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METHODOLOGY OF THE JOINT EFFORT TODDLER TEMPERAMENT CONSORTIUM (JETTC)

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Participants

Researchers at all sites recruited samples of about 50 families of toddlers who were roughly between 18 and 36 months of age. A total of 865 families were recruited, although only the 853 indicating the sex of their child were included in analyses. Only one child was selected per family, and children with clinical diagnoses were excluded. For all but two countries, data were collected in a single site. In the Netherlands and the United States (US), data from two locations were combined. Our recruitment approaches necessarily differed by site, as is common with cross–cultural research (Keller, 2007), because identical techniques are not viable in all locations. At the same time, our samples can be thought of as similarly representative of communities from which they were recruited. There was some variability in demographic characteristics

among the 14 sites (Table 2.1), as a function of the samples reflecting the circumstances predominant in each country/community. Overall, families in this study represent a range of occupations, primarily reflecting mid socioeconomic status (Revised Duncan Sociometric Index, RDSI [Stevens & Featherman, 1981] M = 55.64, SD = 25.82).

US

US participants were recruited primarily in Brunswick, Maine. Brunswick is a large town located in the northeast US, near the small city of Portland. The population is primarily employed in the manufacturing, fishing, and service industries. Participants were largely Caucasian (97 percent), and were recruited through flyers placed at child-care centers, and in person by undergraduate research assistants at weekly farmer's markets and other community events.

A number of participants were additionally recruited in Pullman, Washington, a large town in a rural area of the northwestern US. Pullman is also primarily a median income community, with service, manufacturing, and farming economic opportunities. This sample was primarily Caucasian (91 percent), recruited by research assistants at a local farmer's market and through a Facebook advertisement.

A number of mothers were not working outside the home (13–20 percent), with most common occupations involving service-oriented positions.

Belgium

Belgian participants were recruited primarily in the Flemish region, occupying the northern part of the country, with an economy based largely in trade, transport, and government services. This sample was also largely Caucasian (96 percent), recruited through a Facebook advertisement, several websites for new parents, flyers dispersed by mailings to child-care centers, and in person by undergraduate research assistants at child-care centers. Mothers reported primarily sales and administrative support occupations.

Brazil

Brazilian participants were recruited in Ribeirão Preto city, located in the southeast of São Paulo State. This is a city that relies primarily on a farming economy (i.e., sugar cane plantation). Participating mothers were

TABLE 2.1 Demographic characteristics of the JETTC cultures

Culture	Child gender		Child age (in months)			Family socioeconomic status (RDSI)[1]			Marital status (in percent)[2]				Maternal education (in years)			Number of children in the household		
	F	M	Range	M	SD	Range	M	SD	Ma	Lt	Di	Si	Range	M	SD	Max	M	SD
US	49	39	17–36	25.6	5.8	10–97	50.3	26.2	92	7	1	0	9–24	17.2	2.3	1–6	1.7	1
Belgium	21	27	17–41	25.7	5.3	10–97	63.8	21.1	56	38	12	4	10–32	18.0	2.9	1–5	1.9	1
Brazil	23	28	18–38	29.4	5.6	15–96	56.9	24.2	82	12	0	6	11–37	18.3	4.9	1–3	1.4	1
Chile	21	28	17–41	27.3	7.2	10–97	49.7	28.3	62	15	2	21	12–28	18.1	4.9	1–4	1.8	1
China	30	24	19–36	26.4	4.7	15–97	58.7	29.9	87	13	0	0	8–23	15.6	3.6	1–2	1.2	1
Finland	24	31	18–40	27.6	5.7	10–97	61.6	20.8	62	30	2	6	12–26	17.7	2.6	1–4	1.5	1
Italy	24	28	17–36	26.6	4.9	15–97	61.9	20.6	77	23	0	0	11–25	17.2	3.1	1–5	1.7	1
Mexico	25	29	18–36	26.4	5.6	10–97	38.3	29.8	69	24	6	1	9–25	16.8	3.8	1–5	1.6	1
Netherlands	55	64	16–40	26.6	5.8	10–87	56.6	22.3	53	40	2	5	5–25	17.7	3.7	1–3	1.6	1
Romania	30	28	17–38	21.2	6.4	15–97	72.4	19.4	98	2	0	0	12–29	18.1	6.4	1–3	1.4	1
Russia	26	25	17–36	27.0	5.6	15–93	62.8	19.0	77	21	2	0	10–22	14.9	2.1	1–8	1.6	1
Spain	27	35	18–35	26.1	5.1	10–97	58.2	27.3	74	18	1	7	8–21	15.6	4.2	1–4	1.8	1
S. Korea	26	27	17–35	28.0	4.8	15–96	51.6	24.5	100	0	0	0	7–18	15.3	2.2	1–3	1.9	1
Turkey	25	34	16–36	27.7	5.6	10–97	50.5	26.1	92	7	1	0	9–24	14.4	3.9	1–4	1.4	1

