior
Precocious	Emotionally immature
Intelligent for his or her age	Young for his or her peer group

VIII.—*Illness, Handicaps, and Health*

8+	8–
Healthy	Sickly
	Severe allergy problems, attention-deficit disorder

IX.—*Rhythmicity of Eating, Sleeping, etc.*

9+	9–
Likes things to run on regular schedule	No examples

X.—*Gender Appropriate, Physical Attractiveness*

10+	10–
He is all boy; she is all girl	He only likes to play with girls
Attractive, handsome	She only likes to play with boys

XI.—*School Performance, Attitudes Toward School*

11+	11–
Eager about school	Talks when not supposed to in school
Excellent student, self-motivated at school	Not challenged at school

XII.—*Contact Comfort, Desire to Be Cuddled, Clinging*

12+	12–
Cuddly, huggable	Does not like to be touched

XIII.—*Relationships With Siblings and Parents*

13A: Sibling Relationships

13A+	13A–
Helps with siblings	Ignores sister
Watches out for brother, problems with siblings	Will not play with brother

13B: Interaction With Parents and Family

13B+	13B–
Likes to do things with family	Not too eager to do things with family
Oriented to the family	
Good father–daughter relationship	

XIV.—Ambiguous Phrases and Descriptions That Cannot Be Coded in Other Categories

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Strong spiritual character
Persnickety
Too materialistic
Big

As for the rationale for the coding in our pilot studies for the categories additional to the FFM (i.e., Categories VI through XIV), we coded the Independence (VI) category separately from the Big Five for two reasons. First, when parents described their children as being independent (or as being too dependent), they might mean something different from being simply high or low on Extraversion, Conscientiousness, Emotional Stability or Instability, or Openness to Experience. Second, in the FFM literature about adults, a factor labeled as Autonomy or Independence has been repeatedly seen as having independent status. So, on rational grounds, John (1990a, 1990b) made a separate category for Independence when categorizing personality descriptors generated by his students. Also, Costa and McCrae (1988), on empirical grounds, saw sufficient indications for a separate factor of Autonomy in the Personality Research Form (PRF). Whether being independent and autonomous *in childhood* will attain independent factorial status remains to be determined in the following phases of our project.

Mature for Age (VII) is a category specific to children. Very few adjectives of this kind have ever been included in FFM adjective studies using self- or other ratings of adults, and it is therefore impossible to tell if and where Mature for Age would fit in the factor analytically derived model. The category is included for coding comprehensiveness and possible links to other categories.

It is questionable whether a person's being often or never ill or having a disability is a personality characteristic in the strict sense. We have included Illness, Handicaps, and Health (VIII) in our system because parents of children who are ill or disabled often mentioned this fact first when beginning the interview. These parents considered their children's condition as fundamental background information for understanding the youngsters' other characteristics.

Rhythmicity (IX) is included as a coding category because it is one of the nine dimensions of the Thomas-Chess model. In the Thomas-Chess-derived DOTS-R questionnaire (Revised Dimensions of Temperament Survey; Windle & Lerner, 1986), Rhythmicity is even operationalized in three separate scales (for eating, sleeping, and daily habits). Angleitner and Ostendorf (1994) demonstrated that when students rate themselves on many different personality questionnaires, including the DOTS-R, Rhythmicity obtains independent status as a sixth factor outside the FFM domain. We found, however, that only a very small proportion of the

descriptors had to do with Rhythmicity. Parents from other cultures might possibly generate more descriptors indicating aspects of Rhythmicity than we have found so far.

Gender-Appropriate Behavior and Physical Attractiveness (X) are concepts not usually included in the measurement of temperament and personality, although they are important personal characteristics that could cluster with other major personality traits in childhood. Usually parents, at least in Western cultures, do not mention physical attractiveness (or lack thereof) in a conversation with a stranger. Nevertheless, we coded descriptors for physical attractiveness because of its importance for both children and adults. For example, Lanning (1994) found an independent attractiveness factor, the first one after the Big Five, when factoring a sample of 940 California Adult Q-Set (CAQ) ratings of students in California.

We also included a category for descriptors indicating how well children are doing in school, for example, whether their marks are good, average, or bad (XI). Typically, in the history of personality testing such qualities are measured by instruments other than personality questionnaires. By keeping school performance and attitudes apart in our category system, we have, however, somewhat reduced the number of "descriptors" coded in Category III, Conscientiousness, notably those describing a child as being industrious or lazy at school.

The concept of Cuddliness and Clinging Behavior (XII) was included because of the history of the concept in literature on temperament (e.g., Bates, Freeland, & Lounsbury, 1979). Thus far, few descriptors have been given in this area. The low frequency might not warrant the inclusion of cuddliness and clinging behavior in the second phase of this project.

