Childhood

Carol R. Ember Erik J. Ringen

September 8 2017

Abstract

The long length of human childhood gives societies enormous opportunities for shaping a child. Indeed, societies vary considerably in how children are treated and cared for, how free they are to play, and how early adult skills are expected from them. We are concerned in this module with two broad questions: How and why does childhood vary across cultures? What are the consequences of variation in childrearing?

Contents

Childhood

Compared to other animals, humans take a very long time to become fully capable adults. Some North American parents, if asked today how long it takes a child to grow up, might jokingly (or maybe not so jokingly), give an answer of 25-30 years. But the length of childhood varies considerably across cultures and even within cultures the effective period of childhood can shorten or lengthen by social group or over historical time periods. So in present-day North America, post-secondary education is often perceived as a prerequisite for later success in life, whereas in earlier time periods, this amount of education was far less important and children could manage on their own at earlier ages.

As a species, humans have a very different life history trajectory compared with other mammals and with other primates. First, human babies are born relatively helpless and remain so for a longer time period. Second, the length of time to sexual maturity is quite long. Finally, whereas in many animals death occurs not too long after the ability to reproduce ceases, human females live considerably longer than their age of menopause. Understanding these developments is complex (see Konner 2010 for a lengthy discussion), but there is broad consensus that selection for larger brains over the course of human evolution was of paramount importance for producing these life history features. For it is in this long childhood that children have the luxury of being able to explore, experiment, play, observe, and "soak up" knowledge. Hawcroft and

Dennell (2000; citing Pinker 2003) remark that children are like "mental sponges," seemingly craving understanding. Consider that without formal training children are fantastic at learning complex language and the world over do so with seeming ease around two years of age. Yet later in life adults have much more trouble learning a new language.

All human societies work with this basic developmental template. The bottom line is that it is rarely possible for a human mother to successfully rear a child without any help from others. But the details and dynamics of child rearing is strongly influenced by cultural ideas and practices. Some of the important dimensions of variation are: How much does the mother do for the child directly? To what degree does the father help? How much do nonparents help? Where does the infant/child sleep? How long is a child breastfed? How much attention and affection is shown to children? How much freedom is given to children to play, explore, or create, or are they expected to do considerable work and undergo formal training? How differentiated are the lives of female and male children? What techniques do parents use to rear their children? What are the important values that parents try to instill?

While there is a massive body of research featuring children in industrialized Western nations and a number of child-focused studies in individual small-scale societies, our discussion here is generally restricted to worldwide cross-cultural studies featuring 10 or more cultures; unless otherwise noted, most of this research has been conducted on samples of nonindustrial societies. And for this module we concentrate largely from birth up to adolescence. We are concerned with the broad questions: How and why does childhood vary across cultures? What are the consequences of variation in childrearing? *eHRAF World Cultures* is full of ethnographic examples.

Caretakers of Children

As we mentioned above, it is rare that a mother alone, without help from family, friends, or paid workers, can successfully rear a child. To be sure, in the world today there are many single-parent households, so it is obvious that while help from others is essential, two parent families are not. However, for most of human history, marriage between a woman and a man was the norm and fathers contributed to some degree with resources or direct child care.

Mothers

In the nonindustrial world breastfeeding was absolutely essential for the survival of a baby. It was only relatively recently in human history that alternatives to mother's milk (e.g., cow's milk, manufactured infant formulas) became widely substituted. High income countries today are the least likely to exclusively breastfeed infants and even in middle and low income countries only 37 percent of children are exclusively breastfed for 6 months. And yet, accumulating medical

evidence suggests that breastfeeding provides significant advantages to infants. For infants breastfeeding provides substantial increases in survival rates, fewer episodes of diarrhea and respiratory infections, and fewer admissions to hospitals (Victora et al. 2016). Given the adaptive importance of breastfeeding and the necessity for the infant to be near the mother when breastfeeding, it is not surprising that mothers are the main caretakers of infants.

- Mothers are the principal or exclusive caretakers of infants in most societies (Barry and Paxson 1971; cited in Weisner and Gallimore 1977).
- The death of a mother has a large negative effect on child survival rates, particularly if the mother dies very early in the child's life (Sear and Mace 2008).

