

In the Arms of Our Ancestors

The Universal Social Phenomenon of Human Child Care



LUNDS
UNIVERSITET

Viktoría Skou

Abstract

Care is a fundamental need to all human children, in all cultures and through all of human existence. While child care is universal, its practices are cultural-specific. Inspired by this cultural differentiation, this study explores the universal social phenomenon of human child care in an evolutionary, historical and cultural perspective in a theoretical framework of feminist anthropology and the theory of care ethics. We found that human child care in prehistoric time has been formed by infant-carrying, frequent breastfeeding and cooperative breeding, a result congruent with observations of child care practices in present-day hunter-gatherer societies organised similar to prehistoric societies. Child care recommendations from the Western industrialisation showed a remarkably different practice of child care and that the societal changes following the industrialisation, specifically the geographical organisation of families and organisation of labour to a high degree affected child care practices. We found that child care practices are shaped in adaption to society and by applying the feminist concept of the dichotomy of nature and culture we found that the different cultural approaches to child care practices can be understood as congruent with a greater or lesser opposition between the categories of 'nature' and 'culture' in a society.

Key words: child care, evolution, cross-cultural research, feminism, care ethics

Word count: 14,394

Table of Content

1	Introduction	2
1.1	Objective and research question.....	3
1.2	Previous Research on Children in Anthropology.....	4
1.3	Theoretical Framework.....	6
1.4	Method	9
1.5	Disposition of the thesis.....	13
2	The Evolution and Biology of Human Child Care.....	14
2.1	A Short Introduction to Human Evolution.....	14
2.2	The Dependent Baby	14
2.3	Evolutionary Predispositions.....	16
2.4	Infant Carrying and Development of Tools	17
2.5	Cooperative Breeding and Allocares.....	18
2.6	Human Evolution.....	20
2.7	Human Child Care in Prehistoric Time	22
3	Child Care in Contemporary Hunter-Gatherer Societies	23
3.1	The Aka People	23
3.2	The !Kung San People	26
3.3	Other Hunter-Gatherer Societies	28
3.4	Child Care in Hunter-Gatherer Life.....	30
4	Cultural Differences in Child Care Practices	33
4.1	Western industrialisation and child care experts.....	33
4.2	How culture and society affect practices of child care	35
4.3	'Nature' and 'Culture' of child care.....	38
4.4	Western bias in child care studies	40
5	Conclusion.....	42
6	References	44

1 Introduction

All human children need care. Whether scarce or abundant, some amount of caregiving is necessary for survival. Practices of child care exist in all cultures, any place in the world, and through all time of human existence. As human babies are born completely dependent and cannot survive without care provided by an older human (Small, 1998:6), child care can be understood as a universal social phenomenon among humans. This study will explore the universal social phenomenon of human child care in an evolutionary, historical and cultural perspective and discuss child care practices in different societies in the perspective of feminist anthropology and the theory of care ethics.

While children are raised in many different ways throughout cultures of the world, the greatest difference lies between the wealthy, industrialised countries in the West (meaning Europe and North America), and the rest of the world. As David F. Lancy (2015:2) notes, much research is centred around Western industrialised countries as some kind of norm, even though in any comparative study these countries consistently fall in the extreme end of the scale, making them “one of the worst subpopulations one could study for generalising about *Homo sapiens*” (Henrich et al. 2010 quoted in Lancy, 2015:2). Outside of Europe and North America, the norm in almost all societies is that infants are kept in close contact with their mother or another caregiver, are carried everywhere, breastfed frequently whenever they want, and sleep with their mothers. As the child grows older and starts to walk, the majority of the child care is provided by other family members and community (Ibid:16-17). This is a very contrasting scenario to Europe and North America where infants in comparison are carried significantly less, are often fed on a schedule and often sleep in a separate room from their parents (Small, 1998:105, 112), and where the responsibility for child care to a higher degree is placed solely on the parents (Lancy, 2015:17). These practices and norms of industrialised Western societies are considered relatively recent, and dates no more than 200-300 years back, to the time of the industrialisation (Small, 1998:111; Lancy, 2015:17).

Inspired by this differentiation in child care practices, and the fact of a seemingly global tendency of an overall pattern of child care practice that industrialised Western countries do not share, my curiosity leans towards the origin of this pattern, and more specifically; how have humans cared for their children through the majority of human existence? By exploring literature on human evolution and the hunter-gatherer way of life that has been the main organisation of human societies throughout the prehistoric time-period that covers the majority of human existence, I hope to get a closer look at what can be understood as the origin of human child care practices. Furthermore, by including literature on child care during the industrialisation in Europe and North America I will discuss the apparent contrast in child care customs, and with an approach informed by feminist anthropology and the theory of care ethics, discuss how society and culture shape different practices of an otherwise universal social concept of human child care.

Sherry B. Ortner writes:” Much of the creativity of anthropology derives from the tension between the demands for explanation of human universals on the one hand and cultural particulars on the other” (Ortner, 1972:5). This research is on exactly that; the tension between human universals and cultural particulars.

1.1 Objective and research question

The objective of this research is to explore the universal social phenomenon of human child care and how culture and society shape how it is practiced. My aim is to investigate how humans have cared for their children in prehistoric time, through literature on human evolution, biological data and literature from societies organised as hunter-gatherers, as well as how culture and society affect child care practices, specifically in connection to child care practices in prehistoric time, in contemporary hunter-gatherer societies and industrialised societies.

Research questions:

- 1) How have humans cared for their children in prehistoric time?
- 2) How do culture and society affect practices of child care?

1.2 Previous Research on Children in Anthropology

The extent of research done in anthropology focussing on child care and child related issues, has often been discussed. In *American Anthropologist* in 2002 Hirschfeld argued that while some anthropological studies on children have been done, an actual sustained tradition of child-focused research has not been formed. Hirschfeld finds the lack of attention to children especially contradictory as anthropology perceives culture as something that is learned, not inherited, meaning the children are actively learning and reproducing culture, and that the majority of cultural learning thus takes place in childhood. (Hirschfeld, 2002:611-612).

Benthall (1992:1) argues that child-focused ethnography potentially could reorientate anthropology the same way feminist anthropology has, applying a previously unaddressed perspective to enlighten social and cultural studies. Hirschfeld agrees with this view but argues that children unlike other marginalised groups, still have yet to win their place within anthropological scholarship, decades after other critical studies expanded the frame of anthropology (Hirschfeld, 2002:613).

Some of the most familiar anthropological studies with a child-focused perspective are the works by Margaret Mead (1930; 1933) on childhood and adolescence in New Guinea and Samoa, Beatrice and John Whiting's "Children of Six Cultures: A Psycho-Cultural Analysis" (1975) and other works (Whiting, 1941; Whiting, 1963), which are considered the pioneers of child-focused studies in anthropology. Robert LeVine (2004) (a student to the Whitings) and colleagues (1994), challenged the Western-centric perspective and flawed "universalism" of the child-development field and other social sciences. Other significant works are by Jean L. Briggs (1970; 1990), known for her studies on inuit children and emotional learning, and Judy De Loache and Alma Gottlieb, "A world of babies: Imagined childcare guides for seven societies" (2000), on cross-cultural child care studies.