1 RDSI: Revised Duncan Sociometric Index—an occupation based measure of social prestige, based on maternal occupations (Stevens & Featherman, 1981)

2 Ma = married, Lt = living together, Di = divorced, Si = single

predominantly Caucasian (82 percent), and parents were invited into the study through written information distributed via directors of child-care centers. A number of mothers (10 percent) did not work outside the home, with service-oriented occupations most commonly reported.

Chile

Chilean participants were recruited in Santiago, the capital. This large city in the central mountains has an economy based in industry, trade, and finance. Participants self-identified as primarily Hispanic/Latino (71 percent) or Caucasian (23 percent). Families were recruited from a private school in the context of a larger intervention effort and were connected via meeting groups and telephone. The women in this sample were frequently employed in industrial jobs, operating equipment (e.g., textile industry/sewing machine).

China

Chinese participants were recruited from 13 provinces across China, but mainly from Beijing city, resulting in an ethnically homogeneous sample. Participants were recruited via internet advertisement (official account of Wechat), and in person by research assistants during the Spring Festival holidays. A notable portion of participating mothers were not employed outside the home (22 percent), with another sizable portion working in a variety of professional positions (e.g., engineers, teachers).

Finland

Finnish participants were recruited in the Helsinki Metropolitan Area, home to a quarter of all Finns. The Helsinki economy is diversified; however, the majority of employees work in the service sector. All families in this sample were Caucasian and were recruited through day-care centers by directly contacting parents. Most common occupations were sales and administrative support-oriented.

Italy

Participants were recruited in three Italian northwest cities that are part of Lombardia: Milano, Lecco, and Como. Lombardia's economy represents a spectrum of industrial activities and services. Participants

were all Caucasian, and recruited in person by a senior researcher, made possible by collaborative relationships with several child-care centers. Italian mothers reported technical support (e.g., health technician) and sales occupations most frequently.

Mexico

Mexican participants were recruited in the Metropolitan Area of the Valley of Mexico, in the center of the country. The majority of the population engages in trade, professional, financial and corporate services, and manufacturing. Most mothers (94 percent) self-identified as Hispanic/ Latina and were recruited in person by a research coordinator at an early childhood education center in the State of Mexico. Half of the mothers were not employed outside the home, with the remainder often reporting professional occupations (e.g., physician).

The Netherlands

The first Dutch sample was recruited around the city of Amsterdam, the capital, located in the west of the country, with finance, shipping, and tourism contributing to its economy. Mothers of this sample were mostly Caucasian (96 percent), recruited through flyers distributed in child-care centers and kindergartens, and through Facebook advertisements targeting a larger portion of the Netherlands.

The second Dutch sample was recruited around the city of Nijmegen located in the mid-east of the Netherlands, with economy revolving around education, health care, and technology. Families in this sample were all Caucasian and recruited through Facebook advertisements and flyers dispersed in child-care centers and well-baby clinics.

Whereas mothers not working outside the home were more common in the Amsterdam subsample (20 percent), in the Nijmegen subsample the most common occupations were sales and administrative support-oriented in nature.

Romania

The Romanian sample was recruited in Cluj-Napoca, in the northwestern Transylvania region of the country. This is a university city, as well as a medical and educational center, with a significant industrial component. Primarily Caucasian (96 percent) participants were recruited through

flyers distributed in child-care and play centers, in-person invitations by research assistants, and written information distributed through child-care staff. Romanian mothers frequently reported professional occupations (e.g., economist).

Russia

Russian participants were recruited primarily in Novosibirsk, Russia's third largest city. Novosibirsk is considered the economic and academic capital of Siberia, whose population is primarily employed in industries, education, health services, and trade. This sample was largely Caucasian (96.2 percent), recruited in person by research assistants, and through references by current participants. Technical and administrative support, as well as sales occupations, were frequently reported in this sample.

