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Cultural Models, Socialization Goals, and Parenting Ethnotheories

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**Journal**

Journal of Cross-Cultural Psychology, 37(2)

**ISSN**

0022-0221

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**Publication Date**

2006-03-01

**DOI**

10.1177/0022022105284494

Peer reviewed

**CULTURAL MODELS, SOCIALIZATION GOALS,  
AND PARENTING ETHNOTHEORIES**  
**A Multicultural Analysis**

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This study conceptualizes a cultural model of parenting. It is argued that cultural models are expressed in the degree of familism, which informs socialization goals that are embodied in parenting ethnotheories. Three cultural models were differentiated a priori: independent, interdependent, and autonomous-related. Samples were recruited that were expected to represent these cultural models: German, Euro-American, and Greek middle-class women representing the independent cultural model; Cameroonian Nso and Gujarati farming women representing the interdependent cultural model; and urban Indian, urban Chinese, urban Mexican, and urban Costa Rican women representing the autonomous-related model. These a priori classifications were confirmed with data that addressed different levels of the cultural models of parenting. The authors further confirmed that socialization goals mediate between broader sociocultural orientations (familism) and parenting ethnotheories concerning beliefs about good parenting. The data reveal that the model of autonomous relatedness needs further theoretical and empirical refinement. Problems with empirical studies comparing participants with very different lifestyles are discussed.

**Keywords:** independence; interdependence; ethnotheories; culture; familism

**AUTHORS' NOTE:** This study was granted by the vice presidency for research of the University of Costa Rica; the University of Osnabrueck, Germany; and the Samourkas Foundation, Greece. This article was prepared with the support of a fellowship from the Netherlands Institute for Advanced Study, Wassenaar, to the first author. We are gratefully indebted to Ana Carmiol, Marcella Baruil, Irene Salazar, Alejandra Arguedas, Olga Ruiz, Ana Cristina Solamo, Sara Carvajal, Emma Fai, Christina Papaeliou, Symeon Papadopoulos, Maria Apostolou, Maria Kopakaki, Maria Nikolakaki, Maria Vrettopoulos, and Ioulia Georgaledaki. We greatly appreciate the help of Yifang's family for helping to recruit the participants in Taiyuan. We are also gratefully indebted to Dr. Patricia Greenfield, who hosted the U.S. research team in her lab. Correspondence concerning this article should be addressed to Heidi Keller, Department of Human Sciences, Section Culture and Development, University of Osnabrueck, Seminarstr. 20, 49069, Osnabrueck, Germany; e-mail: hkeller@uos.de.

JOURNAL OF CROSS-CULTURAL PSYCHOLOGY, Vol. 37 No. 2, March 2006 155-172

DOI: 10.1177/0022022105284494

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**It is widely acknowledged** that cultural models of the self provide essential frameworks for shaping socialization goals and parental ideas about what constitutes effective child rearing (D'Andrade, 1984; Keller, Voelker & Yovsi, 2005; Keller, Yovsi, & Voelker, 2002; LeVine, 1988; Okagaki & Divecha, 1993; Super & Harkness, 1996). We draw on conceptions that suggest that cultural models and thus socialization goals and parenting ethnotheories reflect the demands of the ecocultural environment (Berry, 1976; Hewlett & Lamb, 2002; LeVine, 1974, 1988; Whiting, 1963), the socioeconomic structure of a society (Morelli & Tronick, 1991), the human ecology (Lamb & Sternberg, 1992), or type of community (Levy, 1984). With our study, we address three cultural models as specified by Kağitçibaşı (1996a, 1996b, 2005): the model of independence, the model of interdependence, and the model of autonomous relatedness.<sup>1</sup> These models are based on combinations of the poles of two underlying independent dimensions: the dimension of interpersonal distance with the poles of relatedness and separateness and the dimension of agency with the poles of autonomy and heteronomy. The model of independence prioritizes the perception of the individual as separate, autonomous, bounded, and self-contained. Socialization strategies focus on mental states and personal qualities to support self-enhancement and self-maximization. The model of independence characterizes urban, educated families in industrialized and postindustrialized information societies (Kağitçibaşı, 1996a; Keller, 2003b; Markus & Kitayama, 1991; Shweder, 1995). The model of interdependence prioritizes the individual as interrelated with others and heteronomous (coagent). Socialization strategies focus on the acceptance of norms and hierarchies to contribute to the harmonic functioning of the social unit, in particular, the family (Greenfield, Keller, Fuligni, & Maynard, 2003; Kağitçibaşı, 1996a; Keller, 2003b). The model of interdependence characterizes rural, subsistence-based, mainly farming families. The model of autonomous relatedness combines interpersonal relatedness with autonomous functioning. Socialization strategies focus on both harmonic integration into the family and autonomy as an agent (Kağitçibaşı, 1996a, 2005; Keller, Yovsi, et al., 2004). The model of autonomous relatedness portrays the urban, educated, middle-class families in societies with an interrelated cultural heritage (Kağitçibaşı, 1996a, 2005).

Although the cultural models were conceptualized on the basis of a restricted range of cultural environments (e.g., Fiske, Kitayama, Markus, & Nisbett, 1998; Harwood, Leyendecker, Carlson, Asencio, & Miller, 2002; Nsamenang & Lamb, 1994; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Wang, 2004), their applicability is assumed to cover a broader geographical scale applying to multiple cultural environments (Bornstein et al., 1996; Keller, 2003a; Markus & Kitayama, 1991). This view does not exclude, however, that there are differences between cultural communities that ascribe to the same cultural model. Only few studies have addressed similarities and differences between cultural environments that can be assumed to follow the same cultural model (e.g. Harkness, Super, & van Tijen, 2000; Keller & Demuth, 2004). The first goal of our study is therefore to contribute to the understanding of similarities and differences of cultural groups that have been characterized as embodying the same cultural model. We analyze three samples of urban, educated, middle-class families from information societies with an assumed independent cultural model (Germans, Greeks, Euro-Americans), two samples from rural farming communities with low education and traditional lifestyle with an assumed interdependent cultural model (Cameroonian Nso farmers and Indian Gujarati villagers), and four samples of urban, educated, middle-class families from societies with an interdependent cultural heritage (Costa Ricans, Chinese, Mexicans, and Indians).