Studies of children and infants in hunter-gatherer societies are quite well represented, especially works by Barry S. Hewlett (1991) and colleagues Hillary N. Fouts and Micheal E. Lamb (Fouts, Lamb & Hewlett, 2004; Fouts, Hewlett & Lamb, 2005, Hewlett & Lamb 2005), Paula K. Ivey (1993; 2000) and Karen L. Kramer and Amanda Veile (2018), some

of which will be included in this research, as well as Marjorie Shostak (1981) with her in-depth study of !Kung women. Shostak's husband, Melvin Konner (1976; 1981; and more) was among the first anthropologists to do child-focused research in hunter-gatherer societies and did fieldwork in the !Kung society together with Shostak.

Other relevant research is done by Meredith Small (1998) and David F. Lancy (2015), both of whose literature will be included in this research as well. Meredith Small is a founding part of the science of ethnopaediatrics, the study of parents and infants across cultures exploring different caretaking styles, in a collaboration between anthropologists, paediatrics, and child development researchers (Small, 1998:xi). David F. Lancy (2015) has collected a wide range of existing anthropological studies on children in his book "The Anthropology of Childhood: Cherubs, Chettel, Changelings", covering cultural perspectives on children's value and place in society and childhood and adolescence experiences from all over the world. A key perspective from Lancy's work is the concept of *neontocracy*, a society like most western countries where children are placed highest in the hierarchy, versus *gerontocracy*, a society valuing elderly and ancestors highest. Lancy's argument is that the neontocracy of the West shapes an ethnocentric generalisation about childhood, where children are seen as precious and innocent, which is in stark contrast to the reality of childhood in many other places of the world (Lancy, 2015:2-3).

In research of children and child care in an evolutionary perspective, anthropologist and primatologist Sarah Blaffer Hrdy is well known for her studies on human evolution, cooperative breeding and the development of humans' social and empathy capabilities. Her work is presented in several publications (Hrdy, 1999; 2007) including her book "Mothers and Others: The Evolutionary Origins of Mutual Understanding" (Hrdy, 2009), which will also be included in this research.

Anthropological research on social phenomena in prehistoric time has been presented in works by Sally Slocum "Woman the Gatherer" (1975) and Kathleen Gough "The Origin of Family" (1975). Both studies belong in feminist anthropology and challenge established assumptions on gender and family relations in human past. Historical research of children and child care is very limited, in part because children have not been acknowledged as meaningful until a few centuries ago, which all historical records reflect (Lancy, 2015:5). Additionally, archaeological data on children is

especially hard to collect, as remains of specific children's items can be difficult to differentiate from normal tools or artefacts, and due to the low status of children in society, their burials have often been of a less formal form and placement, and therefore less well preserved (Lancy, 2015:9).

In general research on child care in anthropology includes many publications and studies from many different cultures but is also subjected to the historical insignificance of children as well as many different perspectives and methods, as Hirschfeld (2002) notes, without a consistent school or tradition of research. With this research I hope to contribute to the body of child-focused anthropology with a conversation on human child care in a broader perspective of human evolution, as well as on the intersection between biology and culture and how it manifests in child care practices.

1.3 Theoretical Framework

Paleoanthropology

As this study in part concerns human life in prehistoric time, I will in this section introduce theory used in anthropological studies of human history. This theory will shape the design of part of my research, as presented in the following method section.

Paleoanthropology is a subfield of anthropology, combining aspects of physical anthropology and prehistoric archaeology to study the evolution of human behaviour and ancient life-ways from archaeological residue findings (Freeman, 2009:6, 16). It covers the historical time period of approximately four million years ago until ten thousand years ago, though the boundaries of the period can be hazy. Prehistoric time is defined as the time before written records, meaning that it varies regionally (ibid.:7-8). As paleoanthropological data is scarce, collected from few material findings spread out over a very long time period, scientists often have to collaborate across disciplines like natural science, geology, archaeology, and combine different types of data in order to gain knowledge from their findings (ibid:9, 13). From an anthropological perspective archaeological records are thought to add a unique perspective of the long-term cultural

process and constantly changing spectrum of human behaviour, giving a greater depth in the understanding of culture (ibid:10).

When studying societies of the past L. G. Freeman (ibid.:20-21) argues to avoid analogical reasoning, that is the assumption of constructed categories or “levels” of cultural, societal or social development, as this is misleading both due to the sparse archaeological material, and the high diversity and context-specific adaptation in human cultures. This includes that present-day societies of older cultures cannot be understood as representing past stages of cultural development (ibid.:21). While some similarities between older cultures and present-day societies can exist, Freeman stresses that these must not be assumed before they are demonstrated (ibid.:22). Furthermore, he emphasises the importance of separating biological factors from cultural behaviour (ibid.:23) as an activity based on biological factors alone cannot be understood as a performance of a cultural system.

Freeman's argument of combining different types of data or data from different origins, is shared by feminist anthropologist Kathleen Gough in her study “The Origin of Family” (1975). Gough suggests that when researching social phenomena of early humans, one generally has three sources of data; non-human primates, archaeological findings, and studies of contemporary hunter-gatherer societies. None of these sources of data are individually ideal or adequate but put together they offer valuable and useful insight (Gough, 1975:51-52).

Theory of Feminist Anthropology

While the structure of my research in part will be formed by the theory from paleoanthropology, my discussion and interpretation of material will be guided primarily by a framework of feminist theory and the theory of care ethics.

Feminist anthropology emerged in the 1970's as a response to the fact that the field of anthropology like most other sciences until then, largely had been dominated by male researchers since its origin. Feminist anthropology involves enlightening and challenging the male bias dominating the field of anthropological science, both in its framework, method and content. Rayna R. Reiter writes: “Our own academic training reflects, supports, and extends the assumptions of male superiority to which our culture

subscribes” (1975:13), emphasising the multi-layered male bias within the anthropological research. The male bias in anthropology is further evident in existing ethnographic data collection where women generally were under-analysed and often overlooked. Data on women were often provided by men answering questions about their female family members, and the information and experience gained from men would often be presented as a group reality (Reiter, 1975:12). A feminist approach in anthropology thus includes being aware of what questions are asked (and which are not) and who is answering them, being aware of gendered hierarchies in field that is studied, and especially being aware of the gendered hierarchies in our own milieu, biasing our perspective and construction of meanings (ibid.:13-15).

Besides challenging the male bias in the framework and practice of anthropology, feminist anthropology emerging in the 1970's was also about using the anthropology to investigate the female subordination as a universal structure experienced everywhere (Ortner 1972; Webster 1975). This brought a debate on the dichotomy of nature and culture and how gender structures reflect and relate to this. Sherry B. Ortner suggests that the universal female subordination can only be explained through other universal phenomena and argues that culture can be understood as the means by which humans transcend from their natural existence, creating a conflict between ‘nature’ and ‘culture’. Given the physiology of female reproduction, Ortner argues women are considered to be in more direct connection with nature than men, and the universal hierarchy between female and male thus reflects the universal hierarchy between nature and culture (Ortner, 1972:9-14). The universal subordination of women will not be a main component in the theoretical framework of this research, as I am not investigating child care as a specific women-orientated task and many of the presented studies include child care provided by both men and women. However, the conflict of nature and culture is highly relevant, and I will return to this during discussion of the literature.