However, cross-cultural research has also revealed substantial variation in mothering around the world in the degree of contact and the kind of contact:

- Mothers hold or carry infants for more than half the day in most societies; almost all hunter-gatherer mothers customarily do so. In contrast, in the United States contact is about 25% of the time (Lozoff 1983).
- In colder climates, mothers tend to carry infants using devices such as cradleboards or cradles, while in warmer climates infants are most often carried in the arms or in slings (J. W. M. Whiting 1981).

  Why? J. W. M. Whiting (1981) suggests that when it is very cold it is adaptive to bundle up an infant in its own bedding to help maintain its body temperature, but when it is warm, coverings (if any), need to be minimal or lightweight.

We tend to think of "mothering" as automatically warm and affectionate, but in fact the degree of warmth expressed by mothers towards children varies with social circumstances.

- Mothers who are unable to escape continuous interaction with their children are less warm and affectionate towards their children. (Rohner 1975). This is consistent with data from the smaller-scale Six Cultures study (Minturn and Lambert 1964, 260)

  Why? Rohner (1975) pp. 113 suggests that mothers left alone with children all day become quite frustrated without relief from their childcare duties. Consistent with this, societies with mother-child households (usually polygynous) are less warm and affectionate.

Nursing and Weaning

Until recently, breastfeeding was a universal feature of infancy/early childhood. Allomaternal nursing (at least some breastfeeding by women other than the birth mother), while relatively rare in contemporary industrialized nations, has been frequently observed cross-culturally.

Figure 1: Navajo woman carrying child in a cradleboard. Cradleboards may be carried on the mother's body as shown in this photo, but they may also be hung up in a tree or in the wall of a house. Credit: Denver Public Library, license-free.

- The average age of weaning in nonindustrial societies is more than 2 years of age, and weaning tends to be gentle rather than abrupt (our summary from Barry and Paxson 1971).
- Mothers in agriculturalist and pastoralist societies sometimes wean their infants earlier than hunter-gatherers, but the average age of weaning is similar across subsistence types (Sellen and Smay 2001).
- Non-milk foods are most commonly introduced by six months of age or earlier (our summary from Barry and Paxson 1971).
- Mothers who introduce non-milk foods to their infant's diet before the age of one month are more active participants in subsistence activities than women who introduce non-milk foods later than one month (Nerlove 1974).

Figure 2: Parents and children co-sleeping. Credit: Barbora Bálková, CC BY-SA 3.0.

Co-sleeping

Co-sleeping is the practice of children sleeping close to their mothers and/or both parents. While the term generally refers specifically to infant co-sleeping, older children and adolescents also have been observed sleeping with or near their parents across cultures (Hewlett and Roulette 2014). Though research is scant, cross-cultural studies have found:

- The most common sleeping arrangement features mother-infant co-sleeping; fathers often sleep apart from the mother and child (J. W. M. Whiting 1964). In general, parent-infant co-sleeping (that is, with at least one parent) is a near-universal among nonindustrial societies (our summary from Barry and Paxson 1971).
- Exclusive mother-infant sleeping arrangements are more common in warmer climates (J. W. M. Whiting 1964).

  Why? J. W. M. Whiting (1964) suggests this has to do with temperature. When it is cold, parents tend to sleep together, perhaps helping to keep warm, but sleep apart when it is hot.

Fathers

Paternal relationships vary considerably across cultures in degree of closeness and involvement in child-rearing. Here a distinction is made between direct child-care (e.g., carrying, feeding, and grooming) and more general father-involvement, which includes indirect care such as paternal contribution to household resources. Cross-cultural studies indicate that:

- Direct child-care by fathers is lowest among farming and pastoral cultures and highest among hunter-gatherers, with horticulturalists and fathers from industrialized nations falling somewhere in between (Marlowe 2000; summarized in Hewlett and Macfarlan 2010).
- Fathers are not allowed to attend the birth of their children in more than half of small-scale societies (Hewlett and Macfarlan 2010; Broude and Greene 1983).
- Father involvement (but not necessarily direct child-care) is greater in societies with:
  - a lack of material accumulation (Goody and Tambiah 1973; Hewlett 1988; Marlowe 2000)
  - low population density (Alcorta 1982)
  - infrequent warfare and infrequently polygyny (Katz and Konner 1981).
  - matrilocal postmarital residence (Hewlett 1988).
  - spousal gender equality in economic, domestic, and leisure activities (Hewlett 1992).

Figure 3: Father and child in Bangladesh. Credit: Steve Evans, CC BY 2.0.