There are only few studies addressing cultural models, socialization goals, and parenting ethnotheories in one study (e.g., Chao, 2000; Suizzo, 2002). It can be assumed that cultural models define desirable endpoints for development (Csikszentmihalyi & Rathunde, 1998) that inform socialization goals; socialization goals are assumed to define the ideas about parenting in terms of parenting ethnotheories (Bugenthal & Johnston, 2000; Keller, 2003b; Martin & Tesser, 1996). The second goal of our study is therefore aimed at testing the assumption that socialization goals mediate the relation between cultural models in terms of familism and parenting ethnotheories. The analysis of socialization goals and parenting ethnotheories needs to be sensitive to developmental phases because the dimensions of interpersonal distance and the dimension of agency are differently negotiated for different developmental phases (Diehl, Owen, & Youngblade, 2004). We concentrate on the developmental phase of infancy, especially the 1st year of life.

We understand familism as representing the cultural model (Harrison, Wilson, Pine, Chan, & Buriel, 1990; Laosa, 1980, 1982). Familism encompasses loyalty, reciprocity, and solidarity with the members of the family. In this sense, the family is an extension of the self (Cortés, 1995). We expect familism to be higher in sociocultural contexts with an interdependent as well as with an autonomous-related cultural model. We expect it to be lower in ecocultural contexts with an independent cultural model.

With respect to socialization goals, we expect the cultural samples with an independent cultural model to be highest in autonomous and lowest in relational socialization goals. Furthermore, we expect the samples with an interdependent cultural model to score highest on relational and lowest in autonomous socialization goals, whereas we expect the samples with an assumed autonomous-related cultural model to score similarly on relational and autonomous socialization goals.

On the basis of earlier studies, we can relate the preference of face-to-face contact, object play, and responsivity to positive infant signals to the development of autonomy, whereas the preference of body contact, body stimulation, and responsivity to negative signals relates to the development of relatedness (Keller, 2003a; Keller et al., 2002; Keller et al., 2005; Keller, Yovsi, et al., 2004). We therefore expect participants with an independent cultural model to emphasize parenting practices relating to face-to-face contact and object play in their parenting ethnotheories; we expect participants with an interdependent cultural model to emphasize parenting practices relating to body contact and body stimulation in their parenting ethnotheories. It can be expected that participants with an autonomous-related cultural model value parenting practices in their parenting ethnotheories that support autonomy (face-to-face contact and object play) as well as parenting practices that support relatedness (body contact and body stimulation).

Furthermore, we want to contribute to the understanding of the relations between familism, socialization goals, and parenting ethnotheories. We expect that socialization goals translate the cultural model as expressed in familism into parenting ethnotheories and thus mediate the direct path between familism and parenting ethnotheories.

## METHOD

### PARTICIPANTS

The participants of the study were 204 mothers of 3-month-old infants from different ecocultural environments. The average age of the mothers was 29.7 ( $SD = 5.68$ ) years,

ranging from 16 to 46 years. An overview of the sociodemographic characteristics of the subsamples is presented in Table 1.

The 36 German mothers lived in Berlin, the 21 mothers of the Euro-American sample in Los Angeles, and the 46 Greek mothers in Athens. These three samples are considered as embodying an independent cultural model. Mothers of these groups had achieved a high level of education, are relatively older, and have fewer children than the mothers in the other groups. This sociodemographic profile has been confirmed as characteristic for women with an independent cultural model in different studies (Keller, 2003a; Keller et al., 2005; Keller, Lohaus, et al., 2004; Keller, Yovsi, et al., 2004).

The 17 Chinese mothers lived in Beijing and Taiyuan, and the 21 mothers from Costa Rica lived in San José. The 23 urban Indian mothers lived in Delhi, and the 12 mothers from Mexico lived in Mexico City. These four groups are considered as representing an autonomous-related cultural model with an interdependent cultural heritage but living now in large cities, mainly the capitals, of societies with increasing industrialization. The educational attainment of the mothers is heterogeneous within these subsamples but clearly higher than in the samples with an interdependent cultural model. The mothers are younger than in the samples with an independent cultural model and have slightly more children. However, in the Chinese sample, there is only one child per mother because of the one-child policy that was implemented in 1979.

The 16 rural Nso mothers lived in a village in Bui division, Northwestern province of Cameroon. They all made their living from farming and had only primary education, except 1 mother who had secondary education (Table 1). The number of children per mother is higher than in all the other samples. The average age of the rural Nso mothers was higher than expected with 29.8 years but ranging from 19 to 46 years and including mothers who had already eight or more children. The 12 rural Gujarati participants of the study lived in villages north of the city of Vadodara, India. The mothers mainly do farming and the housework. These mothers were very young (21.7 years on average) but had already two children on average. Their educational attainment was low. Half of the rural Gujarati mothers never attended school, but 25% had secondary education and 1 mother had achieved general qualification for university entrance. These two groups were considered as representing an interdependent cultural model.

The differences in the number of children between the samples are in line with the demographic country statistics (in Cameroon, 4.6; India, 3.0; Mexico, 2.5; Costa Rica, 2.3; United States, 2.1; China, 1.8; Germany, 1.4; Greece, 1.3). Gender composition in the samples was almost equal, with 48% male and 52% female infants in the total sample.

