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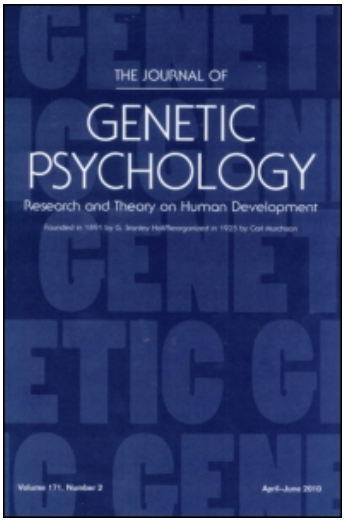

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Chinese and Dutch Parents' Perceptions of Their Children's Personality

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Chinese and Dutch Parents' Perceptions of Their Children's Personality

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ABSTRACT. The authors coded Chinese (n = 401) and Dutch (n = 324) parents' free descriptions of their 3- to 14-year-old children's personalities using a 14-category coding system partially based on the Big Five. Of the Chinese and Dutch personality descriptors, 86% and 77%, respectively, could be classified in the first 5 main categories resembling the five-factor model of adult personality. No significant differences were found for gender, socio-economic status, or city in these categories. Chinese parents of school age children generated many more descriptors, mostly critical, in the domain of conscientiousness. The findings reflect Chinese high achievement orientation and show that the classification system, which presently serves as a basis for developing indigenous questionnaires for personality assessment of children in China and some Western countries, is sensitive to cultural differences.

Key words: children's personality, five-factor model, free descriptions, parents' perceptions

AMONG SPECIALISTS of adult personality, there is a growing consensus that individual differences, as measured by rating scales or questionnaires, can be adequately accounted for by five factors (the five-factor model or the Big Five). Most of the supporting data, however, come from research in Western countries. Few such studies have been conducted in major non-Western countries, such as China. To measure personality from a distinctly Chinese perspective, Yang and Bond (1985) reported factors derived from Chinese trait-descriptive adjectives. The researchers sampled 150 unipolar adjectives from Yang and Lee's (1971) pool of 557 personality-descriptive predicates commonly used in the Chinese language. In a second study, with samples of Chinese students from different nationalities,

Yang and Bond (1990) found five factors, the *Chinese Big Five*: Social Orientation Versus Self-Centeredness, Competence Versus Impotence, Expressiveness Versus Conservatism, Self-Control Versus Impulsiveness, and Optimism Versus Neuroticism. The researchers computed scores for both Norman's (1967) American factors and these Chinese Big Five. All five Chinese factors were substantially correlated with the corresponding Norman factors, but a clear one-to-one correspondence was not found. A coauthor of the present article, Cheung, and his colleagues (Cheung, Conger, Hau, Lew, & Lau, 1992) developed the Multi-Trait Personality Inventory and investigated the personality of mainland and overseas Chinese with an emic approach. They discovered that Chinese in mainland China, Taiwan, Hong Kong, and the United States possess some common traits that are deeply rooted in the Chinese culture characterized by Confucian thought (e.g., self-discipline and moderation) and some additional traits nurtured by their respective environments.

On the basis of an overview of Chinese factor analytic studies performed with translated, and thus imported, personality questionnaires and indigenous scales, McCrae, Costa, and Yik (1996) concluded that the same five personality factors are present in both Chinese and American cultures, although some aspects of personality (notably conscientiousness) might be emphasized more in the Chinese culture. McCrae et al. referred to a study by Ip and Bond (1995) in which preliminary data indicated that Chinese parents emphasize certain facets of conscientiousness.

In the literature on child temperament and personality, no clear picture has yet emerged for the basic dimensions of temperament and personality in childhood (Kohnstamm, Bates, & Rothbart, 1989; Halverson, Kohnstamm, & Martin, 1994). Psychologists' and psychiatrists' diverse theoretical and clinical interests in this area have resulted in the development of a variety of scales that presume to measure the main dimensions of temperament and personality in childhood.