A separate category (XIII) was included to code descriptions of relationships between the target child and his or her siblings, parents, or both. As for the category School Performance, by creating a separate category we might have reduced the number of descriptors that otherwise would have been coded as I, II, or IV. The last category, XIV, consisted of Ambiguous Phrases That Cannot Be Coded in Our System. All phrases were retained, however, to allow for the emergence of a category if parents mentioned unanticipated traits.

Why Differentiate Between Positive and Negative Descriptors?

As indicated previously, the characteristics mentioned by parents were also coded as High, Low, or Neutral on the dimensions presumably underlying the categories (see+and—signs in Table 1.1). High or Low can at times be thought of as Positive or Negative as on many dimensions the positive pole can be thought of as the more desirable. Care must be exercised here: Many of these high and low distinctions might be somewhat arbitrary and not isomorphic

with evaluation. At times, High might mean more of a (hypothetical) dimension and Low less of one. For example, children described as active (IC+) could be considered by their parents and teachers as being too active (amount), or their activity could be a positively valued trait. Thus the coding generally means positively valued or negatively valued, with some caveats and ambiguities remaining for some phrases.

For all categories separately and for the total of all characteristics together, the percentages of Negative and Positive characteristics were computed. Some teams also distinguished a Neutral category for cases in which it could not be decided from the context of the interview whether the descriptor was high or low on the hypothetical dimension.

Categories differed widely in the proportions of Negative codes. Category IV (Emotional Stability or Instability) received the most. About 75% of all characteristics mentioned by parents and coded in this category referred to emotional instability and neurotic behavior. At the other extreme, descriptors in Category V (Openness to Experience) were coded as negative only about 5% of the time. In later chapters we also document some considerable category differences in the negative-positive ratio by country.

Differences in the Conceptual Span or Width of the Categories

In this book, we report large differences in proportions over categories. Although we could say that these differences reflect dissimilarities in how broadly we defined the various categories, we favor another more interesting explanation: that the differences among categories reflect the salience of these dimensions for parents when they talked about their children. Because what was coded were sentences (or parts of sentences), we can rule out the explanation of frequency of personality words in the lexicon as the major reason for differential use of the categories. Frequency of use mostly reflects saliency, which is in part due to the behavioral frequencies of these dimensions in the children as well as the cultural values emphasizing some categories over others.

Important differences in contents of descriptions also surely have to do with the ages of the children described. For instance, in Conscientiousness, the proportions of descriptors suddenly increased when the children went to school. This sort of difference is certainly not dependent on either width of categories or availability of words in the lexicon, but rather on the developmental saliency and relevance of the behavioral characteristics (for parents) for children at different ages. Chapter 7 is devoted to analyzing the age trends found in the seven countries.

Training of Coders and Coding Reliability

Intensive communication among the coding teams has helped to find solutions to most of the discrepancies and uncertainties encountered in coding the verbal

protocols. After training, coders' agreement over the 14 main categories was between 80% and 90%. When the agreement over the 15 subcategories in the first five (Big Five) main categories was also analyzed, reliabilities ranged between 70% and 80%. In the Appendix, more detailed information is given about the interjudge reliability of the coding procedure.

Samples Involved

Throughout this book, the samples are designated with the names of the countries in which they were collected. This does not mean that we assumed that our samples were in any way representative of the populations of these countries. In the Appendix, a demographic description of each sample is given.

In five of the seven countries, parents were interviewed in their homes, sometimes separately, sometimes with others present. In Poland, parents were interviewed in a room of the school attended by their children. In the United States, parents were interviewed separately in a number of settings, including day-care centers, schoolrooms, rooms where parents had come to register their children for various activities, and several other settings outside the home. Because the samples can be grouped by whether the interviews were done inside or outside the home, some results obtained with the five inside-the-home samples are grouped together from west to east, beginning in Europe: Belgium, Netherlands, Germany, Greece, and China. The two outside-the-home samples were grouped together when reporting some analyses. In the Appendix, the samples sizes are described in each country, separately for the four age groups, and divided by gender. The number of child descriptions varied from 193 (Netherlands) to 427 (Belgium). About equal numbers of boys and girls were described. In Belgium and the United States, somewhat more girls were described, and in China somewhat more boys. Overall, many more mothers than fathers were accessible to describe their children. Because in some samples both mothers and fathers were asked to describe the same child and because one parent might have been asked to describe more than one child, the totals for parents interviewed and children described as presented in the Appendix do not always correspond.

SOME GENERAL RESULTS

Number of Descriptors per Interview and Breadth of Coverage

The interviews varied considerably in length as operationalized by the number of descriptors that could be coded from the interview protocols. In Table 1.2, the means and variances for the seven samples are presented. These samples form three groups, according to the average number of descriptors coded: Germany; Belgium, Greece, and the Netherlands; and Poland, China, and the