#### RECRUITMENT AND PROCEDURE

The families were recruited soon after the birth of an infant who was 3 months of age at the time of assessment. Recruitment of all subsamples was equivalent with contacting hospitals, pediatricians, health workers, birth preparation, and baby classes. Parents were informed that we were interested in their ideas about good parenting and their beliefs about child development in different cultures. Consenting to participate was on a completely voluntary basis.

Families were contacted by phone or in person (in the case of the rural samples), and an appointment for the interview was set up when the infant was 3 months old. The families were visited in their homes. In each case, a trained female research assistant assessed the data with the mother in her respective native language, which was German in the case of the Berlin

**TABLE 1**  
**Mean Age of Mothers (in years), Mean Number of Children, Percentage of First-Born Infants, Percentage of Female Infants, Percentage of Married Mothers, and Mean Number of Persons Living in the Household of Different Samples**

| Sociodemographic Variable                                                   | Independent Model        |                                     |                         | Autonomous-Related Model            |                               |                              | Interdependent Model  |                              |                               |
|-----------------------------------------------------------------------------|--------------------------|-------------------------------------|-------------------------|-------------------------------------|-------------------------------|------------------------------|-----------------------|------------------------------|-------------------------------|
|                                                                             | Berlin, Germany (n = 36) | Los Angeles, United States (n = 21) | Athens, Greece (n = 46) | Beijing and Taiyuan, China (n = 17) | San José, Costa Rica (n = 21) | Mexico City, Mexico (n = 12) | Delhi, India (n = 23) | Rural Nso, Cameroon (n = 16) | Rural Gujarat, India (n = 12) |
| Mean age of mothers (in years)                                              | 33.8                     | 34.7                                | 30.3                    | 27.7                                | 26.1                          | 25.3                         | 29.0                  | 29.8                         | 21.7                          |
| Mean years of school attendance                                             | 15.0                     | 17.2                                | 13.5                    | 15.1                                | 9.8                           | 10.3                         | 15.3                  | 7.1                          | 3.4                           |
| Mean number of children                                                     | 1.4                      | 1.4                                 | 1.3                     | 1.0                                 | 1.6                           | 2.4                          | 1.6                   | 3.3                          | 1.9                           |
| Percentage of first-born infants                                            | 69.4                     | 66.7                                | 67.4                    | 100.0                               | 57.9                          | 25                           | 39.1                  | 25                           | 41.7                          |
| Percentage of female infants                                                | 47.2                     | 61.9                                | 52.2                    | 58.3                                | 38.1                          | 41.7                         | 43.5                  | 62.5                         | 58.3                          |
| Percentage of married mothers (living together in an unmarried partnership) | 38.9 (52.8)              | 100.0                               | 100.0                   | 100.0                               | 52.4 (28.6)                   | 50.0 (41.7)                  | 100.0                 | 68.8                         | 100.0                         |
| Mean number of persons living in the household                              | 3.5                      | 3.5                                 | —                       | 4.5                                 | —                             | 5.6                          | 6.1                   | 6.8                          | 6.0                           |

NOTE: Dashes indicate no information about number of persons per household. Values in parentheses denote percentage of mothers living in an unmarried partnership.

**TABLE 2**  
**Results of Classification by Discriminant Function Analysis (in percentages)**

| Original Group Membership | Predicted Group Membership |                          |                      |
|---------------------------|----------------------------|--------------------------|----------------------|
|                           | Independent Model          | Autonomous-Related Model | Interdependent Model |
| Independent model         | 79.6                       | 20.4                     | 0.0                  |
| Autonomous-related model  | 38.4                       | 61.6                     | 0.0                  |
| Interdependent model      | 0.0                        | 25.0                     | 75.0                 |

NOTE:  $N = 204$ . Of original grouped cases, 72.5% were correctly classified.

sample, English in the Los Angeles sample, Greek for the mothers from Athens, Mandarin for the Chinese mothers, Spanish for the mothers from Costa Rica and Mexico, Hindi or English for the Delhi sample, Lamnso for the Cameroonian sample, and Gujarati for the rural Indian sample. The interview questions were previously translated and back-translated. The urban, educated participants answered questionnaires. The women of the rural samples were interviewed with the same questions. However, because the rural women were not familiar with the rating scales, they qualified their answers with differing amounts of pebbles.

#### MEASURES

*Familism.* The Family Allocentrism Scale (Lay et al., 1998) was used to assess the degree of familism. This scale consists of 21 statements about family cohesion (such as “my family’s opinion is important to me”), including six inverted items. The mothers were asked to evaluate how much they agreed to the statements with a 5-point Likert-type scale ranging from *not at all* (1) to *completely* (5). The measure was generated by recoding the inverted items and summing the values of all items (Cronbach’s  $\alpha = .89$  across all participants, ranging from .74 to .83 within the groups).

*Socialization goals.* Socialization goals were assessed with a list of 10 statements concerning qualities that a child should learn or develop during the first 3 years of life. Again, the mothers were asked to evaluate their agreement to these statements using a 5-point Likert-type scale ranging from *not at all* (1) to *completely* (5). A principal component analysis produced two dimensions, which can be labeled as representing autonomous (5 items) or relational (5 items) socialization goals. The Autonomous Socialization Goals subscale included items such as “develop self-confidence” or “develop competitiveness” whereas the Relational Socialization Goals subscale included items such as “obey elderly people” or “learn to care for the wellbeing of others.” These subscales showed very good reliabilities (Cronbach’s  $\alpha = .93$  for the autonomous socialization goals across all participants, ranging from .88 to .95 within the groups, and Cronbach’s  $\alpha = .89$  for the relational socialization goals, ranging from .82 to .89 within the groups). Measures were generated by calculating the mean of the items loading on each subscale. The measures did not correlate with each other ( $r = .01, p = .904$ ).