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In 1992, a collaborative research network involving six Western countries and China was established. For each of the participating countries, researchers developed questionnaires based on collections of descriptors derived from interviews. In the present study, we report partial results of this international project and compare Chinese and Dutch parents' descriptions of their children's personality characteristics.

Our primary purpose in this study was to determine whether personality descriptors given by Chinese parents could be coded in a 14-category coding system developed for use in Western countries. The details of this coding system have been published elsewhere (Kohnstamm, Mervielde, Besevegis, & Halverson, 1995; Kohnstamm, Halverson, Havill, & Mervielde, 1996) and can be obtained from the second author. The 14-category coding system covers the 5 dimensions of the five-factor model, 8 additional categories specifically relevant to the description of children, and a final category reserved for descriptors that do not fit in any of the other categories (the labels of these categories are provided in the Results section). The first 5 categories were modeled for children on the basis of the conceptual content of the Big Five for adults. Within each of these 5 main categories, 3 facets or subcategories are discerned (again, see the Results section for the labels of these subcategories).

Our secondary purpose in this study was to compare the proportions of descriptors obtained from Chinese and Dutch parent groups. For more detailed information about the Chinese and Dutch participants (who are described in the next section), see Zhang (1997) and Elphick and Slotboom (1997), respectively.

Method

Participants

China. Participants resided in two Chinese cities (Beijing and Fuzhou) and included 401 parents (215 mothers and 186 fathers) who provided descriptions of a total of 231 Chinese children, of which 55.6% were boys and 44.4% were girls. Because most of these children were described by both parents, there were more descriptions (401) than children (231). The descriptions were classified according to child age group: 3 to 5, 6 to 8, 9 to 11, and 12 to 14 years. The vast majority of the descriptions were of only children (93%). We estimated the socioeconomic status (SES) of the families on the basis of occupation and education. The low, medium, and high SES of the sample was 12%, 45%, and 43%, respectively.

The Netherlands. From several cities in the Western provinces, 324 parents (190 mothers and 134 fathers) provided descriptions of a total of 193 Dutch children, of which 52% were boys and 48% were girls. As in the Chinese sample, the descriptions were classified according to age: 3 to 5, 6 to 8, 9 to 11, and 12 to 14

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years. Nearly half (47%) of this sample consisted of first-born children; only a small minority had no siblings. The SES of the families was estimated on the basis of only educational level. The low, medium, and high SES of the sample was 18%, 36%, and 46%, respectively.

Procedure

China. Twelve 2nd-year students from the education department of Fujian Normal University and six 3rd-year students and four graduate students from the education department of Beijing Normal University performed the interviews. First, the interviewers obtained the addresses of the children and the names of their parents from the kindergartens and primary schools near their campuses. Then they contacted these parents by telephone and asked permission to interview them. Almost all of the parents contacted agreed to be interviewed. The students were trained briefly (by the first author of this article) before conducting interviews in the parents' homes. The interviews began with a standard introduction as follows:

> I am a student at Beijing (Fujian) Normal University. We are doing a study about normal children's personality characteristics. We would like you to tell us something about what you see as typical characteristics for your child. The interview will last for about 15 minutes, and I would like to record the interview process on audiotape. After I transcribe what you said, I will erase the tape. I want to interview both parents separately. Do you agree? . . . Can you tell me what you think about the typical characteristics of your child?

The Netherlands. The parents of 3- to 11-year-old children were approached through day-care centers and elementary schools. An introductory letter was sent to the parents informing them of the research goal of the project and requesting that they participate by returning a form to Leiden University. Only 10% of the distributed forms were returned. For parents who returned forms, appointments were made by telephone to arrange for home interviews. The parents of 12- to 14-year-old children who had previously participated in a longitudinal temperament study were chosen and then approached by telephone. They were also sent introductory letters. In contrast to the parents of the 3- to 11-year-olds, nearly all (90%) of the parents of the 12- to 14-year-olds who were approached agreed to participate in the study. The interviews lasted an average of 20 min. At the beginning of the interview, the parents were again informed of the goal of the study. Subsequently, they were asked, "Can you tell me what (name of the child) is typical for?" When parents had difficulty describing their child, they were prompted with, "You can tell me anything you think that is important to describe." Mothers and fathers were interviewed separately, and their interviews were audiotaped. After transcription, the interview protocols were segmented into units, each consisting of only one parent's descriptive characteristics.