Theory of Care Ethics

The theory of care ethics is a perspective of practice of care being fundamental to human survival and existence. Care ethics arose from feminist ideology, valuing the importance of care and work of caregiving. It exists as a set of ethics or a theory of

moral, to challenge established institutions and political systems who often or generally prioritise by other rationales (Held, 2005:10). In care ethics 'care' is understood as the activity of providing care for someone (and by implication oneself as well, in order to be able to provide care for somebody else), including attention to feelings and needs, as well as skills in understanding a situation from another person's point of view (Ibid:31). I choose to include it in the framework of this research, as it allows me to focus on the fundamental character of caregiving and -receiving as necessary to human survival and emphasises the value of care which is otherwise often overlooked and disregarded as a high-value cornerstone of human life.

1.4 Method

Research design and method

The method of my research will be a literature review of existing studies on child care and changing practices. Based on the presented theory used in paleoanthropology I have chosen literature on different types of data, including archaeological findings, human biology and evolution, and nonhuman primates, to secure multiple angles on the matter of child care in prehistoric time. The theoretical framework of feminist anthropology and the theory of care ethics have guided 1) my interpretation of material, 2) my perception of potential bias in the chosen literature, and 3) a general perspective for discussion.

In order to answer my first research question, *how humans have cared for their children in prehistoric time*, I have searched literature on child care from an evolutionary and biological perspective, archaeological data, and studies from hunter-gatherer societies specifically including family life or focus on women and/or children. To answer my second research question, *how culture and society affect practices of childcare*, I have searched in literature on industrialisation, urbanisation, family structures and child care in Europe and North America in the period 1800-1950, and generally literature on child care in different cultures and societies. Each category is presented in the material section below.

Definitions and delimitation

As I am primarily interested in investigating the parent-child relation and care practice in light of the strong dependency human children are born with, I will focus specifically on literature on children aged from birth until five or six years. A lot of the data found in the literature is not very precisely age-specific and my age delimitation will therefore be approximately.

As definition of child care practices or customs, I have looked for any kind of data and observations including social interactions, family life, daily tasks and routines, medical advice, and publications from health and social authorities relating parents and children. The type of data varies quite a bit from the different sources and time periods, as specified in each subsection below. Though often related, I have generally limited the inclusion of observations on family and marriage structures, unless especially relevant for the given case.

Material

While much of academic literature on child care is related to medical or psychological fields of research, I have generally used literature written by anthropologists. However, many studies are conducted in cooperation between anthropological researchers and researchers from other fields. The material was found through several literature searches, using search words like *children*, *infant*, and *child care*, in combination with *anthropology*, *evolution*, *hunter-gatherer* or *industrialisation*. Much of the material was also found by reviewing references in relevant literature and bibliographies of recurring authors, providing a solid overview of the field of research.

Evolution, primates and archeology

To investigate the evolutionary and biological perspective on child care I have included literature primarily from anthropologist and primatologist Sarah Blaffer Hrdy and ethnopaediatrician Meredith Small, as well as a number of studies on evolutionary predispositions and implications related to infant carrying.

Hunter-Gatherer societies

To describe observed child care practices in contemporary hunter-gatherer societies I have included several studies, primarily from the !Kung people and the Aka people, as well as some observations from other societies. All studies have been conducted by anthropologists and almost all through participant observation during longterm fieldwork. 'Hunter-gatherer societies' are defined as mobile societies living based on hunting and gathering of wild animals and plants, with no domestication of plants or animals besides dogs (Hewlett and Lamb, 2007:6). The word 'foragers', with the same definition, is used interchangeably with 'hunter-gatherer' in many studies. 'Contemporary' is defined as existing in present time and field observations date from the 1970's and up till present day. All studies used in my research have been conducted with an objective specifically about child care, children, parenting and/or family life.

A nomadic hunter-gatherer way of life has been the organisation of human life for at least 90 percent of human existence and can be understood as the 'contexts that characterised most of human history' (Ibid:5-6). However, present-day societies living as hunter-gatherers constitute a wide range of cultures and is generally not sufficient to predict or conclude something about human past (Lancy, 2015:8-9; Freeman, 2009:22). I have chosen to include studies of child care in contemporary hunter-gatherer societies in combination with biological and archaeological data, not to attempt to gain any conclusion about human culture in the past, but to investigate how a society organised like this may handle the practical activities of child care in perspective of the biological and archaeological findings. Furthermore, present-day hunter-gatherer societies are minimally affected by Western industrialisation in their day-to-day life, making them an interesting perspective to the discussion of how society and culture shape practices of child care.

Western industrialisation and cultural differences

To discuss the new practices of child care that appeared during the industrialisation in Europe and North America I have included literature on different publications of medical advice on child care, especially V. Sue Atkinson's review of changing advice and guidelines published between late nineteenth century to mid twentieth century, and

literature by David F. Lancy and Meredith Small on child care in different cultures, including practices emerging during the industrialisation in the period 1800-1950.

Reflections on material

All literature in this study has been written by somebody other than me and all sources are thus second-hand sources. Though most, if not all, observations are made by trained anthropologists, every observer will to some degree be affected by their individual bias, in observations, data analysis and conclusions. What interactions did not catch the attention of the observer? What questions did they not ask? Is there a greater context that was missed in the presentation of the study? And even more, what might have been lost in translation or overlooked in unfamiliar social behaviour? There are so very many things that can be missed and within the human capability it is impossible not to observe and usefully analyse everything. Throughout my research and presentation of data I am aware of this and continuously ask the important question of what I, and the given researcher, are not seeing. I am keeping in mind the intention of the research of every study I use, and their methodology.

Further, I picked the literature for this research based on the studies available, meaning that my result will only be a result of just that. Many sources refer repeatedly to the same or similar studies or highly studied groups, like e.g. the !Kung people. I am aiming to include as broad a selection of data sources as possible but will unavoidably be subjected to the limit of what topics and people that have been studied.

Reflections on my own positioning

I am a parent myself, I grew up in a family with smaller siblings and I have worked in child care for several years when I was younger. Furthermore, I am anthropologically inspired and curious on the basic biological and social needs and functions of humans, specifically in the historically perspective of our natural existence which has so dramatically changed during the last couple of centuries. This of course affects my general and initial perspective when researching and reading material. Through continuous self-reflection throughout my research process I have kept aware of this and

any bias it could bring. Especially I am aware of the tendency to glorify or romanticise ‘the natural’ regarding humans, society, biology and more. It is easy to forget from our privileged 21st century lives, how reality may have been for humans before us and a few previous generations. Furthermore, my objective is not in any way to judge better or worse methods of child care practices or their consequences (an assessment that is also entirely outside the field of anthropological science), but to reach a better understanding of the meeting between biology and culture and how culture and society affects otherwise biological practices.

1.5 Disposition of the thesis

In Chapter 2 I will take a step back to the very evolution of humans and the biology of children and child care by reviewing different studies on humans, non-human primates and archaeological findings. Chapter 3 will include child care practices observed in contemporary hunter-gatherer societies and how many of these show a pattern, as well as reflect the evolutionary and biological knowledge. In Chapter 4 I will present literature on child care practices reflecting trends in Western societies following the industrialisation, and discuss how culture and society affect child care practices in relation to industrialised Western societies and contemporary hunter-gatherer societies. With an approach guided by feminist anthropology and the theory of care ethics I will explore a deeper understanding of the cultural differences in child care practices. In the final chapter, Chapter 5, I will summarise my findings and concluding remarks.