*Parenting ethnotheories.* The parenting ethnotheories were assessed with a list of 10 statements describing parenting practices. These 10 statements were assigned to an autonomous (5 items) or relational (5 items) Parenting Ethnotheories subscale based on earlier studies on cultural conceptions of parenting (Keller, 2003a; Keller et al., 2002; Keller et al., 2005)

as well as cultural differences in parenting styles (Keller, 2003a; Keller, Lohaus, et al., 2004; Keller, Yovsi, et al., 2004). The mothers were asked to express their agreement on a 5-point Likert-type scale ranging from *not agree at all* (1) to *agree completely* (5). Measures were generated by calculating the mean of the items that were part of each respective subscale. The Autonomous Parenting Ethnotheories subscale included items that focus on early self-regulation of the infant, contingent reactions to positive infant signals, object stimulation, and face-to-face interaction. The Relational Parenting Ethnotheories subscale consisted of items emphasizing body contact, motor stimulation, and prompt satisfaction of physical needs. The measures negatively correlated with each other ( $r = -.25, p < .01$ ). The reliabilities of these subscales were acceptable (for the Autonomous Parenting Ethnotheories subscale, Cronbach's  $\alpha = .78$  across all participants, ranging from .52 in the autonomous-related group to .83 in the interdependent groups; for the Relational Parenting Ethnotheories subscale, across all participants, Cronbach's  $\alpha = .86$ , ranging from .66 in the interdependent group to .82 in the independent group).

## RESULTS

### SIMILARITIES: THE CLASSIFICATIONS WITH RESPECT TO THE CULTURAL MODELS

A discriminant function analysis was conducted to test the aggregation of mothers into the three groups of independent, interdependent, and autonomous-related cultural models. This analysis confirmed the a priori classification. The results of the classification of the mothers to one of the three groups of cultural models are presented in Table 2. A total of 72.5% of the mothers were correctly classified by two significant canonical discriminant functions,  $\chi^2(10) = 255.65, p < .001, R = .840$ ; and  $\chi^2(4) = 12.61, p < .05, R = .248$ .

In the group with an assumed independent cultural model, 80% of the participants were correctly classified into this group. Only 20% of the mothers of this group were misclassified as autonomous-related, but no participant was classified into the group with an assumed interdependent cultural model. Within the respective samples, 92% of the mothers from Berlin, 81% of the mothers from Los Angeles, and 70% of the Greek mothers were correctly classified into the group with an assumed independent cultural model. In the group with the assumed autonomous-related cultural model, 62% of the mothers were correctly classified; all misclassified participants were attributed to the independent cultural model. The lowest fit was among the Mexican mothers, where only 33% were correctly classified; 88% of the Chinese mothers, 65% of the mothers from Delhi, and 52% of the mothers from Costa Rica were correctly classified into the group with an assumed autonomous-related model. In the group with an assumed interdependent cultural model, 25% of the participants were misclassified as autonomous-related, and no participant as independent. All the misclassified mothers were from the rural Gujarat (India) sample whereas all rural Nso mothers were correctly classified.

### DIFFERENCES: THE DIFFERENCES BETWEEN AND WITHIN THE THREE GROUPS OF MOTHERS OF ASSUMED CULTURAL MODELS

The means of the dependent measures of the groups of assumed cultural models are presented in Table 3. A MANOVA showed that the three groups differed significantly on all dependent measures,  $F(10, 396) = 24.61, p < .001, \eta^2 = .383$ .



**TABLE 3**  
**Differences Between the Groups of Cultural Models of Parenting:**  
**Means of All Measures, Standard Deviations, Summary**  
**Statistics, Effect Sizes, and Post Hoc Results**

|                       | Cultural Model of Parenting |       |                                    |      |                            |      | F(2, 201) | eta <sup>2</sup> |
|-----------------------|-----------------------------|-------|------------------------------------|------|----------------------------|------|-----------|------------------|
|                       | Independent<br>(n = 103)    |       | Autonomous-<br>Related<br>(n = 73) |      | Interdependent<br>(n = 28) |      |           |                  |
|                       | M                           | SD    | M                                  | SD   | M                          | SD   |           |                  |
| Familism              |                             |       |                                    |      |                            |      |           |                  |
| Allocentrism          | 68.7 <sub>a</sub>           | 10.92 | 77.1 <sub>b</sub>                  | 9.57 | 98.9 <sub>c</sub>          | 8.17 | 98.76***  | .496             |
| Socialization goal    |                             |       |                                    |      |                            |      |           |                  |
| Relational            | 3.5 <sub>a</sub>            | 0.84  | 3.8 <sub>b</sub>                   | 0.80 | 4.8 <sub>c</sub>           | 0.52 | 30.53***  | .233             |
| Autonomous            | 4.0 <sub>a</sub>            | 0.71  | 4.0 <sub>a</sub>                   | 0.85 | 2.5 <sub>b</sub>           | 1.44 | 33.02***  | .247             |
| Parenting ethnotheory |                             |       |                                    |      |                            |      |           |                  |
| Relational            | 2.3 <sub>a</sub>            | 0.51  | 2.7 <sub>b</sub>                   | 0.50 | 3.5 <sub>c</sub>           | 0.23 | 69.66***  | .409             |
| Autonomous            | 2.9 <sub>a</sub>            | 0.80  | 2.9 <sub>a</sub>                   | 0.66 | 1.8 <sub>b</sub>           | 0.94 | 24.56***  | .196             |

NOTE: Indexed letters indicate results of simple main effects testing (with Bonferroni adjustment).  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Participants with an assumed independent cultural model scored lowest on family allocentrism, relational-socialization goals, and relational-parenting ethnotheory, whereas participants with an interdependent cultural model scored highest on these scales, and participants with an autonomous-related cultural model occupied an intermediate position. Concerning the autonomous-socialization goals and autonomous-parenting ethnotheory, participants of the independent group did not differ from the autonomous-related group. As expected, these two groups scored higher than the interdependent group on autonomous-socialization goals and parenting ethnotheory.