The nature of father-child relationships may also be diagnostic of gender equality in small-scale societies: in societies with close father-child relationships, women are more likely to occupy community decision-making roles than societies with distant father-child relationships (Coltrane 1988).

Alloparents

An alloparent is any individual, other than a parent, who helps take care of a child. After infancy, individuals other than mothers or fathers make large contributions to child care:

- Allomaternal nursing occurs in nearly all nonindustrial cultures, but usually only in exceptional circumstances such as maternal death or illness (Hewlett and Winn 2014).
  - There are some societies where a woman who breastfeeds a child takes on the status of "milk kin" and the woman and her family may be referred to as kin by the child when she/he grows up, but this practice is not that common (Hewlett and Winn 2014).
- By early childhood, mothers typically provide less than half of child care (Barry and Paxson 1971).
- During infancy, alloparents are more likely to be female than male. (Weisner and Gallimore 1977).
- During early childhood, alloparents or principal companions are most likely to be the child's peer group or older children of either gender. (Weisner and Gallimore 1977).
- Hunter-gatherers engage in more alloparenting than farmers and pastoralists (Hewlett and Macfarlan 2010).

Grandparents and Siblings

While there is a dearth of worldwide cross-cultural studies on grandparent-grandchild relations, previous findings indicate that grandparents may occupy a unique and important role in children's lives. The long post-reproductive lives of human females constitutes a major area of inquiry for evolutionary scholars, with one body of theory asserting that increased human longevity relative to other primates evolved as a means of continuing investment in existing offspring. This premise is often referred to as the "grandmother hypothesis" (Peccei 2000).

- Grandparental warmth, closeness, and indulgence—what Radcliffe-Brown (1952) called "friendly equality"—was found to be normative in a majority of societies (Apple 1956).
- Where grandparents make significant contributions to child-rearing, children tend to be treated with greater warmth and affection (Rohner 1975).

Figure 4: Grandparent and grandchild. Credit: Sasin Tipchai, Pixabay license.

- The presence of grandmothers in general increases child survival rate (Sear and Mace 2008; Strassmann and Garrard 2011).

Siblings are also important caretakers in many societies.

- In a majority of societies six to ten year old girls contribute more than rarely to childcare (in 33% they contribute substantially); in most societies boys rarely contribute to childcare, but in some contribute substantially (10%) (summarized from data in Ember and Cunnar 2015).
- First-born children tend to receive special privileges and responsibilities such as more elaborate birth ceremonies, more duties to perform, and more authority over (and more respect from) younger siblings (Rosenblatt and Skoogberg 1974).
- The presence of older siblings seems to have a positive effect on child survival (Sear and Mace 2008).

Slings and Arrows: Infant and Child Mortality

Only in contemporary developed countries has infant and child mortality been 1% or lower (Human Mortaility Database n.d.; cited in Volk and Atkinson 2008)—a triumph of public health advances such as sanitation (Stearns 2006; cited in

Volk and Atkinson 2008). Throughout human history, though, many (or even most) children died before reaching adulthood:

- Infant and child mortality in small-scales societies have ranged from 21 – 67% (Hewlett 1991; Gurven and Kaplan 2007).
- Infant and child mortality in contemporary developing nations is also high relative to developed nations (You, New, and Wardlaw 2013), though generally lower than estimated rates in small-scale societies.

Figure 5: Boy and girl sitting. Credit: Uriel Shuraki, Pixabay license.

Childhood Socialization

Gender Differences

Many social scientists have concerned themselves with the onset of gender differences, i.e., when and how children acquire the gender roles prescribed by their societies. Cross-cultural studies of child socialization, child's work, and gender differences have revealed:

- Gender differentiation is minimal during infancy (Barry, Bacon, and Child 1957)
- Large gender differences in child training are more likely to be found when (Barry, Bacon, and Child 1957):

  - large game are hunted
  - grain (as opposed to root) crops are grown
  - large and/or dairying animals are kept
  - fishing is minimal
  - residence is nomadic
  - marriage is polygynous

- There is a universal preference for same-gender companions in early childhood and avoidance of opposite-gender peers in middle childhood (B. Blyth. Whiting and Edwards 1988).
- In early childhood, there is widespread pressure towards nurturance, obedience, and responsibility for girls and conversely there is pressure towards self-reliance and achievement striving for boys (Barry, Bacon, and Child 1957).
- Female children are expected to do more work than male children, regardless of subsistence economy (Ember and Cunnar 2015).
- Female children are expected to provide more childcare than males (except among pastoralists, where there was no observed difference) (Ember and Cunnar 2015).
- The autonomy of female children is most restricted where gender-differences are emphasized in early childhood and onward (B. Blyth. Whiting and Edwards 1988).