2 The Evolution and Biology of Human Child Care

2.1 A Short Introduction to Human Evolution

The study of human evolution is broad and complex and not something I will engage in deeper in this research. However, a few basics are necessary to outline, in order to be able to discuss the content of the studies presented in this chapter. Humans belong to the taxonomic order *Primates* and are related to other primates in the sense that we share common ancestors. Our closest related nonhuman primates are orangutans, gorillas, chimpanzees and bonobos, who together with humans constitute the cluster of primates called 'Great Apes' (Hrdy, 2009:86). This cluster of species, including immediate ancestors, is also called *family Hominidae*. During the evolution of the modern human species, *Homo Sapiens*, many other human species have existed and gone extinct, many of which have also walked upright, used tools and had relatively large brains. The term *hominins* is used to describe members of the lineage of the modern human, including both living humans and extinct human species (Berez et al., 2020:4-5).

This chapter will undertake the question of how humans have cared for their children in prehistoric time by reviewing literature that combines multiple types of sources, like biology, human evolution and archaeological findings. An approach that offers surprisingly many clues and indications to the life of early humans.

2.2 The Dependent Baby

Different animals are born in very different stages of development. A deer or a giraffe is born with fur, alert, and can walk on its own just minutes after it is born. A kangaroo or

a mouse is born blind and with limited physical capabilities. These different types of infants are called *precocial* and *altricial*. Precocial infants are usually bigger animals with bigger brains, longer gestational period and slower breeding, and are born relatively well developed, with a more mature nervous system and control of their limbs and movement. Altricial infants are usually smaller animals with smaller brains and faster breeding cycles, like mice, and are born less mature and with less developed brains (Small, 1998:5). Most primates are precocial, with relatively capable infants born highly developed, somewhat alert, and with the ability to actively cling to their mother's fur. Human infants, however, are born highly incapable and helpless with little to no control of their body. Humans are therefore considered *secondary altricial* animals, meaning that human ancestors were precocial and that humans later adapted and became altricial.

The reason for this is the human brain. Large brain-size is a great advantage, but it is also costly in energy and consequently human babies are born before their brains are finished. The brain then grows immensely after birth and the rate of human brain growth is faster than of any other mammal, for the first twelve months of the infant's life (ibid.:6). Some scientists even suggest that the total gestation time of humans can be understood as not nine but twenty-one months, of which the last twelve are just spend outside the womb (ibid.:7). Thus, humans are biologically rather unusual due to the evolutionary solution to our exceptionally large brains. As human infants per se are born underdeveloped their survival is entirely dependent on the care they receive.

Primates in the Hominidae family generally carry their infants after birth, as opposed to parking or nesting animal species, who leave their infants for periods of time to hunt or collect food (Berez et al., 2020:2). The breastmilk composition in carrying species is different than in parking and nesting species, where carrying species, including humans, have a higher content of carbohydrates and lower fat and protein, making it suitable for frequent feeding, while parking and nesting species have a higher content of fat and protein making frequent feeding less necessary (Berez et al, 2020:2; Wall-Scheffler, Geiger & Steudel-Numbers, 2007:841). Based on this data scientists consider humans a carrying species and that early hominins most likely have carried their infants with them everywhere.

2.3 Evolutionary Predispositions

Human babies are born with a number of biological predispositions that can tell us not just about our biology, but about the evolution of human life and child care, simply what an infant “expects” from the world when it is born. The modern human anatomically identical with present-day humans has been around for approximately 200.000 years and genetic data show that all humans living today descend from humans living in Africa between 50.000 and 150.000 years ago (Hrdy, 2009:18). This means that a baby born today is not that different from a baby born in the prehistoric time-period and the biological predisposition of newborns can thus be used as a clue on how early human life has been formed.

Human infants seem to be instinctively aware that they need attachment in order to survive. Within few minutes of being born human infants automatically search for their mother’s breast, latch on and start suckling. In fact, the region of the brains neocortex that controls the mouth and tongue are the very first to be developed in the womb. The suckling then stimulates a hormonal response in the mother inciting a soothing feeling and nurturing impulses, encouraging bonding between them (Hrdy, 2009:39-41). Likewise, babies are born with an instinctively interest in faces and will seek out any nearby face in order to make contact (ibid:48). Natural selection favoured these abilities in infants, as well as mothers' sensitivity to protect and care for their offspring as it simply was critical for survival.

Human infants are born with several reflexes that point to the practice of clinging and being carried, including the plantar reflex, the moro reflex and the stepping reflex (Berez et al., 2020:5-7) The plantar reflex, also called the grasping reflex, and the stepping reflex both help the baby “cling on” to its caregiver and appear to assist the baby in stabilising when being carried. The moro reflex, a sudden outstretch of arms and legs triggered by sudden movements, is also thought to help the baby to hold on and regain its hold in case of lost balance. Interestingly, the moro reflex is inhibited when the grasping reflex is in function, meaning that if the baby already has a steady hold on its caregiver, the moro reflex is less likely to get triggered. Archaeological findings from the early hominin species, *Australopithecus afarensis*, show ape-like features to the feet, even though the species walked upright. This feature suggests that infants and children might have been

able to cling on to their caregivers themselves, even in an upright position (Ibid:3) and that human species kept biological features and predispositions for clinging and carrying through evolving species.

When held by a walking person human babies engage in what is called 'transport response' which is a biological response also found in other mammals. The transport response is a calm state where the baby shows reduced mobility, less distress vocalisation and a lowered heart rate. The phenomenon is understood as having an evolutionary function of increased chance of survival when avoiding attention from possible predators (Ibid:10) but is still present in babies born today.

Based on thorough research presented in their study, Berecz et al. (2020:1, 12) consider infant carrying a biological norm for humans. They conclude that human infants through their evolutionary predispositions expect to be carried, and that human predecessors have been carrying their infants for 55 million years.

2.4 Infant Carrying and Development of Tools

From the suggested argument that human infants likely have been carried by their caregivers the majority of the time, several pieces of literature are engaged in the question of this practice and whether and when humans possibly started developing tools to assist the carrying as humans walked on two feet. Carrying devices exist in almost all recent societies and have been observed in all non-industrialised societies, made from whatever resources and materials have been available (Berecz et al., 2020:8-9). As organic material is not well preserved, no archaeological findings can help determine a timeline of the practice. The earliest evidence of the use of a carrying device is from an engraved slate from the Ice Age, dating 15.000-11.000 years ago, depicting four women, one of them carrying an infant in what seems to be a carrier (Berecz et al., 2020:8-9)

Furthermore, multiple archaeological findings of hominin individuals with limited motor and locomotive abilities, both children, adults and elderly people who would not have been able to reach the age they had if they had not received specific care, including being transported, suggest that humans have likely used some type of carrier tools (Ibid.). These kinds of findings are very interesting approached with the perspective of care

ethics. While this type of care, transporting group members who were not able to walk themselves, must have been very costly of energy and resources, it seems it has still been prevalent enough to be evident in multiple archaeological findings. This indicates just *how* fundamental collective practice of care might have been to humans and their social organisation.