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Coding Procedure and Reliability

Segmentation. Coding of a verbatim text demands a preliminary process of segmentation or parsing of the text into codable units relevant to the purpose of the researcher. In our case, we defined a suitable unit of expression as any adjective, verb, or noun that (in combination with the fewest possible supporting words) was indicative of a child's temperament and personality, including the child's habitual abilities, interests, and attitudes. Phrases referring to causes of behavior were excluded. (We will provide details of the rules for segmentation upon request.)

Coding. The subsequent coding process was less difficult than the segmentation process. Intensive communication among the different coding teams, particularly the teams from Leiden University, the University of Ghent (Belgium), and the University of Georgia (U.S.), facilitated the formulation of guidelines for dealing with most of the uncertainties encountered in the parsing and coding process.

Intercoder agreement. The percentage of agreement between two coders depends on whether the agreement is calculated before or after consensus has been reached on segmentation of the protocols. Before reaching a consensus, one coder may identify an expression and ascribe it to a category, but another coder may parse and code differently. The percentage of agreement between two independent coders, computed before the coders reached consensus in segmentation, was in the 60% to 70% range for the different countries. The percentage of agreement improved considerably once consensus was reached, and it averaged 80% or above for the categories in these two countries.

Intercoder agreement also depends on the number of categories involved in calculating a percentage agreement score. The highest value was obtained when agreement was calculated for the 14 main categories. Agreement decreased somewhat (between 1% to 5%) as the subcategories were included in the calculation. Adding further distinctions, such as whether a descriptor was *positive* (high) or *negative* (low) for the dimension assumed to underlie a particular category led to a possible total of 70 coding categories for each separate unit of expression. In computing intercoder agreement for these 70 coding categories, the percentages of agreement were lower but still remained as high as 80% in most samples.

Intercoder agreement: China. After the parents' descriptions were transcribed from the audiotapes, we used a Chinese coding manual to code the original protocols. The development process of the Chinese manual occurred in two stages. First, an English version of the coding manual (Havill, Halverson, & Allen, 1992) was translated into Chinese (by the first author, Zhang). Some phrases and words that did not fit in the actual situation and language context of China were replaced with more typical Chinese phrases. Second, a Chinese psychologist who worked at the University of Georgia (U.S.) back translated the Chinese version into English.

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After the Chinese psychologist at the University of Georgia and Zhang reached an agreement for all phrases, the final Chinese coding manual was printed.

When evaluating the reliability of the coding procedures, one may obtain independent coding of the same material by using either the test-retest method, by the same person, or the independent-coder method, by two different people (Gorden, 1992). We adopted the latter method. Two different Chinese coding teams independently coded the original interview protocols. First, two Chinese researchers in Beijing coded all protocols of the original interviews. Then, copies were made of 377 protocols and were sent to the second coder in the United States.

We assessed the reliability of a total of 833 units of expression for 50 interviews that were randomly selected from the 401 interviews. In 68% (568) of these units, both the Chinese and Chinese American coders had agreed on the exact identification and parsing of the expressions that were appropriate to code into the coding scheme. In 568 units, we computed the intercoder reliability over only the 14 main categories in the calculations, and agreement was 98.9%. When all subcategories were included with the 14 main categories, the agreement decreased to 95.6%. The agreement was 87.2% when we included all main categories, subcategories, and positive or negative directions.