Spain

Spanish participants were living in the Region of Murcia, near the Mediterranean Sea. Murcia's economy is mostly based in service, manufacturing, and agriculture. The Spanish sample was ethnically homogeneous, contacted through day-care centers and Psychology Faculty (University of Murcia) Facebook page. A small portion of these mothers did not work outside the home (8 percent), with a number reporting professional occupations (e.g., professor).

South Korea

Korean participants were recruited in Seoul and Gyeonggi areas in northwestern South Korea. Seoul is the capital of South Korea, and Gyeonggi Province is a region including large satellite cities south of Seoul. The main industries include trade, service, and manufacturing. All participants self-identified as Asian and were invited through written information distributed by child-care center directors. A number of mothers did not work outside the home (19 percent), with another sizable portion reporting administrative and service occupations.

Turkey

Turkish participants were recruited in and near the city of Edirne, which is located in the northwestern region of Turkey on the borders of

Greece and Bulgaria. Agriculture and civil service represent the main sources of income. The sample was ethnically homogeneous, with families recruited through advertisements in pediatric offices, and by "word of mouth" through college students and their acquaintances. Almost half (47 percent) of this sample did not work outside the home, with a number reporting technical support occupations.

Measures

Multiple constructs were measured: children's temperament and behavior problems; parents' goals for socialization and the parental ethnotheories regarding proper parenting behavior; parental responses to temperament-related behaviors; information regarding the daily routines of families and children; parental strategies regarding the challenges of child sleep and misbehavior; and demographic profiles. The majority of the utilized instruments were translated for the purposes of this study, adhering to the recommended procedures that include translation followed by back-translation and analyses of discrepancies, completed by native speakers/bilingual individuals (Peña, 2007). At all sites, the project was explained to the mothers, who were asked to complete various forms after providing informed consent.

An initial measurement challenge concerned arrival at questionnaire scales that were psychometrically sound in all countries. Prior to creating scale scores, Cronbach's alphas and item-total correlations were calculated for all scales and items for all countries. Items were then deleted one-by-one from scales to maximize the number of countries for which alpha >0.60 (considered to be a threshold for adequate internal consistency; DeVellis, 1991), and to minimize the number of items which diminished alpha for multiple countries. Because alpha is strongly determined by the number of items in a scale, and because some scales were composed of only 4 or 5 items, it was not possible to achieve alphas >0.60 for all scales in all countries. Scales for which this ideal was not met are indicated in the descriptions below. These occasional shortcomings represent a limitation, yet because poor internal consistency is a product of random, not systematic, error, it does not raise the likelihood of spurious effects, instead limiting the chance of identifying true associations.

Descriptions of the scales and their development are provided in the following paragraphs. Please see Table 2.2 for internal consistency statistics.

Early Childhood Behavior Questionnaire (ECBQ; Putnam, Gartstein, & Rothbart, 2006) was designed to assess temperament between 18 and 36

TABLE 2.2 Internal consistency of JETTC scales

Scale	Number of items	Internal consistency			
		Statistic	Country-specific range	Country-specific average	Combined dataset
ECBQ					
Negative Affectivity	77[a]	α	0.84–0.93	0.89	0.91
Surgency	48[a]	α	0.80–0.88	0.85	0.86
Effortful Control	57[a]	α	0.82–0.93	0.88	0.88
CBCL					
Internalizing	36	α	0.72–0.94	0.82	0.86
Externalizing	24	α	0.83–0.94	0.89	0.89
Total problems	99	α	0.89–0.97	0.93	0.94
Socialization goals		α			
Autonomy	4	α	0.61–0.86	0.75	0.76
Relatedness	5	α	0.54–0.81	0.72	0.73
Parental ethnotheories					
Autonomy	4	α	0.35–0.68	0.55	0.58
Relational	5	α	0.64–0.78	0.72	0.73
DAQ-leisure activities					
Low-INT toy play	4	α	0.48–0.79	0.65	0.67
High-INT toy play	4	α	0.45–0.74	0.61	0.65
Play with purpose	2	r	0.10–0.71	0.46	0.50
Engage with parent	6	α	0.48–0.73	0.63	0.67
DAQ-sleep					
Active techniques	4	α	0.42–0.79	0.61	0.65
Gentle techniques	4	α	0.47–0.68	0.54	0.60
Parent remains	2	r	0.14–0.60	0.31	0.38
DAQ-discipline					
Inductive	3[b]	α	0.46–0.73	0.61	0.61
Power assertion	4[b]	α	0.46–0.67	0.56	0.55
PRTD					
Encourage NEG	9	α	0.61–0.88	0.79	0.82
Encourage SUR	4	α	0.40–0.81	0.63	0.66
Punish low EFF	4	α	0.44–0.75	0.64	0.66
Reward high EFF	4	α	0.66–0.92	0.82	0.85