Subsistence and Economy

- Children typically engage in the same type of work and subsistence activities as do adults of their own gender. When there are exceptions to this pattern, male children tend to do the work of adult women, rather than female children doing the work of adult men (Bradley 1993).
- Where large amounts of food production labor must be accomplished quickly, children tend to experience greater socialization for cooperation (Poggie 1995).
- Hunter-gatherers exhibit relatively greater warmth and affection towards their children, while pastoralists exhibit relatively less (Rohner 1975).
- Agriculturalists and pastoralists tend to emphasize responsibility and obedience in child-training, whereas hunter-gatherers tend to emphasize achievement, self-reliance, and independence.

  Why? Barry, Child, and Bacon (1959) theorize that the more food is accumulated (as in the case of agriculturalists and herders), the more vulnerable the food supply is to deviations from standard practices. Hence, societies

with high food accumulation should emphasize compliance with adults and normative practices. In contrast, societies with low accumulation (such as hunter-gatherers) are less vulnerable and may benefit from innovation in subsistence practices (i.e., attempting new hunting/fishing techniques). A reanalysis by Hendrix (1985) supported the general conclusions of Barry, Child, and Bacon (1959), but criticized the original study's measures and challenged the robustness of their conclusions.

Figure 6: Cartoon of students receiving the cane. Credit: State Library of Queensland, license-free.

Punishment

Corporal punishment of children is common in the United States and other nations around the world. Cross-cultural studies of corporal punishment indicate:

- Evidence for normative corporal punishment in about 40% of societies (Ember and Ember 2005).
- More complex societies generally have more corporal punishment (Ember and Ember 2005; Levinson 1989; Petersen, Lee, and Ellis 1982; Rohner 1986).
- Societies employing non-relative caretakers have the highest rates of corporal punishment, and societies in which parents are the exclusive caretakers have the lowest rates (Ember and Ember 2005).
- Children living in extended-family households experience the lowest levels of corporal punishment, while those living in mother-child households experience the highest (Levinson 1989).
- Societies with greater corporal punishment place greater emphasis on conformity, while societies with less corporal punishment place greater emphasis on self-reliance (Petersen, Lee, and Ellis 1982).

Variation in corporal punishment has been a focal issue for many cross-cultural researchers and developmental psychologists who assert that violent punishment during childhood begets violent or antisocial behavior later in life (see Consequences of Variation below).

Behavior and Activities

Aggression and Cooperation

- Male children tend to exhibit more aggression than female children (Rohner 1976; B. Blyth. Whiting and Edwards 1988). Male children also exhibit more dominance over others (B. Blyth. Whiting and Edwards 1988).

  Since differences in aggressive behavior are widespread and appear by about age three, many scholars assume that the differences in aggression must have a biological basis. A considerable amount of research suggests that androgen may be implicated in the course of fetal development. However, it is very difficult to entangle the possible biological and socialization effects on aggression differences since parents treat males and females differently from birth and almost always have different expectations and gender roles (e.g., males are often expected to be warriors.) Cross-culturally, while child training practices do seem to exert an influence on the development of gender differences in aggression (Rohner 1976), variation in child training alone does not seem to explain the magnitude and cross-cultural consistency of gender differences. But, ethnographers focus on only the most perceptible

differences in socialization and more subtle differences in the ways that boys and girls are socialized tend not be observed. Subtle differences include keeping girls more in and around the home and assigning them babysitting chores (for further discussion see Ember, Ember, and Peregrine 2015: 406-409)

- Degree of aggression among one gender closely follows that of the other (i.e., in societies where girls are very aggressive, boys will also exhibit aggression heightened aggression, relative to other societies) (Rohner 1976).
- While children in general become more cooperative as they get older, female children are typically more cooperative and compliant to their mother's commands than male children (B. Blyth. Whiting and Edwards 1988).
- Girls are less reluctant to assume caretaking roles and take a more prosocial style to dominating younger children than boys (B. Blyth. Whiting and Edwards 1988). (We noted above that girls actually do more caretaking than boys.)

Figure 7: Boy herding goats. Credit: L. Rose, license-free.