Intercoder agreement: The Netherlands. Two coders (A. Slotboom and E. Elphick) independently coded 30 interviews: 10 at the beginning, 10 midway through the coding process, and 10 at the end of the coding process. Before consensus was established on identification and segmentation, agreement between the two coders was only 62%. After consensus was reached on exactly which expressions to code, we calculated the percentage of agreement for each set of 10 interviews. When we limited calculations to only the 14 main categories, agreement was 92% for the first 10 interviews, 87% for the 10 midway through, and 88% for the last 10. When we computed agreement over the subcategories, these percentages remained as high as 87%, 84%, and 88%, respectively. When we included the categories of positive, neutral, and negative, these percentages decreased to 83%, 77%, and 83%, respectively.

Results

We present the results obtained with the Chinese sample in more detail than those obtained with the Dutch sample. The details of the Dutch sample are available from Elphick and Slotboom (1997), whereas those of the Chinese sample are available from the first author (Zhang, 1997).

Average Number of Codable Descriptors per Interview

On average, Chinese parents produced fewer descriptors than Dutch parents did. For the four age groups, 3 to 5, 6 to 8, 9 to 11, and 12 to 14 years, the Chi-

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nese means were 12.4, 12.1, 12.2, and 9.0, respectively. For the Dutch sample, the comparable means were 20.9, 20.1, 19.4, and 22.1.

Proportions of Descriptors in the Main Categories

The results are presented for both samples, by age group, for the 14 main categories in Table 1 and Table 2. We computed the proportions over all descriptors generated by parents of a particular age group (see the first four columns) and over the total of all descriptors generated by all parents combined (see the last column).

For each interview, we counted the number of descriptors, excluding literal repetitions. Some parents produced no more than 5 codable descriptors (excluding literal repetitions), and other parents generated more than 30 codable descriptors (excluding repetitions). For descriptive purposes, the proportions were presented as fractions of the total number of descriptors produced by groups of parents. When making statements of statistical inference, assuming that from these samples population parameters could be estimated, we calculated average proportions over participants (parents) for a particular age group. The proportions

TABLE 1
Proportions of Descriptors in the Chinese Sample, by Age Group

Category	Age (years) 3–5 (n = 40)	6–7 (n = 117)	9–11 (n = 112)	12–14 (n = 132)	All (N = 401)
I. Extraversion	30.9	27.5	25.8	25.7	26.9
II. Agreeableness	21.4	18.8	17.3	16.8	18.1
III. Conscientiousness	6.9	18.3	22.2	21.8	19.1
IV. Emotional stability	8.9	7.3	7.8	7.4	7.7
V. Intellect, openness	16.3	13.9	13.0	13.4	13.8
VI. Independence	2.8	6.7	5.3	5.5	5.5
VII. Mature for age	1.8	0.9	1.1	2.0	1.4
VIII. Illness, health	1.8	1.1	1.3	1.1	1.3
IX. Rhythmicity	1.6	0.4	0.5	0.4	0.6
X. Gender appropriate	0.4	0.4	0.4	0.0	0.4
XI. School performance	0.2	2.3	2.2	2.2	2.0
XII. Desire to be cuddled	0.0	0.0	0.0	0.0	0.0
XIII. Sibling relations	0.6	0.3	0.1	0.3	0.3
XIV. Ambiguous	6.5	2.2	2.9	3.1	3.1
Number of descriptors (disregarding repetitions)	496	1,410	1,367	1,185	4,458
Average number of descriptors per interview	12.4	12.1	12.2	9.0	11.1

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TABLE 2
Proportions of Descriptors in the Dutch Sample, by Age Group

Category	Age (years) 3–5 (n = 77)	6–8 (n = 101)	9–11 (n = 80)	12–14 (n = 66)	All (N = 324)
I. Extraversion	29.0	30.4	26.7	25.7	28.2
II. Agreeableness	21.5	17.3	19.2	18.9	19.1
III. Conscientiousness	3.4	6.3	9.3	8.5	6.8
IV. Emotional stability	8.7	9.3	10.6	13.9	10.6
V. Intellect, openness	12.1	12.9	12.5	12.7	12.6
VI. Independence	3.7	3.4	4.0	3.6	3.7
VII. Mature for age	4.9	2.6	1.7	3.4	3.1
VIII. Illness, health	0.8	1.0	0.6	0.8	0.8
IX. Rhythmicity	1.9	0.9	0.6	0.4	1.0
X. Gender appropriate	1.5	1.5	1.5	0.9	1.4
XI. School performance	0.9	3.7	4.1	3.5	3.1
XII. Desire to be cuddled	1.5	1.4	1.0	0.5	1.1
XIII. Sibling relations	3.7	4.3	3.7	2.4	3.6
XIV. Ambiguous	6.3	5.2	4.3	4.6	5.1
Number of descriptors (disregarding repetitions)	1,607	2,032	1,553	1,457	6,649
Average number of descriptors per interview	20.9	20.1	19.4	22.1	20.5