a ECBQ scales were calculated as the average of subscale scores, not item scores
b Substantive analyses of discipline used individual items. Scales used only to organize discussion

months of age. This parent-report instrument consists of 201 items, distributed over 18 scales and three factors: *Negative Affectivity* (NEG)—Discomfort, Fear, Sadness, Frustration, Motor Activation, Perceptual Sensitivity, Shyness, and Soothability, loading negatively; *Surgency* (SUR)—Impulsivity, Activity Level, High-intensity Pleasure, Sociability, and Positive Anticipation; and *Effortful Control* (EFF)–Inhibitory Control, Attention Shifting, Low-intensity Pleasure, Cuddliness, and Attention Focusing. Items are rated on a 1–7 Likert-type scale reflecting frequency. Scale scores are calculated as the average of ratings for all applicable items, and factor scores are the averages of relevant scale scores. Prior studies supported the longitudinal stability and inter-parent agreement of the measure (Putnam et al., 2006), as well as predictive validity from and to similar infant and childhood measures (Putnam, Rothbart, & Gartstein, 2008), construct validity via connections to behavior problems (Gartstein, Putnam, & Rothbart, 2012), and convergence with laboratory measures (Stepien-Nycz, Rostek, Bialecka-Pikul, & Bialek, 2017).

For 13 scales, no items were deleted for internal consistency considerations. Three items from Activity Level, two each from Attention Focusing and Impulsivity, and one each from Attention Shifting, Low-Intensity Pleasure, and Shyness were removed. Internal consistency for one scale, Impulsivity, remained below 0.60 in eight countries, but was retained in creation of the Surgency factor score to enhance comparability of our findings to those obtained in other studies.

The Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) for ages 18 months to 5 years, containing 100 items, was administered to assess behavior problems. The *Internalizing* scale consists of the sum of items measuring anxious/depressed, emotionally reactive, withdrawn, and somatic complaint behaviors, and the *Externalizing* score includes items relevant to attention problems and aggressive behavior. A total problems score is the sum of all CBCL item scores. Reliability and validity of this measure are well established, with adequate criterion-related validity, inter-rater, and test-retest reliability (Achenbach & Rescorla, 2000). This instrument has been used extensively in prior cross-cultural research (Achenbach et al., 2008). Because alphas were >0.60 in all countries, no refinement was necessary.

Socialization Goals (SG)/Parental Ethnotheories (PE; Keller et al., 2006) questionnaires provide autonomy and relational orientation indicators. Caregivers indicated their agreement to 10 statements concerning qualities a child should learn or develop in early childhood, using a five-point Likert-type scale. The five-item Autonomous *Socialization Goals* scale

includes items such as "develop self-confidence" or "develop independence," and relational socialization goals are addressed by items such as "obey elderly people" or "learn to care for the wellbeing of others." In scale refinement analyses of the *Autonomous* scale, item 3, referring to development of competitiveness, lowered alpha in eight countries and was eliminated. The resulting four–item scale generated alphas >0.60 for all 14 countries. The *Relational* scale generated alphas >0.60 for all countries but Mexico.

Parental Ethnotheories were also assessed with a list of 10 statements, this time describing opinions regarding parenting practices, also designated as Autonomous (five items) or Relational (five items). As with socialization goals, a five-point Likert-type scale is used to ascertain agreement with these statements. The Autonomous subscale includes items focusing on independence (e.g., "it is good for the child to sleep alone"). The Relational scale emphasizes body contact/proximity and prompt satisfaction of physical needs (e.g., "it is important to physically comfort a crying child with a hug or kiss in order to console him/her". In scale refinement analyses, the *Autonomous* scale demonstrated poor internal consistency, with alphas <0.60 for all 14 countries. Item 10, referring to caregivers being in constant contact with the child, lowered alpha in 12 countries and was eliminated. This led to improved internal consistency; however, internal consistency remained very poor in China, and alpha remained <0.60 in all but four countries. The *Relational* scale generated alphas >0.60 for all countries.