Child's Work

While children typically make little or no direct economic contributions to their households in developed industrial nations, cross-cultural research suggests that this pattern is not typical for nonindustrial cultures, where children often make significant labor contributions.

- While children's work generally mirrors adult tasks, there are some activities that are primarily performed by children, such as herding and crop supervision (Bradley 1993; Ember and Cunnar 2015).
- Children are valued more highly in cultures where they assist in important subsistence tasks (Bradley 1984).
- Across subsistence types, hunter-gatherer children perform the least amount of work and agricultural/pastoral children perform the greatest amount of work (Ember and Cunnar 2015).

"Play is the work of childhood"

—*Jean Piaget*

Child's Play

Children play in all known societies, and many authors argue that play behavior constitutes an important form of learning and development (Ember and Cunnar 2015; Konner 2010).

- In most small-scale societies children rarely play with mothers and very seldom play with fathers; exceptional societies where parents engage in play with children tend to be relatively egalitarian foraging peoples (Lancy 2007).
- Both boys and girls frequently engage in imitation "grown-up" play and non-imitation "imaginary play", and play involving physical games and weapon sports was more frequently observed among male children (Ember and Cunnar 2015).

Games and sport appear to be human universals, and cross-cultural research indicates that variations in games are related to variation in child-training (see the *EHC Games and Sports module* for more).

Consequences of Variation

Preceding sections considered both universal patterns and cross-cultural variation in childhood. Here we address the impact of child-rearing practices beyond childhood.

Figure 8: Children playing soccer (football). Credit: Sasin Tipchai, Pixabay license.

- Societies with higher degrees of parental involvement exhibit less acceptance of extramarital sex, lower homicide, assault, and theft rates, and lower importance of witchcraft (Quinlan and Quinlan 2007).
- Adults who were treated warmly and affectionately as children are more generous and responsible than those who were not. Children who received little warmth and affection tend to be less independent, emotionally stable and emotionally responsive as adults, and often have a negative world view (Rohner 1975).
- When male children closely identify with their mothers during early childhood, and when father-child sleeping distance is greater, they will exhibit greater aggression/violence later in life (Ember and Ember 2002).
- Lack of paternal (but not maternal) warmth predicts later interpersonal aggression (Veneziano 2003).
- Violent child socialization practices such as corporal punishment often co-occur with wife beating (Levinson 1981).

What We Do Not Know

- How does a mother's workload affect patterns of child-rearing, such as use of alternative caretakers?

- How do customs of marriage arrangement (e.g., romantic love, arranged marriage, marrying "enemies") affect the degree to which both parents are involved in child-rearing or make joint decisions?
- When male children do sibling caretaking, are fathers more involved as adults?
- What kinds of societies have more childcare by nonparents?
- Do societies with more food and labor sharing teach sharing to children? If so, at what ages are these values emphasized?
- Do grandmothers have a greater effect on child survival than grandfathers? Do maternal grandparents have a greater effect on child survival than paternal grandparents? Previous studies of the effect of grandparents on infant and child mortality present contradictory results (Sear and Mace 2008; Strassmann and Garrard 2011).
- How widespread is co-sleeping beyond infancy among nonindustrial societies? A study of two ethnic groups in the Central African Republic found that co-sleeping was normative until 7 years of age, but worldwide comparative evidence is lacking (Hewlett and Roulette 2014).
- What predicts the greater use of verbal punishment towards children (such as threats, insults, scolding)? Is it related to corporal punishment?
- Are female and male children customarily punished differently? If so, what are the consequences of gender differences in punishment?

Exercises Using eHRAF World Cultures

Explore some texts and do some comparisons using the eHRAF World Cultures database. These exercises can be done individually or as part of classroom assignments. See the Teaching eHRAF Exercise on Childhood for suggestions.