obtained with the second method were used for testing significance differences between both samples.

Over the four age groups combined, the Chinese coders ascribed 86% of the descriptors to the first 5 main categories, as opposed to 77% ascribed by the Dutch coders. In comparing the proportions (see Tables 1 and 2), we found that the only striking difference was Category III, conscientiousness, for which the Chinese proportions were more than twice as large as the Dutch proportions, notably for the age groups 6 to 8, 9 to 11, and 12 to 14 years.

Proportions of Descriptors for the Subcategories: Chinese Data by Age Group

The Chinese proportions for the subcategories of the first 5 main categories of the coding system are shown in Table 3. In 4 of the 5 main categories, the proportions for the 3- to 5-year-olds differed substantially from those for the older children. Only in Category IV, emotional stability, were there no differences between the 3- to 5-year-olds and the older age groups. The 3- to 5-year-olds were described less in terms related to Category III, conscientiousness, notably in the subcategories of carefulness and diligence. They were described more in terms

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TABLE 3
Proportions of Descriptors in Subcategories in the Chinese Sample

Category	Age (years) 3–5 (n = 40)	6–8 (n = 117)	9–11 (n = 112)	12–14 (n = 132)
I. Extraversion	30.9	27.5	25.8	25.7
Sociability	18.8	15.3	12.4	12.4
Dominance	3.4	1.5	2.2	2.5
Activity	8.7	10.6	11.2	10.7
Positive (high)	23.0	20.4	16.5	17.1
Negative (low)	7.9	7.1	9.3	8.5
II. Agreeableness	21.4	18.8	17.3	16.8
Helpfulness	6.7	8.3	8.6	7.7
Manageability	14.1	9.2	7.3	7.0
Honest, sincere	0.6	1.4	1.5	2.1
Positive (high)	9.3	9.9	11.9	11.6
Negative (low)	12.1	8.9	5.4	5.2
III. Conscientiousness	6.9	18.3	22.2	21.8
Carefulness	2.4	6.7	8.7	7.8
Faithfulness	0.0	0.1	0.4	0.2
Diligence	4.4	11.4	13.1	13.8
Positive (high)	6.1	6.7	7.2	8.1
Negative (low)	0.8	11.7	15.4	13.7
IV. Emotional stability	8.9	7.3	7.8	7.4
Emotional reactivity	4.2	2.3	3.1	4.4
Self-confidence	2.2	4.6	3.7	2.5
Anxiety, fearfulness	2.4	0.4	1.1	0.5
Positive (high)	3.8	2.8	2.7	2.6
Negative (low)	5.0	4.5	5.1	4.8
V. Intellect, openness	16.3	13.9	13.0	13.4
Openness	6.3	5.7	4.7	6.2
Interest	6.1	4.2	4.6	3.6
Intelligence	4.0	4.0	3.7	3.6
Positive (high)	15.1	13.0	11.3	11.1
Negative (low)	1.2	0.9	1.8	2.4

of extraversion/sociability and agreeableness/manageability. In Category I, extraversion, the 3- to 5-year-old children were described more in terms coded on the positive, extraverted pole of the category, and in Category II, agreeableness, their descriptions were more on the negative pole, particularly when compared with the 9- to 11- and 12- to 14-year-olds. Evidently, the older children were described less in terms of being difficult to handle. In Category III, conscientiousness, there was a near absence of negative descriptors for the 3- to 5-year-olds and a sharp increase for the 6- to 8-year-olds. For the positive descriptors in this category, we found no such increase between the age groups 3 to 5 and 6 to 8 years.