Within each group of cultural model, there were differences between the samples, as well, which were tested in three MANOVAs with age of the mothers, years of school attendance, and number of children as covariates.

The means of the dependent measures of the group with an assumed independent model with the samples from Berlin, Los Angeles, and Athens are presented in Table 4. The group differences were significant,  $F(10, 186) = 4.81, p < .001, eta^2 = .205$ , and education was a significant covariate for the dependent measures,  $F(5, 92) = 5.28, p < .001, eta^2 = .223$ . Participants from Berlin scored lower on family allocentrism and relational socialization goals than the participants from Los Angeles and Athens. The three groups did not differ concerning autonomous-socialization goals. Concerning relational-parenting ethnotheory, mothers from Athens did not differ from the other two groups, but mothers from Berlin scored lower than mothers from Los Angeles. The mothers from Berlin scored lower on autonomous-parenting ethnotheory than the mothers from Los Angeles and Athens. The educational attainment of the mothers affected their relational-parenting ethnotheory,  $F(1, 96) = 19.50, p < .001, eta^2 = .169$ .

The samples grouped as autonomous-related also differed significantly,  $F(15, 186) = 9.21, p < .001, eta^2 = .426$ . The covariate age of the mother was significant for the dependent

**TABLE 4**  
**Differences Between the Independent Groups: Means of All Measures, Standard Deviations, Summary Statistics, and Effect Sizes**

|                       | <i>Berlin, Germany</i><br>(n = 36) |       | <i>Los Angeles, United States</i><br>(n = 21) |      | <i>Athens, Greece</i><br>(n = 46) |      | F(2, 96) | eta <sup>2</sup> |
|-----------------------|------------------------------------|-------|-----------------------------------------------|------|-----------------------------------|------|----------|------------------|
|                       | M                                  | SD    | M                                             | SD   | M                                 | SD   |          |                  |
| Familism              |                                    |       |                                               |      |                                   |      |          |                  |
| Allocentrism          | 62.6 <sub>a</sub>                  | 10.55 | 72.3 <sub>b</sub>                             | 8.54 | 73.0 <sub>b</sub>                 | 7.88 | 13.68*** | .222             |
| Socialization goal    |                                    |       |                                               |      |                                   |      |          |                  |
| Relational            | 3.0 <sub>a</sub>                   | 0.68  | 3.5 <sub>b</sub>                              | 0.69 | 3.7 <sub>b</sub>                  | 0.87 | 8.68***  | .153             |
| Autonomous            | 3.9 <sub>a</sub>                   | 0.77  | 4.1 <sub>a</sub>                              | 0.56 | 4.1 <sub>a</sub>                  | 0.73 | 1.27     |                  |
| Parenting ethnotheory |                                    |       |                                               |      |                                   |      |          |                  |
| Relational            | 2.1 <sub>a</sub>                   | 0.46  | 2.3 <sub>b</sub>                              | 0.44 | 2.4 <sub>a,b</sub>                | 0.57 | 3.48*    | .068             |
| Autonomous            | 2.4 <sub>a</sub>                   | 0.76  | 3.0 <sub>b</sub>                              | 0.57 | 3.3 <sub>b</sub>                  | 0.73 | 9.82***  | .170             |

NOTE: Indexed letters indicate results of simple main effects testing (with Bonferroni adjustment).

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**TABLE 5**  
**Differences Between the Autonomous-Related Groups: Means of All Measures, Standard Deviations, Summary Statistics, and Effect Sizes**

|                       | <i>Beijing and Taiyuan, China</i><br>(n = 17) |      | <i>San José, Costa Rica</i><br>(n = 21) |      | <i>Mexico City, Mexico</i><br>(n = 12) |      | <i>Delhi, India</i><br>(n = 23) |      | F(3, 64) | eta <sup>2</sup> |
|-----------------------|-----------------------------------------------|------|-----------------------------------------|------|----------------------------------------|------|---------------------------------|------|----------|------------------|
|                       | M                                             | SD   | M                                       | SD   | M                                      | SD   | M                               | SD   |          |                  |
| Familism              |                                               |      |                                         |      |                                        |      |                                 |      |          |                  |
| Allocentrism          | 80.2 <sub>a</sub>                             | 5.36 | 67.6 <sub>b</sub>                       | 8.93 | 72.9 <sub>b</sub>                      | 7.37 | 84.7 <sub>a</sub>               | 5.16 | 16.92*** | .442             |
| Socialization goal    |                                               |      |                                         |      |                                        |      |                                 |      |          |                  |
| Relational            | 3.3 <sub>a,b</sub>                            | 0.79 | 4.3 <sub>a</sub>                        | 0.59 | 3.5 <sub>b</sub>                       | 0.94 | 3.9 <sub>a,b</sub>              | 0.67 | 5.79**   | .213             |
| Autonomous            | 4.6 <sub>a</sub>                              | 0.45 | 4.2 <sub>a</sub>                        | 0.56 | 3.5 <sub>b</sub>                       | 1.19 | 3.6 <sub>b</sub>                | 0.81 | 10.73*** | .335             |
| Parenting ethnotheory |                                               |      |                                         |      |                                        |      |                                 |      |          |                  |
| Relational            | 3.0 <sub>a</sub>                              | 0.34 | 2.7 <sub>b</sub>                        | 0.48 | 2.5 <sub>b</sub>                       | 0.66 | 2.4 <sub>b</sub>                | 0.38 | 9.57***  | .310             |
| Autonomous            | 3.1 <sub>a</sub>                              | 0.54 | 2.6 <sub>a</sub>                        | 0.56 | 3.1 <sub>a</sub>                       | 0.69 | 3.1 <sub>a</sub>                | 0.73 | 1.49     |                  |

NOTE: Indexed letters indicate results of simple main effects testing (with Bonferroni adjustment).