Photo Credits

- Smiling children. 2013. Photograph by Kiran Hania, distributed under a Pixabay license. https://pixabay.com/images/id-82272/
- Navajo woman with child. 1880-1910. Held by Denver Public Library, public domain. https://commons.wikimedia.org/wiki/File:Navajo_woman_%26_child.jpg
- Parents and children co-sleeping. 2006. Photograph by Barbora Bálková, distributed under a CC BY-SA 3.0 license. https://commons.wikimedia.org/wiki/File:Barbora_Balkova_E
- Father and child, Dhaka. 2005. Photograph by Steve Evans, distributed under a CC BY 2.0 license. https://commons.wikimedia.org/wiki/File:Father_and_child,_Dhaka.jpg

- Grandmother and grandchild. 2016. Photograph by Sasin Tipchai, distributed under a Pixabay license. https://pixabay.com/images/id-1807515/
- Boy and girl sitting. 2013. Photograph by Uriel Shuraki, distributed under a Pixabay license. https://pixabay.com/images/id-105523/
- Cartoon of students receiving the cane. 1888. Held by the State Library of Queensland, public domain. https://collections.slq.qld.gov.au/viewer/IE2814271
- Boy herding goats. n.d. Photograph by L. Rose, held by USAID, public domain. https://commons.wikimedia.org/wiki/File:Animal_husbandry_in_Congo.jpg
- Children playing soccer. 2016. Photograph by Sasin Tipchai, distributed under a Pixabay license. https://pixabay.com/photos/football-children-sports-ball-boys-1807520/

Citation

The summary should be cited as:

Carol R. Ember and Erik J. Ringen. 2017. "Childhood" in C. R. Ember, ed. *Explaining Human Culture*. Human Relations Area Files, https://hraf.yale.edu/ehc/summaries/childhood, accessed [give date].

Glossary

Alloparenting Individuals other than parents acting in a parental role

Matrilocal residence A pattern of marital residence where couples typically live with or near the wife's parents

References

Alcorta, Candace Storey. 1982. "Paternal Behavior and Group Competition." *Behavior Science Research* 17 (1-2): 3–23.

Apple, Dorrian. 1956. "The Social Structure of Grandparenthood." *American Anthropologist* 58 (4): 656–63. https://doi.org/10.1525/aa.1956.58.4.02a00060.

Barry, Herbert, III, Margaret K. Bacon, and Irvin L. Child. 1957. "A Cross Cultural Survey of Some Sex Differences in Socialization." *Journal of Abnormal and Social Psychology* 55 (3): 327–32. https://doi.org/10.1037/h0041178.

Barry, Herbert, III, Irvin L. Child, and Margaret K. Bacon. 1959. "Relation of Child Training to Subsistence Economy." *American Anthropologist* 61 (1): 51–63. https://doi.org/10.1525/aa.1959.61.1.02a00080.

Barry, Herbert, III, and Leonora M. Paxson. 1971. "Infancy and Early Childhood: Cross-Cultural Codes 2." *Ethnology* 10 (4): 466–508. https://doi.org/10.2307/3773177.

Bradley, Candice. 1984. "The Sexual Division of Labor and the Value of Children." *Behavior Science Research* 19 (1-4): 159–85. https://doi.org/10.1177/106939718401900106.

———. 1993. "Women's Power, Children's Labor." *Cross-cultural Research* 27 (1-2): 70–96. https://doi.org/10.1177/106939719302700104.

Broude, Gwen J., and Sarah J. Greene. 1983. "Cross-Cultural Codes on Husband-Wife Relationships." *Ethnology* 22 (3): 263–80. https://doi.org/10.2307/3773467.

Coltrane, Scott. 1988. "Father-child Relationships and the Status of Women: A Cross-cultural Study." *The American Journal of Sociology* 93 (5): 1060–95. https://doi.org/10.1086/228864.

Ember, Carol R., and Christiane M. Cunnar. 2015. "Children's Play and Work: The Relevance of Cross-cultural Ethnographic Research for Archaeologists." *Childhood in the Past: An International Journal* 8 (2): 87–103. https://doi.org/10.1179/1758571615Z.00000000031.

Ember, Carol R., and Melvin Ember. 2002. "Father Absence and Male Aggression: A Re-examination of the Comparative Evidence." *Ethos* 29 (3): 296–314. https://doi.org/10.1525/eth.2001.29.3.296.

———. 2005. "Explaining Corporal Punishment of Children: A Cross-cultural Study." *American Anthropologist* 107 (4): 609–19. https://doi.org/10.1525/aa.2005.107.4.609.

Ember, Carol R., Melvin Ember, and Peter N. Peregrine. 2015. *Anthropology*. 14th ed. Boston: Pearson.

Goody, Jack., and Stanley Jeyaraja Tambiah. 1973. *Bridewealth and Dowry*. Cambridge Papers in Social Anthropology, No. 7. Cambridge [Eng.]: University Press.