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TABLE 4
Comparison of Proportions Between the Chinese and Dutch Samples

Category	Chinese (N = 4,458)	Dutch (N = 6,649)	p
I. Extraversion	27.2	28.5	
Sociability	14.0	17.1	***
Dominance	2.2	6.4	***
Activity	11.0	4.9	***
Positive (high)	18.4	20.2	
Negative (low)	8.8	7.4	
II. Agreeableness	17.4	18.9	
Helpfulness	7.7	9.6	**
Manageability	8.1	8.9	
Honest, sincere	1.6	0.5	***
Positive (high)	10.7	11.3	
Negative (low)	6.7	6.9	
III. Conscientiousness	19.4	6.8	***
Carefulness	7.1	3.2	***
Faithfulness	0.2	0.3	
Diligence	12.2	3.2	***
Positive (high)	7.1	4.3	***
Negative (low)	12.3	2.4	***
IV. Emotional stability	7.1	9.9	***
Emotional reactivity	3.4	6.7	***
Self-confidence	3.0	2.5	
Anxiety, fearfulness	0.7	0.6	
Positive (high)	2.5	2.8	
Negative (low)	4.7	6.5	**
V. Intellect, openness	14.1	12.2	*
Openness	5.9	3.8	***
Interest	4.3	5.1	
Intelligence	3.9	3.3	
Positive (high)	12.3	11.2	
Negative (low)	1.7	0.9	**
VI. Independence	5.9	3.9	***
VII. Mature for age	1.4	3.0	***
VIII. Illness, health	1.2	0.8	
IX. Rhythmicity	0.5	1.0	**
X. Gender appropriate	0.4	1.3	***
XI. School performance	2.0	3.8	***
XII. Desire to be cuddled	0.0	1.1	***
XIII. Sibling relations	0.3	3.6	***
XIV. Ambiguous phrases	3.2	5.3	***

Note. Results of t tests are based on proportions per individual child description.
*$p < .05$. **$p < .01$. ***$p < .001$.

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Effect of Gender, SES, and City in the Chinese Sample

The sample produced no significant differences for the first 5 main categories for gender of child, gender of parents, SES, and city (living in Beijing or Fuzhou). Only a few significant differences emerged in the proportions of positive and negative descriptors in some of the subcategories. Mothers gave more negative descriptors coded in Category IV, emotional stability, than did fathers. Parents in Fuzhou provided relatively more negative descriptors in Category II, agreeableness, and in Category V, intellect/openness to experience, than parents living in Beijing did. These differences were meager relative to the large number of comparisons made.

Comparison of Chinese and Dutch Proportions

We compared the proportions obtained with both samples for all age groups combined (see Table 4) and attended to only those differences that were (a) statistically significant or (b) exceeded a minimum of 3%. For the main categories, such differences were found in Category III, conscientiousness (19.4% vs. 6.8%), and Category XIII, sibling relationships (0.3% vs. 3.6%). Regarding the latter category, recall that most of the Chinese children described had no siblings (93% were only children). (The former result is discussed extensively in the Discussion section.) For the subcategories within the first 5 main categories, a pattern of opposite differences appeared in Category I, extraversion–introversion. The Chinese children were described less in terms related to sociability and dominance and more in terms related to motor activity level. For Category III, conscientiousness, both of the subcategories carefulness and diligence contributed substantially to the Chinese and Dutch difference, but the largest contribution came from diligence. In Category IV (emotional stability), there was one subcategory (emotional reactivity) that exceeded our critical level.

With regard to whether descriptors were on the positive (high) or negative (low) side of the dimensions within the categories or subcategories, we found that the difference exceeded our critical level in only one category: conscientiousness. In the subcategories carefulness and diligence, the Chinese parents used negative (or critical) terms more often than did the Dutch parents. This difference was as great as 10% of all descriptors given by the parents.