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

measures,  $F(5, 60) = 4.16$ ,  $p < .01$ ,  $eta^2 = .257$ . The means of the dependent measures of the Chinese, Costa Rican, and Delhi samples are presented in Table 5. The participants from San José and Mexico City scored lower on family allocentrism than the participants from Beijing and Delhi. Concerning their relational socialization goals, the participants from Mexico City scored lower than the mothers from San José, but the Beijing participants and the Delhi mothers did not differ from the other groups. Concerning the autonomous socialization goals, participants from Delhi and Mexico City scored lower than participants from San José and

**TABLE 6**  
**Differences Between the Interdependent Groups: Means of All Measures, Standard Deviations, Summary Statistics, and Effect Sizes**

|                       | <i>Rural Nso, Cameroon</i><br>(n = 16) |      | <i>Rural Gujarat, India</i><br>(n = 12) |      | F(1, 23) | eta <sup>2</sup> |
|-----------------------|----------------------------------------|------|-----------------------------------------|------|----------|------------------|
|                       | M                                      | SD   | M                                       | SD   |          |                  |
| Familism              |                                        |      |                                         |      |          |                  |
| Allocentrism          | 100.0                                  | 1.79 | 89.5                                    | 6.43 | 10.92**  | .322             |
| Socialization goal    |                                        |      |                                         |      |          |                  |
| Relational            | 5.0                                    | 0.00 | 4.5                                     | 0.70 | 5.20*    | .184             |
| Autonomous            | 1.5                                    | 0.72 | 3.9                                     | .99  | 18.97*** | .452             |
| Parenting ethnotheory |                                        |      |                                         |      |          |                  |
| Relational            | 3.5                                    | 0.20 | 3.4                                     | 0.28 | .93      |                  |
| Autonomous            | 1.3                                    | 0.39 | 2.5                                     | 1.04 | 5.07*    | .181             |

NOTE: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**TABLE 7**  
**Pearson Correlations Among the Measures**

| Variable                            | 1      | 2     | 3      | 4      | 5 |
|-------------------------------------|--------|-------|--------|--------|---|
| 1. Allocentrism                     | —      |       |        |        |   |
| 2. Relational-socialization goal    | .47**  | —     |        |        |   |
| 3. Autonomous-socialization goal    | -.35** | .01   | —      |        |   |
| 4. Relational-parenting ethnotheory | .51**  | .41** | -.20** | —      |   |
| 5. Autonomous-parenting ethnotheory | -.20** | -.11  | .32**  | -.25** | — |

NOTE:  $N = 204$ .

\* $p < .05$ . \*\* $p < .01$ .

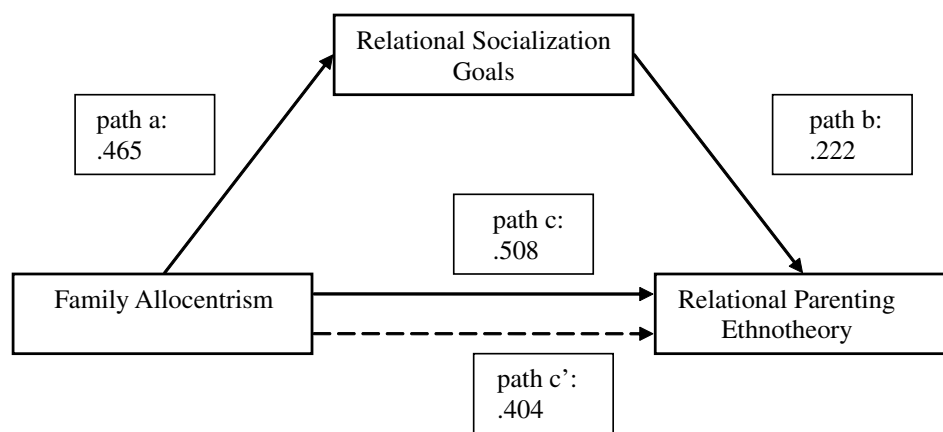
the Beijing mothers. Beijing participants scored higher on relational-parenting ethnotheories than all other groups who did not differ from each other. There were no group differences concerning autonomous-parenting ethnotheory.

The means of the dependent measures of the rural samples from Cameroon and Gujarat are presented in Table 6. The samples with an assumed interdependent cultural model also differed significantly,  $F(5, 19) = 7.70$ ,  $p < .001$ ,  $eta^2 = .669$ ; there was no significant effect of the covariates. The Nso participants scored higher than the rural Gujarati mothers on family allocentrism and relational-socialization goals. In contrast, the Gujarati participants scored higher than the Nso mothers on autonomous-socialization goals and autonomous-parenting ethnotheory. There were no group differences concerning relational-parenting ethnotheory.

#### RELATIONS BETWEEN CULTURAL MODELS OF PARENTING, SOCIALIZATION GOALS, AND PARENTING ETHNOTHEORIES

The relations between the measures are shown as Pearson correlations in Table 7.