Gurven, Michael, and Hillard Kaplan. 2007. "Longevity Among Hunter- Gatherers: A Cross-Cultural Examination." *Population and Development Review* 33 (2): 321–65. https://doi.org/10.1111/j.1728-4457.2007.00171.x.

Hawcroft, Jennie, and Robin Dennell. 2000. "Neanderthal cognitive life history and its implications for material culture." In *Children and Material Culture*, edited by Joanna S. Derevenski, 89–99. London: Routledge.

Hendrix, Lewellyn. 1985. "Economy and Child Training Reexamined." *Ethos* 13 (3): 246–61. https://doi.org/10.1525/eth.1985.13.3.02a00030.

Hewlett, Barry S. 1988. "Dad and Cad Strategies: Father's Role in Human Evolution." Presented at the Evolution and Human Behavior Program, University of Michigan, Ann Arbor.

———. 1991. "Demography and Childcare in Preindustrial Societies." *Journal of Anthropological Research* 47 (1): 1–37. https://doi.org/10.1086/jar.47.1.3630579.

———, ed. 1992. *Father-Child Relations: Cultural and Biosocial Contexts*. New York: Aldine De Gruyter.

Hewlett, Barry S., and Shane J. Macfarlan. 2010. "Fathers' Roles in Hunter-gatherer and Other Small-scale Cultures." In *The Role of the Father in Child Development*, edited by Michael E. Lamb, 413–34. Hoboken, NJ: John Wiley & Sons, Inc.

Hewlett, Barry S., and Jennifer W. Roulette. 2014. "Cosleeping beyond infancy." In *Ancestral landscapes in human evolution*, edited by Darcia Narvaez, Kristin Valentino, Agustin Fuentes, and Peter Gray, 129–63. Oxford: Oxford University Press.

Hewlett, Barry S., and Steve Winn. 2014. "Allomaternal Nursing in Humans," Current Anthropology, 55 (2): 200–229. https://doi.org/10.1086/675657.

Katz, Mary Maxwell, and Melvin J. Konner. 1981. "The Role of the Father: An Anthropological Perspective." In *The Role of the Father in Child Development*, edited by Michael E. Lamb, 155–85. New York, NY: John Wiley & Sons.

Konner, Melvin J. 2010. *Evolution of Childhood: Relationships, Emotion, Mind*. Cambridge, Mass: Belknap Press of Harvard University Press.

Lancy, David F. 2007. "Accounting for Variability in Mother–Child Play." *American Anthropologist* 109 (2): 273–84. https://doi.org/10.1525/aa.2007.109.2.273.

Levinson, David. 1981. "Physical Punishment of Children and Wifebeating in Cross-cultural Perspective." *Child Abuse and Neglect* 5 (2): 193–95. https://doi.org/10.1016/0145-2134(81)90040-5.

———. 1989. *Family Violence in Cross-Cultural Perspective. Frontiers of Anthropology ; v. 1*. Newbury Park, Calif: Sage Publications.

Lozoff, Betsy. 1983. "Birth and 'bonding' in Non-industrial Societies." *Developmental Medicine & Child Neurology* 25 (2): 595–600. https://doi.org/10.1111/j.1469-8749.1983.tb13817.x.

Marlowe, Frank W. 2000. "Paternal Investment and the Human Mating System." *Behavioural Processes* 51 (1): 45–61. https://doi.org/10.1016/S0376-6357(00)00118-2.

Minturn, Leigh, and William W. Lambert. 1964. *Mothers of six cultures: antecedents of child rearing*. New York: John Wiley & Sons.

Nerlove, Sara. 1974. "Woman's Workload and Infant Feeding Practices: A Relationship with Demographic Implications." *Ethnology* 13 (2): 207–14. https://doi.org/10.2307/3773113.

Peccei, Jocelyn Scott. 2000. "A Critique of the Grandmother Hypotheses: Old and New." *American Journal of Human Biology* 13 (4): 434–52. https://doi.org/10.1002/ajhb.1076.

Petersen, Larry R., Gary R. Lee, and Godfrey J. Ellis. 1982. "Social Structure, Socialization Values, and Disciplinary Techniques: A Cross-cultural Analysis." *Journal of Marriage and Family* 44 (1): 131–42. https://doi.org/10.2307/351268.

Pinker, Steven. 2003. *The Language Instinct: How the Mind Creates Language*. Penguin.

Poggie, John J., Jr. 1995. "Food Resource Periodicity and Cooperation Values: A Cross-cultural Consideration." *Cross-cultural Research* 29 (3): 276–96. https://doi.org/10.1177/106939719502900303.