To investigate the possible invention of infant carriers a study was conducted to calculate the difference in energy-use when carrying an infant in-arms compared to in a carrier device. The study found that the energy-use of carrying in-arms was 16 percent higher, which the authors concluded as a high enough energy expense to likely reward the development of a carrying device shortly following the beginning of bipedalism (Wall-Scheffler, Geiger and Steudel-Numbers, 2007:844-845). The study also found that the activity of infant carrying without a carrier, is a higher expense of energy than breastfeeding which has previously been considered the far most costly activity of reproduction (Ibid.). These findings suggest that it is very likely a carrying device was developed by early humans, some suggest the species *Homo Erectus* (Berez et al., 2020:8, Falk 2009), relatively soon after the advent of human bipedalism, and early in the phase of more advanced tool-making and increase in brain size and complexity.

2.5 Cooperative Breeding and Allocare

While human babies are highly dependent for several years, humans diverge from the biological norm of slow-maturing animals by having rather high fertility and short birth intervals (Hrdy, 2009:101). Most primates have what is called a slow life history, meaning their reproductive cycle is slow with a very long period of infant and juvenile dependence and long intervals between births (Gettler 2010:7), meaning that their offspring generally has become independent by the time the mother becomes pregnant again. Humans, however, while having equally or even more dependent children, still have a fast reproduction cycle and thus have additional children while their older children are still highly dependent on their caregivers. This unusual pattern lead scientists to suggest that paternal and communal involvement in child care, so called cooperative breeding, has

been a prevalent and necessary social norm in the evolution of humans (Hrdy, 2009:67; Gettler, 2010:7-8).

Paternal care is relatively rare among mammals and only occurring in about nine to ten percent of mammal species (Gettler, 2010:7). While previous evolutionary studies on male investment in females and offspring have tended to focus on provision of food and safety, Lee T. Gettler argues that direct male care, specifically carrying, might have been more prevalent than previously suggested, and potentially even contributing in the evolution of the modern human (Gettler, 2010:7-8). From a biological point of view, Gettler argues that besides increasing the offspring's chances of survival, the male investment makes sense as the reduction of the maternal burden will cause the mother to return to ovulation faster and thus increase reproduction (ibid.:12). Likewise, it is found that shared care for offspring in nonhuman primates increases birth rates (ibid.:10). Simply, data suggests that support and investment in child care from fathers and/or other community members is strongly correlated to how many children are born. As child mortality most likely has been rather high (Hrdy, 2009:109) this would have been very beneficial for survival of the species.

Though studies on hormonal response in human fathers caring for their offspring, are a little inconsequent in results, Gettler (2010:12) and other researchers (e.g. Hrdy 2009:161) argue that the fact that *some* hormonal response is found, in some cases a very significant response, shows that the paternal investment potentially has had an evolutionary purpose. The fact that men can experience a biological response of hormonal changes when becoming fathers suggests that the attachment between father and child has been favoured through evolution, seemingly because it had a purpose to survival of the species. Gettler's study is interesting as it challenges established assumptions on gender and family structures in prehistoric humans, in line with several other studies within feminist anthropology (See e.g. Slocum (1975) and Leibowitz (1975)).

The practice of child care and provision performed by group members other than the child's biological parents is called cooperative breeding or allocare, with the term alloparent or allomother describing the non-parent person providing care (Hrdy, 2007:3). In her extensive study on the matter, Sarah Blaffer Hrdy (2009) argues that not just paternal investment, but collective investment has been both common and necessary for infant survival in early humans. Previous studies of human infant care, like attachment

theory, tended to focus almost solely on mother-infant-bonding. However, within the last couple of decades scientists have started paying more attention to the seemingly high and important prevalence of cooperative breeding (ibid.:126-129). While about half of all primate mothers (including all nonhuman Great Apes), have strict continuous physical contact with their infants for the first period of their life and are extremely possessive of them, human mothers diverge from this biological norm and are willing to let others hold and care for their infants. This is despite the fact that humans share most other biological impulses that occurs in nonhuman primates around birth, like hormone changes, hyper-vigilance and anxiety (ibid.:68-69;73-75). Hrdy reflects on some possible reasons to this, likely that the higher cognitive skills of the developed human brain can assess the positive benefits of receiving help (Ibid:78-79). However, it is also worth adding that *allocare* is extremely prevalent in other types of primates (Ibid:88-92), and from an evolutionary perspective there is no argument determining that cooperative breeding could not also be a deliberate biological purpose in humans. Though humans are considered a carrying species, it is however not the same as that human mothers necessarily are the only carriers of their infants.

The general argument presented here is that considering humans reproductive patterns, the slow maturing of human offspring, human hormonal responses, other primates breeding models, and the general living conditions for humans, all data points to that humans have cared for their children in cooperation with multiple other group members. All studies referenced here, while basing their arguments in biology and human evolution, also included data on contemporary hunter-gatherer societies to further support and test their argument, which we will return to in Chapter 3.

2.6 Human Evolution

Much of the literature presented in this chapter includes further elaborated arguments on suggested correlations between child care practices and human evolution. Studies on human infant carrying are numerous and comprehensive, in part because the fact that humans (and other primates) carry their infants despite the significantly higher energy cost compared to hiding the child somewhere, suggests that there must be other

advantages to carrying (Gettler, 2010:10). Berecz and colleagues suggest a correlation between language and communication development and infant-carrying, as the infant carried on front or hip of an upright walking human, is in an optimal position for observing and engaging in social interactions and communication, with the person carrying them as well as others (Berecz et al., 2020:9). Generally, several vital steps in human evolution presumably coincided with the physiological changes that caused infants to be carried in a lateral position, likely in some type of carrier, which in turn have also created better conditions for the postnatal brain development of infants. This suggests, or at least oppose a complete rejection of, that infant-carrying in upright walking humans might have contributed to the evolution of the human brain.

Furthermore, both Gettler and Hrdy suggest connections between human development and cooperative breeding and allocare. Gettler suggests that the emerging practice of paternal care might have been a factor in reducing the maternal energy burden and thus facilitating a shift in the distribution of reproductive costs in a way that possibly changed the life and reproduction pattern of early humans (Gettler, 2010:7-8). Hrdy argues that the high dependency on multiple caretakers caused humans to become exceptionally skilled in reading the emotions and mental state of other people (Hrdy, 2009:65-66), laying the foundation of the extraordinary empathy and social skills that are significant for modern humans compared to other animals. Furthermore, Hrdy argues that while evolutionary anthropology often credits aggressive traits like “killer instincts” and competitiveness to the survival and development of the human species, it is far more likely that the outstanding practice of cooperative childrearing is what has kept the human species alive and well (Hrdy, 2009:19-21).

Several of these arguments and propositions are particularly interesting in the perspective of feminist anthropology and care ethics. The notion of cooperative breeding, allocare and paternal investment redefine many previous assumptions made about human evolution, parallel to the critique placed by Sally Slocum in “Woman the Gatherer” (1975), challenging the excessive focus on males and hunting in anthropological studies of evolution. The gendered division of labour, societal organisation, and hierarchy in survival contributing factors previously assumed in early human life, are seemingly products of (male and Western) bias in research more than it necessarily is the real history.

In perspective of care ethics, these findings emphasise human care as not only deeply fundamental to humans, but even essential to the way humans evolved.