Daily Activities Questionnaire was designed for the purposes of this study to address leisure activities, sleeping practices, and discipline routines. This parent-report instrument includes 46 items regarding how often parents or children engage in certain behaviors, using a five-item Likert-type scale ranging from 0 = never to 5 = very often.

For leisure activities, exploratory factor analyses on the items concerning play and engagement with parents was performed upon the entire sample to derive potential scales. Analyses resulted in four factors, requiring further scale refinement. A four–item scale reflecting amount of *Play with Low-intensity Toys* (i.e., books, cuddly toys such as stuffed animals, role-playing toys such as dolls, and learning toys such as crayons) yielded alphas >0.60 in 12 of 14 countries. A four–item scale reflecting *Play with High-intensity Toys* (i.e., push or pull toys such as cars, musical toys, riding toys, and household items) demonstrated alpha >0.60 in nine countries. A two–item scale representing *Play with Purpose* (i.e., have the child engage in play with main purpose of advancing the child's

development, or to prepare child for future responsibilities). Correlations between these two items were >0.45 in 11 countries. A single item, "Have the child engage in play for the main purpose of entertaining the child" was labeled *Play for Entertainment*. The child's *Engagement with Parent* was measured with six items regarding involvement in house-work, taking the child out of the home, and playing with him/her, demonstrating alphas >0.60 in 10 countries. Two questions asked how many hours per day the child *Watched Television* and *Used a Computer* or other electronic device(s).

Questions regarding sleep included those regarding techniques used by parents to calm children and assist their sleeping, whether they woke the child, and items assessing children's sleep patterns. Regarding parental techniques, exploratory factor analyses suggested three primary factors. A four-item scale reflecting *Active Sleep Techniques* (i.e., walking while holding, walking in stroller, car ride, special play activity) generated alphas >0.60 in 9 of 14 countries. A four-item scale reflecting *Gentle Sleep Techniques* (i.e., talking softly, reading stories, cuddling, singing) performed poorly in Spain and Romania, and alphas were >0.60 in only six countries. Two items assessed whether the *Parent Remained* with the child, either staying near their bed or lying with the child. Although correlations between these items were low ($r_s < 0.25$ in six countries), they were combined due to their conceptual similarity. A single item asked whether the parent left the child *Alone to Cry*, so they could learn to soothe themselves. A single item asked whether the child *Napped* for 2 or more hours per day. Finally, the timing and *Amount of Night Sleep* was measured by asking parents what time the child went to *Bed at Night* and *Woke in the Morning*.

Seven items asked parents to indicate how frequently they used different discipline techniques in response to child misbehavior. Exploratory factor analyses suggested two factors. The first included three techniques consistent with an *Inductive Discipline* approach (ask child to repair the damage, talk the problem over, tell child to think about what they did). Alphas >0.60 for this three-item scale were observed in eight countries. A second scale reflected *Power Assertion* (shout or swear, spank or hit, withdraw privileges or separate child from others). Results indicated alphas >0.60 in only five countries. Due to relatively low alphas, and because distinctions among the strategies were expected to be meaningful (e.g., previous research suggests corporal punishment is more closely linked to child problems than are other power-assertive strategies such as withdrawing privileges), these strategies were analyzed independently.

Parental Responses to Temperament Displays (PRTD) were assessed using a questionnaire designed for this study. Items comprising the scales for Encouraging NEG and Encouraging SUR concerned behaviors reflecting these temperament factors (e.g., "When your child becomes frustrated or angry"; "When your child is playing very actively"), asking parents to rate the likelihood that they would encourage or discourage the behavior using a seven-point Likert-type scales ranging from "extremely likely" to "extremely unlikely." It was deemed improbable that parents in any culture would actively discourage EFF; yet, caregivers could encourage manifestations of regulation both by rewarding behaviors indicative of high EFF and punishing behaviors associated with low EFF. As such, items described contexts associated with EFF (e.g., "When you offer your child calm or quiet games to play"), asking the likelihood the parent would reward (e.g., "praise or give her or him a reward if they play appropriately?") or punish (e.g., "punish her or him if they do not play quietly?") to promote the behavior. Scale refinement analyses resulted in an *Encouraging NEG* scale containing nine items, for which alphas were >0.60 for all sites. The *Encouraging SUR* scale contains four items reflecting parent responses to risky and active play. Alphas were >0.60 for nine sites. The *Punishing Low EFF* and *Rewarding High EFF* scales each contained four items regarding attention shifting, attention focusing, inhibitory control, and low-intensity pleasure contexts. Alphas for Punishing Low EFF were >0.60 for nine countries. Alphas for Rewarding High EFF were >0.60 for all sites.