Quinlan, Robert J., and Marsha B. Quinlan. 2007. "Parenting and Cultures of Risk: A Comparative Analysis of Infidelity, Aggression, and Witchcraft." *American Anthropologist* 109 (1): 164–79. https://doi.org/10.1525/aa.2007.109.1.164.

Radcliffe-Brown, Alfred R. 1952. *Structure and Function in Primitive Society, Essays and Addresses*. London: Cohen & West.

Rohner, Ronald P. 1975. "They Love Me, They Love Me Not: A Worldwide Study of the Effects of Parental Acceptance and Rejection." New Haven, Ct: HRAF Press.

———. 1976. "Sex Differences in Aggression: Phylogenetic and Enculturation Perspectives." *Ethos* 4 (1): 57–72. https://doi.org/10.1525/eth.1976.4.1.02a00030.

———. 1986. *Warmth Dimension: Foundations of Parental Acceptance-Rejection Theory. New Perspectives on Family*. Beverly Hills [Calif.]: Sage Publications.

Rosenblatt, Paul C., and Elizabeth L. Skoogberg. 1974. "Birth Order in Cross-cultural Perspective." *Developmental Psychology* 10 (1): 48–54. https://doi.org/10.1037/h0035566.

Sear, Rebecca, and Ruth Mace. 2008. "Who Keeps Children Alive? a Review of the Effects of Kin on Child Survival." *Evolution and Human Behavior* 29 (1): 1–18. https://doi.org/10.1016/j.evolhumbehav.2007.10.001.

Sellen, Daniel W, and Diana B Smay. 2001. "Relationship Between Subsistence and Age at Weaning in 'Preindustrial' Societies." *Human Nature* 12 (1): 47–87.

Stearns, Peter N. 2006. *Childhood in World History. Themes in World History*. New York: Routledge.

Strassmann, Beverly I, and Wendy M Garrard. 2011. "Alternatives to the Grandmother Hypothesis." *Human Nature*, Human Nature, 22 (1-2): 201.

University of California, Berkeley (USA), and Max Planck Institute for Demographic Research (Germany). n.d. Human Mortality Database. Accessed June 16, 2008. http://www.mortality.org/.

Veneziano, Robert A. 2003. "The Importance of Paternal Warmth." *Cross-cultural Research* 37 (3): 265–81. https://doi.org/10.1177/1069397103253710.

Victora, Cesar G, Rajiv Bahl, Aluísio J D Barros, Giovanny V A França, Susan Horton, Julia Krasevec, Simon Murch, Mari Jeeva Sankar, Neff Walker, and Nigel C Rollins. 2016. "Breastfeeding in the 21st Century: Epidemiology, Mechanisms, and Lifelong Effect." *The Lancet* 387 (10017): 475–90. https://doi.org/10.1016/S0140-6736(15)01024-7.

Volk, Tony, and Jeremy Atkinson. 2008. "Is Child Death the Crucible of Human Evolution?" *Journal of Social, Eveolutionary, and Culutral Psychology* 2 (4): 247–60. https://doi.org/10.1037/h0099341.

Weisner, Thomas S., and Ronald Gallimore. 1977. "My Brother's Keeper: Child and Sibling Caretaking [and Comments and Reply]." *Current Anthropology* 18 (2): 169–90. https://doi.org/10.1086/201883.

Whiting, Beatrice Blyth., and Carolyn P. Edwards. 1988. *Children of Different Worlds: The Formation of Social Behavior*. Cambridge, Mass: Harvard University Press.

Whiting, John W.M. 1964. "Effects of Climate on Certain Cultural Practices." In *Explorations in Cultural Anthropology: Essays in Honor of George Peter Murdock*, edited by Ward H. Goodenough, 511–44. New York: McGraw-Hill.

———. 1981. "Environmental Constraints on Infant Care Practices." In *Handbook*

of Cross-cultural Human Development, edited by Ruth H. Munroe, Robert L. Munroe, and Beatrice Blyth Whiting, 155–79. New York & London: Garland STPM Press.

You, Danzhen, JR New, and Tessa Wardlaw. 2013. "Levels and Trends in Child Mortality. Report 2013. Estimates Developed by the UN Inter-Agency Group for Child Mortality Estimation." New York NY United Nations Childrens Fund [UNICEF] 2013.