2.7 Human Child Care in Prehistoric Time

The literature presented in this chapter indicates that constant or nearly constant carrying, frequent breastfeeding, and child care shared by multiple group members, have been prevalent child care practices of humans in prehistoric time. Additionally, the literature suggests that tool-making, to reduce the burden of infant carrying, and development of language and social skills may have been related to child care practices. In accordance with the presented theory in paleoanthropology, it is important to note that the findings of this chapter primarily relate to biological facts, not culture. I interpret the findings as what can be understood as a *biological baseline* for human child care. This is what we know from biology and evolution, of how child care presumably has been practiced by humans through the majority of human existence.

In relation to the difference in child care patterns between industrialised Western societies and the rest of the world as presented in the introduction, it is also interesting to note that the general child care pattern prevalent outside of the industrialised West as presented by Lancy (2015:16-17) is congruent with the biological and evolutionary data, in regard to both physical contact, carrying, frequent feeding and alloparenting. This correlation will be revisited in the discussion on culture, society and child care in Chapter 4.

3 Child Care in Contemporary Hunter-Gatherer Societies

People living in hunter-gatherer societies do not represent pre-historic humans. However, societies based on gathering and hunting as a way of life is how people have lived in almost 90 percent of the time of human existence, far longer than any agricultural and industrial societies (Shostak, 1981:4). While it is important to note that contemporary hunter-gatherer societies can be very diverse in cultures (Lancy, 2015:8), scientists have also found that when comparing the social and economic organisation in different groups of hunter-gatherers, they have more in common with each other than with any other type of societies around them. As Shostak notes, it seems that people living this way will inevitably face similar ecological challenges and with a limited number of alternatives to choose between they are likely to organise their lives in similar ways. This pattern makes it reasonable to suggest that a somewhat similar organisation of life has existed in most human societies before the agricultural revolution (Shostak, 1981:16). When studying social phenomena in early humans, observations from contemporary hunter-gatherer societies can thus be useful in combination with other data (Gough, 1975:52) and a correct theoretical approach.

The presented observations might help us understand how these types of societies care for their children and at least how child care can fit in a hunter-gatherer organised society. This chapter will present observations on child care practices from different hunter-gatherer societies, as well as discuss some general characteristics found in most observed societies and how these relate to the findings of Chapter 2.

3.1 The Aka People

The Aka people live in the regions of southwest Central African Republic and northern People's Republic of the Congo. The observations I will use in this study are conducted

by Barry S. Hewlett and published in his book “Intimate Fathers” (1991)¹. The group in Hewlett's study lived in the area of Bokoka where approximately 300 Aka people live. The Aka people live as foragers in the rain forest, a relatively abundant life thanks to the great accumulation of knowledge and skills in their society. They are generally organised in family units living together in a camp of often twenty to thirty-five individuals, of which around half are children under the age of 15 years (Hewlett, 1991:11-12, 20, 32).

In Hewlett's observations of the Aka people infants are held at all times, usually in skin-to-skin contact with a caregiver, carried in a sling on the hip during the day and sleeping with their parents at night. They are breastfed whenever they want and are attended to immediately when they fuss or cry. The infant is automatically included in all day-to-day activities throughout the day and receives much interaction through talk, play, affection and teaching of skills (Hewlett, 1991:32). Child care is a highly shared activity and besides the parents many other camp members will hold and provide care for a child. Hewlett observed that one-to-four-month-old infants would be held by their mothers less than 40 percent of the daytime in camp, with an average of seven different caregivers that the infant frequently would be transferred between. Only when outside of camp the infant was held by its mother 90 percent of the time, with a lot less help from other caregivers (ibid.:34). Children sleep with their parents in a shared bed from they are born until the age of ten to eleven years. If a child has a grandparent living in the same camp, children over the age of five will often sleep together with them. By the age of ten to eleven most children will make their own or shared house next to their parents (ibid.:32).

Aka children usually begin weaning at the age of three or four years when their mother becomes pregnant again. Once a younger sibling is born children are no longer carried by their parents, and as they can still not walk fast or long enough to keep up on with the hunting they will stay behind in the camp with a few other children and an adult. The children are generally allowed to play and explore wherever they want and are not kept under very strict supervision. By the age of seven or eight the children are usually able to keep up with their parents on hunts and will join them in the forest (Hewlett, 1991:36-37).

¹Hewlett uses the word ‘Pygmies’ about the Aka, I have chosen the word ‘People’ as I find it more neutral.

Practical skills are taught and encouraged from an early age and Hewlett observed infants as young as eight months being taught about different tools, like spears, digging sticks and baskets (Hewlett, 1991:32). By the age of three or four years children can cook a meal for themselves on the fire, and by the age of ten Aka children have enough skills to live alone in the forest if they needed to (ibid.:34). Alongside useful skills Aka children are also given great autonomy from an early age. Babies, once able to crawl or walk are allowed to go wherever they want, only rarely intervened if they are on their way into a fire place or hitting another child (ibid.). In that case the adult will move the child, but they will not tell them 'no' or in any other way try to verbally reinforce a certain behaviour. Hewlett notes that while children are treated with great care and attention, the Aka society is not specifically child-focused, and adults generally do not stop their activities or change their behaviour to accommodate a child. Rather the child is included in whatever the adult is preoccupied with and the adult will take care of the child's need without too much interruption in their activity. This priority also means that children will sometimes not be a parent's main concern, as observed in hunting situations where a parent may leave the infant on the ground while chasing after a game animal, even if the infant is crying (ibid.:33-34).

Aka children are also not expected to necessarily do what their parents ask of them. When a parent asks an older child to help with a household task the child will often just ignore the request. The parent might yell after the child but will otherwise not place any type of punishment or attempt to alter the child's behaviour. Hewlett calls this 'lack of violence and negotiation'. Generally, violence and corporal punishment is rarely seen and not well approved between adults (Hewlett, 1991:35).

Aka fathers are highly involved in infant and child care (Hewlett, 1991:103-105) and the intimate father-child relationship is the general objective of Hewlett's study, with the motive to challenge the established assumption on minimal paternal involvement with infants which was common in previous cross-cultural studies of infant care (ibid.:1), as also noted by Gettler (2010) in the previous chapter. In a general sense Hewlett describe infant- and childhood among the Aka people as being “indulgent and intimate” (Hewlett, 1991:35).

An interesting addition to Hewlett's observations is a number of interviews with parents in the group, who answered questions on their experience of parenting. While just

twenty parents were interviewed and the sample thus is too small to conclude much from, the variation in the answers are interesting. Though the child care practices of the Aka seemingly are pretty unanimous, parents' experiences still varied a bit, with some parents expressing a dislike for some parenting tasks, including transportation, infant-crying and breastfeeding (Hewlett, 1991:111). These statements show that child care in hunter-gatherer societies also include different, and not always pleasant, caregiver experiences.