To test the hypothesis that socialization goals mediate the effect of family allocentrism on parenting ethnotheories, we used Baron and Kenny's (1986) three-step regression



**Figure 1: Mediation Test of the Effect of Family Allocentrism on the Relational-Parenting Ethnotheory**

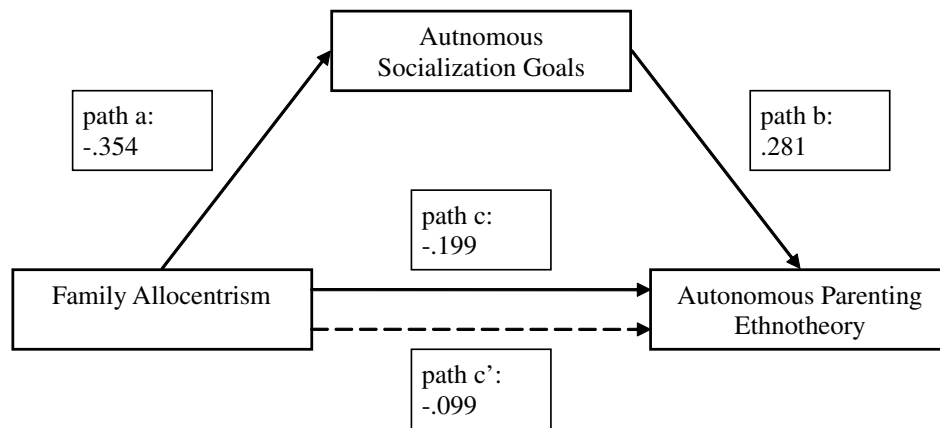
Standardized regression coefficients ( $\beta$ ) are shown. Path C is the unmediated family allocentrism path. Path C' is the effect of family allocentrism as mediated by the relational socialization goals.

approach. We used the Goodman (I) version of Sobel's test suggested in Baron and Kenny (1986) to assess whether the indirect effect of family allocentrism on the parenting ethnotheories via the socialization goals is significantly different from zero. We performed this procedure twice, once for relational-parenting ethnotheory as dependent variable and once for autonomous-parenting ethnotheory as dependent measure.

The results of the mediation tests for relational parenting are presented in Figure 1. The direct effect of family allocentrism on the relational-parenting ethnotheory (Path C) was significant ( $\beta = .51, p < .001$ ). In the test of mediation, the effect of family allocentrism on the relational-socialization goals (Path A,  $\beta = .47, p < .001$ ) and the effect of socialization goals on the relational-parenting ethnotheory (Path B,  $\beta = .22, p < .01$ ) were also significant. The standardized regression coefficient was smaller although still significant for the mediated effect (Path C',  $\beta = .40, p < .001$ ), but the indirect effect of family allocentrism on the relational-parenting ethnotheory via the relational-socialization goals was significantly different from zero,  $z_{\text{Goodman(I)}} = 3.00, p < .001$ .

The results of the mediation tests for the autonomous-parenting ethnotheory are presented in Figure 2. The direct effect of family allocentrism on the autonomous-parenting ethnotheory (Path C) was significant ( $\beta = -.20, p < .01$ ). In the test of mediation, the effect of family allocentrism on the autonomous-socialization goals (Path A,  $\beta = -.35, p < .001$ ), and the effect of socialization goals on the autonomous-parenting ethnotheory (Path B,  $\beta = .28, p < .001$ ) were also significant. The indirect effect of family allocentrism on the autonomous-parenting ethnotheory via the autonomous-socialization goals was significantly different from zero,  $z_{\text{Goodman(I)}} = -3.10, p < .001$ . As a consequence, the standardized regression coefficient was smaller and no longer significant for the mediated effect (Path C',  $\beta = -.10, p = .164$ ).

In sum, both models show that family allocentrism has a strong indirect effect on parenting ethnotheories via socialization goals.



**Figure 2: Mediation Test of the Effect of Family Allocentrism on the Autonomous-Parenting Ethnotheory**

Standardized regression coefficients ( $\beta$ ) are shown. Path C is the unmediated family allocentrism path. Path C' is the effect of family allocentrism as mediated by the autonomous socialization goals.

## DISCUSSION

In the following paragraphs, we first discuss the results with respect to the research questions as presented in the Results section. We then discuss limitations of our study and make suggestions for future research.

### THE CLASSIFICATION WITH RESPECT TO CULTURAL MODELS

Our results confirm that there are significant differences with respect to conceptions of parenting in cultural communities with different cultural models. These differences pertain to all dimensions that are included in this study. This general finding supports our assumption that the three cultural models are useful for identifying commonalities of cultural conceptions of parenting.

The cultural models of interdependence and independence confirm our assumptions and reveal conceptual consistency across the three dimensions of familism, socialization goals, and parenting ethnotheories. The results concerning the autonomous-related cultural model only partly confirm our hypotheses. We expected the participants with an autonomous-related cultural model to score approximately as high as the participants with an interdependent cultural model with respect to familism, relational-socialization goals, and relational-parenting ethnotheory; however, they occupied an intermediate position between the participants with an independent and those with an interdependent cultural model. With respect to autonomous-socialization goals and parenting ethnotheory, the participants with an autonomous-related cultural model scored as expected: approximately as high as the participants with an independent model. This result may reflect that relatedness in urban, educated families is also changing as an adaptation to a different lifestyle. The theoretical question is whether autonomous relatedness is a qualitatively distinct model, as Kağıtçıbaşı argues (1996a, 2005), or whether it represents a transitory stage between interdependence

and independence, as Greenfield (1999) argues. In this case, the data would reflect that conceptions of autonomy change faster than conceptions of relatedness. More theoretical refinement as well as empirical research is needed to better understand the cultural model that is oriented toward autonomous relatedness.

The different patterns of results within the three groups of cultural models further indicate that despite the commonalities, there are also substantial variations. Although we can classify totally 73% of our participants correctly, there are differences between the samples pertaining to the same cultural model, as well. Within the independent cultural model, the majority of mothers fit with the cultural model, with the Greek mothers having the lowest fit with 70%. Within the interdependent model, all the misclassified mothers belong to the Gujarati sample. The autonomous-related group demonstrated overall the lowest fit (62%) and the highest variability within the group. Different reasons may account for these variations, which will be addressed in the following section.