Discussion

In this study, we have shown that the categorization system developed in Western countries is also appropriate for coding child personality descriptions given by Chinese parents. The majority of Chinese child descriptors could easily be ascribed to the first 5 main categories of the coding scheme, which resemble the Big Five personality factors developed by Western psychologists.

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The Chinese parents produced about half as many descriptors per interview as the Dutch parents did. This difference probably resulted because the Dutch parents, unlike the Chinese parents, gave free descriptions of their children for a limited time before the interviews. The Dutch parents' average production of descriptors is comparable to the average production reported by other Western researchers participating in this project (see Kohnstamm, Halverson, & Mervielde, 1998). Only a sample of German parents was more productive, generating an average of 30 descriptors per interview. Notwithstanding this difference in production, the proportions over the categories and subcategories were remarkably similar for the two countries and cultures compared in this article. In general the parental concerns and interests, reflected in parents' descriptions of their children, seem very similar, at least when condensed into the categories of our scheme. This is a finding that we did not anticipate when we designed this study. Also, the finding of no important gender differences within the Chinese sample was not expected. We assumed that boys and girls as a group would be described somewhat differently, more in accordance with gender stereotypes.

Because the Chinese parental personality descriptors fit easily into the coding scheme, it is improbable that specific Chinese categories exist and have been precluded by the application of a Western coding scheme to the data. Within the common coding scheme, there was one interesting finding: a much higher proportion of conscientiousness descriptors in the Chinese child descriptions than in the Dutch child descriptions. The Dutch results are very similar to those obtained by other Western researchers (Kohnstamm et al., 1995, 1996).

How may this unusually high proportion of conscientiousness descriptors in the Chinese sample be accounted for? One explanation may be that in the Chinese sample, parents described mainly only (and, thus, first-born) children, in contrast to the Western sample, in which descriptions were mainly of children with siblings. In the Dutch, Polish, and Greek samples of this project, however, no significant differences were found between only children and children with siblings in the proportions of descriptors coded as belonging to the category of conscientiousness (Jarmuz & Marszal-Wisniewska, personal communication, 1995). Therefore, the hypothesis that conscientiousness-related characteristics are more salient in parents' descriptions of only children than in parents' descriptions of children with siblings is not supported. The unusually high proportion of conscientiousness-related characteristics in the Chinese data suggests a cultural explanation.

In our Chinese sample, we found a very clear increase in the number of negative descriptors in the conscientiousness category from ages 3 to 5 and 6 to 8 years (from 0.8% to 11.7%, respectively; see Table 3). This increase suggests that Chinese parents become more concerned about their children's school performance as their children grow up, a notion that is consistent with well-documented findings that Asian (especially Chinese) parents, compared with parents of other ethnic groups, are more concerned about their children's school achieve-

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ment (Chao, 1983; Chao & Sue, 1996; Lin & Fu, 1990; Stevenson et al., 1990; Stevenson, Chen, & Lee, 1993).

In their studies, Stevenson and colleagues (1990) found that Chinese and Japanese mothers expressed less satisfaction with their children's accomplishments than did American mothers. This finding corresponds well with the data obtained in our study. In contrast to the descriptors provided by the Dutch parents, most of those provided by the Chinese parents were negative or critical. In both the carefulness and diligence subcategories of the conscientiousness category, the proportion of descriptors coded at the negative pole was very high. The Chinese parents more frequently described their children as not careful enough, not attentive in class, too easily distracted, not ambitious enough, not diligent enough, not achievement oriented, and so on. We may infer that Chinese parents exert more pressure on their children for learning in school. Although such parental pressure has a negative effect on Chinese students' perceptions of their abilities (Chung, Walkey, & Bemak, 1997), such pressure could provide an impetus to Chinese children's school performance. This inference is supported in part by the findings of Xie (1996), who explored the relation of Chinese parenting style to only children's academic achievement. The results of the regression analyses for that study showed that the higher the parents' expectations for their fifth- and sixth-grade children's selection for their future middle school, the better the children's academic achievement.

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