3.2 The !Kung San People

The !Kung San people live in isolated areas of Botswana, Angola and Namibia, on the border of the Kalahari desert. The land is semi-arid with few water sources and a climate of seasonal changes from extreme heat in the summer to night-time freezing temperatures in the winter. The !Kung San people live a highly environment-adapted life, providing food from hunting and gathering, and located in semi-permanent camps with minimal personal properties that easily can be moved. A camp is usually between ten and thirty individuals, with a stable core of older people and frequently change of additional residents who move from camp to camp (Shostak, 1981:3-4, 8-9). Due to its harsh environment and scarce sources of water, the area has often been sheltered from outside settlement, however archaeological findings demonstrate that the area has been occupied by hunter-gatherer societies continuously for more than eleven thousand years (Shostak, 1981:8). Most observations in this section are from Marjorie Shostak's fieldwork, published in her book "Nisa: The Life and Words of a !Kung Woman" (1981), in a study primarily about women and life-experiences. Shostak learned the very unique language of the !Kung San people and was able to collect her material from direct conversations (ibid.:5-7, 17-18). While Shostak's study is one of the earlier, conducted in the early 1970's, the !Kung San people has since become one of the most studied hunter-gatherer societies in the world (Lancy, 2015:8).

In Shostak's observations of !Kung society babies are included in all activities throughout the day. A baby will be carried in a sling on their mother's hip or back and brought along when the group goes out to gather food, during preparation of food and any other practical day-to-day activity. The baby can nurse while sitting in the sling and is fed

frequently, often multiple times per hour, and sleeps together with its parent at night. Different group members will help out with the baby throughout the day, but the majority of the time it is held by the mother. When it is not held or carried by its mother, it is held by somebody else, actually a !Kung baby is held and in close contact with somebody all the time (Shostak, 1981:45-46). Kung! children are weaned from breastfeeding when their mother becomes pregnant again, often when the child is around 3 years old. It is believed to be very unhealthy to breastfeed during pregnancy and something that can potentially hurt or weaken the unborn child (ibid.). The process of weaning brings great conflict between child and mother, observed as frequent crying and angry outbursts. Shostak's primary informant, Nisa, herself recollected painful memories of the experience (ibid.:47, 51-53). If the mother does not become pregnant again, the last-born child will however be allowed to keep breastfeeding, often till the age of five or older.

Around the age of four years children are encouraged to walk more on their own and mothers will start leaving the child in the camp with another caretaker, often a grandparent, when going out to gather food. The process away from the frequent sling-carry is often accompanied with some frustration from the child. Other group members will help out and offer to carry the child, to ease the conflict and make the transition milder, and by the age of six or seven all children walk everywhere on their own (Shostak, 1981:47-48).

!Kung children have very close relationships with both their parents and grandparents (Shostak, 1981:47-50). !Kung parents are very tolerant towards children's outbursts of frustration or anger and generally believe that children are innocent in their natural immaturity and that they in time will grow into better behaviour on their own without deliberate 'training' from their parents. While many of Shostak's informants gave recollections of beatings and threats in their childhood memories, observations showed almost no prevalence of physical punishment. Shostak believes the rare instances of punishment likely was exaggerated in emotional recollection of childhood experiences (ibid.:50).

3.3 Other Hunter-Gatherer Societies

Seemingly, from the observations presented until now, some similar practices appear. Constant holding or carrying, frequent breastfeeding and multiple caregivers are among researchers considered the norm of infant-care in hunter-gatherer societies (Fouts, Lamb & Hewlett, 2004:462).

Studies show that the Éfe hunter-gatherers, located in the Ituri rainforest in Democratic Republic of Congo, also share the care of infants between multiple community members. Observations showed that an infant would be cared for by five to twenty-four different individuals, spending more than half of daytime hours in physical contact with other people than its mother (Ivery, 2000:858), including being breastfed by other women than its mother (Small, 1998:25).

A study from the Bofi foragers, living in and around the Ngotto rain forest in the Central African Republic, show a similar practice of child care as children are involved in everyday activities, have great autonomy, and small children are carried and breastfed frequently (Fouts, Lamb & Hewlett, 2005:32-33). The Bofi foragers are originally related to the Aka People but do no longer consider any shared culture or relations between them (ibid.:31). Bofi foragers do not actively wean their children from breastfeeding but consider the process something the child controls. When a female informant was asked when she expected her approximately four-year-old son to stop breastfeeding she laughed and said “Only he knows. Ask him. I cannot know how he thinks/feels.” (ibid.:33).

In the Ache tribes in South America, living in the forests of the Amazonian Basin in Paraguay, infants are also breastfed frequently, carried in slings and kept in close contact with their caretakers. Anthropologists have observed that infants spending 93 percent of daytime and all night-time in close contact with their mother. Small children are discouraged from physical exploration, likely due to the dangerous environment of the tropical forest, and are according to researchers significantly slower in development of gross motor skills compared to North American children (Small, 1998:89). Ache families are loosely structured and mothers often have multiple partners and potential fathers to a child. The partners are considered as all contributing to the conception of one child and fatherhood is thus officially shared between multiple individuals, a concept that is widespread among indigenous populations in South America (Ellsworth et al. 2014:647).

It is considered that women strategically chose co-fathers based on the best potential investment in the child and thereby its survival (ibid.:651-652). These observations emphasise the adaptability of child care practices in hunter-gatherer societies, as the ecological context of a given group may offer different levels of danger and thus different needs to child survival.

Similarly to the findings from the !Kung and the Aka people, observations and interviews from the Aboriginal population in Australia showed practices of shared child care, that children are integrated in the community from birth and generally allowed high personal autonomy throughout their upbringing (Byers et al., 2012:296). The study found that learning through experimentation was very common, seemingly a different approach than observed among the Ache population. This difference can be a reflection of the different ecological context, or a reflection of difference in observation and interpretation by the researchers.

Alloparenting has been of great interest within anthropological studies and is generally seen practiced at least to some degree in most observations from non-industrialised societies (Kramer & Veile, 2018:117-118). The !Kung people diverge slightly from the norm, as the amount of time babies are carried by their mother among the !Kung, is significantly more than what is observed in other hunter-gatherer societies. Sarah Blaffer Hrdy who has done extensive research on allocare, argues that the early studies of the !Kung documenting the high prevalence of maternal care likely contributed to a misleading idea of the general norm which became promoted as the human ideal in the popular attachment theory emerging in the 1960's (Hrdy, 2009:74-75, 81-82). Hrdy suggests the high prevalence of mother-infant contact could likely be related to the extreme climate of the Kalahari Desert, as frequent breastfeeding is critical for infants to stay hydrated (ibid.:77).

Hrdy writes that the more anthropologists and psychologists studied infant-care in hunter-gatherer societies,

“[...] the more apparent it became that in the nomadic hunter-gatherer context, mother-only or even primarily maternal care was more nearly an impossible ideal projected onto traditional peoples by the Western observers than a species-typical universal” (Hrdy 2009:128).

Studies from different societies, including hunter-gatherers, have shown that allocare can

be critical for child survival (ibid.:107). In an article discussing relations between abuse and infant crying, Hewlett and colleagues suggest that *allocare*, as practiced in hunter-gatherer societies, may reduce levels of abuse and neglect and note that infant crying does not resolve in stress or irritation from parents or caregivers in the observed societies (Fouts, Lamb & Hewlett, 2004:463).

Anthropologists Rebecca Sear and Ruth Mace reanalysed data from one of the largest studies done on maternal and child health in traditional societies before the introduction of modern medicine, conducted in Gambia between 1950 and 1980. The study contained data on 2,294 children, of which nearly 40 percent died before the age of five. By including data on family composition, Sear and Mace found remarkable results showing that children with older siblings or a maternal grandmother present, were significantly more likely to survive past the age of five. They even found that while mothers were critical for child survival the first two years, as the child's health depended on breastmilk, children past the age of two were as likely to survive and be healthy with or without a mother if older siblings and/or a maternal grandmother were present (Hrdy, 2009:107-109).