#### THE DIFFERENCES WITHIN THE CULTURAL MODELS

Within the independent group, the mothers from Berlin differed from the other groups concerning four of our five measures. They scored lower on family allocentrism, relational-socialization goals, and relational-parenting ethnotheory. This could reflect the tendency to increasing individualization in Germany, as proclaimed by German sociologists (Beck & Beck-Gernsheim, 1994). On the other hand, the Berlin mothers scored also lower on autonomous-parenting ethnotheory, which is not consistent with this interpretation but supports the position that interpersonal distance and agency are two independent dimensions, as suggested by Kağitçibaşı (1996a, 2005). In a similar vein, Harkness et al. (2000) have demonstrated that Dutch and Euro-American middle-class parents value different traits in their children, although both groups of parents are expressing independent socialization goals.

Within the autonomous-related group, the samples from Costa Rica and Mexico had unexpectedly low scores on family allocentrism. Although the reliability of this scale was good in these two samples, it seems that this scale does not represent the Latin American sense of family cohesion. Altogether, the samples with an assumed autonomous-related cultural model show the lowest consistencies across the different dependent measures. These results possibly reflect the large differences in the educational attainments of the participants of these samples as well as the great diversity in cultural backgrounds and histories of the samples subsumed into the autonomous-related group.

Within the interdependent group, the Nso mothers scored higher than the Gujarati mothers on family allocentrism and relational-socialization goals. However, these are differences with small effect sizes that become statistically significant because of the very small variance, which is characteristic for the cultural model of interdependence. The Gujarati mothers scored unexpectedly high on autonomous-socialization goals, even higher than the urban Indian mothers from Delhi. These results may be reflective of the fact that each cultural group occupies their positions on two dimensions: interpersonal distance and agency, which may vary independent of each other.

This result may also reflect difficulties in establishing conceptual equivalence in multi-cultural studies, which we address later as a constraint of this study. Moreover, the Gujarati mothers were the ones most unfamiliar with being in the center of attention and with answering questions. They are supervised by their mothers-in-law, who usually do not tolerate their sitting and talking and not working (see also Rogoff, Mistry, Göncü, & Mosier, 1993, for a tribal Indian sample).

Nevertheless, more quantitative and qualitative studies are needed to disentangle differences between samples with respect to many different possible influences on ideas about parenting. A focus on individual differences is also necessary in future research because cultural group membership cannot fully explain individual experience. To regard culture as a shifting continuum of shared construction of reality, as Harwood et al. (2002) suggest, would be helpful to better understand commonalities and differences between members of the same cultural community. Nevertheless, it seems to be useful to describe systematic differences in behavior, thought, and ideas by these divergent cultural models (Trafimow, Triandis, & Goto, 1991; Wang, Leichtman, & White, 1998).

#### **RELATIONS AMONG CULTURAL MODELS, SOCIALIZATION GOALS, AND PARENTING ETHNOTHEORIES**

In the next step of our data analyses, we investigated how the different levels structurally relate to each other. We demonstrated that socialization goals mediate the relation between the conception of familism as expressed in allocentrism and parenting ethnotheories. The Family Allocentrism Scale, which is constructed as a unidimensional scale, seems to include more than one dimension because it correlates with the Relational-Socialization Goals, Relational-Parenting Ethnotheory, Autonomous-Socializations Goals, and Autonomous-Parenting Ethnotheory scales. However, the relation between family allocentrism and relational-parenting ethnotheory seems to be stronger as it is only partially mediated by socialization goals. In contrast, the relation between family allocentrism and autonomous-parenting ethnotheory is fully explained by the indirect path via the autonomous-socialization goals.

#### **METHODOLOGICAL CONSTRAINTS OF OUR STUDY**

The inclusion of samples with substantially different sociodemographic profiles, different lifestyles, and thus different exposure to the materials and methodology of this study is extremely challenging. The participants with an assumed independent cultural model spend most of their days almost exclusively with their (often single) babies. These women welcomed the research teams as a nice distraction of the "mother-baby isolation," as one Los Angeles mother said. Moreover, they enjoyed contributing their experience to the advancement of the understanding of children's development. For the participants with an assumed autonomous-related cultural model, the participation in home-visit research studies was unfamiliar to them to varying degrees. Nevertheless, they enjoyed participating in such a project. The rural villagers, however, with an assumed interdependent cultural model, were unfamiliar with almost every aspect of such a research project. Although the presence of the researcher was appreciated by most of the families because it was like a family event for them, they had a difficult time understanding why the interviewer wanted to talk only to the young mother. Sitting around and answering questions certainly represents a nuisance that interfered with the daily chores and the wishes of the mothers-in-law.

Although these critical considerations are substantial, we are convinced that our study can contribute to the understanding of cultural models of parenting. The cultural models are useful approximations to the understanding of parenting strategies. This confirms their applicability on a broader geographical scale. Our study has also demonstrated that some cultural environments fit the models better than others and that the different dimensions that we included in this study differently relate to the cultural models. Especially qualitative in-depth studies are needed to understand the individual cultural-meaning systems that lead

to this variability. Another research perspective concerns the further study of participants who fit the assumed cultural model with those who do not fit. Beliefs, ideas, and cognitions are anchored in cultural contexts (Sigel, 1985) and can be regarded as instantiations of culture (Super & Harkness, 1996). We may not have tapped all the relevant aspects with our study, but we have contributed to the unravelling of some parts of its different cultural layers.

### NOTE

1. It is important to clarify at that point that we do not refer to the dichotomous framework of individualism and collectivism but to cultural priorities of orientations that are present in any environment and are part of the individual psychology of any human being (Keller, 2003a).

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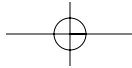
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