Cultural Orientation Scores represent country-level values for Hofstede's six dimensions (Hofstede, Hofstede, & Minkov, 2010), obtained from www.geerthofstede.nl/research--vsm on July 22, 2015. High (Individualist) scores on *Individualism/Collectivism* indicate values emphasizing concern for one's self and immediate family, with low (Collectivist) scores reflecting greater investment in the group as a whole. High scores on *Power Distance* define countries whose citizens accept imbalances of power, whereas low scores characterize societies that discourage such inequalities. High (Masculine) scores on *Masculinity/Femininity* reflect valuing competition and achievement, with low (Feminine) scores indicating a societal emphasis on caring for others and quality of life. Countries with high scores on *Uncertainty Avoidance* hold values suggesting strong discomfort regarding ambiguous situations, along with relatively rigid codes of conduct to minimize such discomfort, whereas low scores on this dimension indicate ease with uncertainty and a more flexible approach to rules. On the dimension of

Long-versus Short-Term Orientation, high (Long-Term) scores reflect thrift and perseverance, along with a willingness to adapt societal norms to achieve long-term goals, whereas low (Short-Term) scores indicate a focus on immediate results and maintenance of tradition. High scores on *Indulgence* are found in cultures in which citizens are allowed to gratify their desires and pursue enjoyment, whereas cultures with low scores on this dimension are expected to exercise restraint.

Research Goals and Data Analyses

Two broad goals are addressed through our analyses. The first is to explore cross-cultural commonalities and differences in child characteristics and aspects of the developmental niche, relating these differences to cultural orientation, rarely incorporated within developmental psychology. In Chapters 3, 4, and 6–10, we first address this goal using Analyses of Variance (ANOVA), with Bonferroni adjustments applied to subsequent pairwise comparisons; child age and sex controlled. In our previous papers, we have investigated the interaction between culture and these child variables in relation to temperament (e.g., Sung, Beijers, Gartstein, de Weerth, & Putnam, 2015), but in the interest of brevity rarely do so in the current text. In order to maintain adequate statistical power for our analyses, we did not control for demographic variables, such as income, family size, or ethnicity. These variables reflect aspects of the cultural context in the communities being studied, with relatively inconsequential contributions to cross-cultural differences in temperament and related constructs (Super et al., 2008). The cross-cultural goal is further addressed by correlating country-average scores for JETTC variables with Hofstede cultural orientation scores, enabling interpretation of distinctions among children and parents from around the world in terms of these established dimensions.

Our second goal was to examine relations within and between variables representing aspects of the developmental niche and the developing child (Chapters 5 and 11–16). Importantly, the correlational analyses used in service of this goal are organized to test both between- and within-culture relations. Between-culture relations represent paths through which cultural differences are transmitted from generation to generation. Tested by calculating correlations between the country-average scores obtained for the 14 JETTC sites, these relations enable us to determine how differences between cultures in ways parents think and act are associated with one another and with differences in typical child behaviors.

Examination of within-culture correlations between scores from individual families, and the extent to which the magnitude and direction of these correlations differ across cultures, offers the opportunity to ascertain the degree to which relations between parent and child variables are universal or culture-specific. Findings of consistent relations across all or most cultures suggest developmental processes that are largely invariant world-wide. In contrast, inconsistencies reveal distinctions in the perceptions and values ascribed to certain behaviors in parents or children in different cultures. In our final empirical chapter (17), we attempt to "bring it all together," using regression analyses to investigate the degree to which relations between broad aspects of culture and child outcomes are explained by more discrete elements of the niche. In doing so, we hope to further elucidate mechanisms through which culture shapes the developing individual.

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