3.4 Child Care in Hunter-Gatherer Life

So, what can these observations teach us about human child care practices? In the observed societies some patterns of child care are evident while other practices differ. The cultural and ecologic contexts of different hunter-gatherer societies offer many variations and to conclude something more concrete would take a much more in-depth research. What we can conclude is that the practices indicated in the 'biological baseline' established in Chapter 2, are present in the observed hunter-gatherer societies presented in this chapter. Infants are kept in close contact with their caregivers, infants and small children are carried by their caregivers throughout the day, fed frequently, and child care is shared between multiple individuals. Thus, we can conclude that based on these observations, the evolutionary and biological indicated child care practices that have likely been practiced by humans in prehistoric time, are congruent with child care practices observed to concur with the human life organised as hunter-gatherers today.

As in line with the theory presented by Freeman it is also important to distinguish biological facts from cultural facts. This distinction is evident in relation to e.g. breastfeeding. Breastfeeding in the context of non-industrialised societies with little to no alternatives for suitable food for infants, can be understood as a biological fact. It is a biological function and it is necessary for infant survival. The weaning process, however, is far more flexible in relation to infant survival and is, as described in the observations from the !Kung people and the Bofi foragers, subjected to different understandings of both child autonomy and health implications. This relates to specific systems of meaning, and thus culture. Likewise, the presented observations and data do not make us able to conclude anything about the duration of breastfeeding in prehistoric human child care. Likely, we can conclude that the weaning process of early humans probably was adapted to the specific context and possibly culture of a given society.

Generally, the observations presented in this chapter show child care practices adapted to the specific context of a society. While it is easy to deduct a pattern of practices, it is also important to relate to the specific context that the observed societies have in common. In a nomadic way of life, vulnerably to the natural elements of the environment, carrying a small child on your body might be the most practical solution for transport and safety. In the same way, shared child care can be a practical solution to secure the best living conditions for all (and survival as argued by Hrdy (2009) in the section above), in an organisation of society that generally is built on interdependence between community members. This logic follows some of the observed practices, while others requires more in-dept research, as to e.g. why constant physical contact between infants and caregivers is so prevalent.

Based on his own experience from observing multiple hunter-gatherer societies, Hewlett explains that in societies like the Aka, child care customs are vertically transmitted and all caregivers conform to the same custom, resulting in a great consistency and secure attachment to caregivers (Hrdy, 2009:132; Hewlett and Lamb, 2005:15). Research further suggests a correlation between the emotional environment in childhood and the trusting world-view generally observed in hunter-gatherer societies (Hrdy, 2009:134-135). While this argument overlaps with the field of psychology, it is however an interesting note to the relationship between child care practices, society and

culture, specifically the context-specific cultural perspective on children and child care, which I will return to in the next chapter.

Lastly, I want to add that in hunter-gatherer societies as well as through human evolution, it is important to note that the circumstances of having children are and have been, much different from that in modern western societies. Pregnancy includes many risks and childbirth complications can often be fatal (Lancy, 2015:16; Shostak 1990:150). Adding to this, an estimated child mortality of 40-60 % (Hrды, 2009:109; Shostak 1990:182), loss is and has been a common part of family life. It is likely that these circumstances affect a general outlook on life, death and children, that might be very foreign or even out of the scope of comprehension to a western observer or anthropologist.

4 Cultural Differences in Child Care Practices

In this chapter I will discuss how society and culture affect practices of child care in light of the findings of the previous two chapters and additionally in relation to presented literature from the industrialisation and post-industrialisation in North America and Europe. As discussed in the introduction, the greatest difference in observed practices of child care lies between the industrialised West and the rest of the world. Given the 'biological baseline' presented in Chapter 2 and the qualitative findings from contemporary hunter-gatherer societies presented in Chapter 3, I hope to be able to engage a broader discussion of the apparent shift in family life and child care that occurred during the industrialisation and generally how society and culture shape child care practices.

4.1 Western Industrialisation and Child Care Experts

The structure of family life and conditions of child care changed significantly in North America and Europe in the nineteenth century. Urbanisation meant that many families were removed from their extended families, limiting the communal support that families previously had benefitted from, and families were often reduced to a nuclear unit of two parents and children. As society became increasingly industrialised the production of goods was moved away from home, creating a new division of labour where the family no longer would work together in their home. Instead men would work in production outside of the home and women would work at home taking care of the house and children. This process enhanced the role of the woman as a 'natural caretaker'. The allocation of production from the home also meant that children's daily life no longer was centred around participating in their parents work, which changed the very frame of childhood. Childhood was now understood as its own stage of life and children increasingly had their own rooms, clothes, toys and furniture (Atkinson, 2017:129).

Along these changes, society increasingly gravitated towards science rather than tradition, and experienced a general public interest in all things modern and scientific (ibid.). In this reshaping of society and family came a growing market for literature on parenting.

Most publications on parenting and child care were written by American male doctors and directed primarily at mothers who were seen as the primary caregivers in the home. Literature on child care in this period would include advice on strictly scheduled feedings by breastfeeding or formula bottle-feeding, and complete weaning by one year of age. Furthermore, it was advised to have separate sleeping places for parents and children, that infants should be expected to sleep through the night and that infant crying was healthy and not something that required soothing (Atkinson, 2017:130-133). Especially popular was the book “The Care and Feeding of Children” by Dr. L. Emmett Holt, first published in 1894 and later known as the 'Infant Bible of The Nation' (ibid.130). Holt gave very specific instructions on everything from bath, clothing, feeding, crying, hygiene and development. He advised limited expression of affection, and the method of 'cry it out' where an infant must be left to cry, possibly for hours, without parental attention (Holt, 1894). Many of Holt's recommendations were supported and repeated in later publications on child care recommendations. The book “Psychological Care of the Infant and Child” based on behavioural psychology, was published in the late 1920's by John B. Watson (1928), and advised against any kind of affectionate touching, kissing, playing or unnecessary attention or handling in general. Watson's argumentation, same as Holt's, was that affection would condition the child to bad behaviour (Atkinson, 2017:135-136; Hrdy, 2009:82).

The literature and instructions were presented as general medical recommendations that were scientific and universal. However, the following decades as more child care literature was published, recommendations on child care often changed substantially in different publications over the course of just fifty years. Atkinson (2017) concludes that “the advice provided was informed as much by the experts' own image of what American families should look like as it was by any scientific findings” (Atkinson, 2017:140).

An important note in regard to child care literature is that we do not know if the published recommendations were actually followed or were realistic recommendations for all parents, given the available resources in different layers of society. Atkinson comments that the contrast between the portrayed middle-class target group, and the

reality of rural and poor families, was stark (Atkinson, 2017:135). Neither is it known in detail how most child care practices had been before this time, and if, and how much, child care practices actually changed in reality. However, the upcoming of child care literature and the impressive popularity of them, evident in market and print data, says something about the culture of child care. Whether followed or not, 'expert' recommendations were clearly popular and trending in society.

Both North America and Europe experienced a drastic decline in infant mortality from around year 1870 as modern medicine became increasingly widespread, reaching historically low mortality rates in the early twentieth century (Brown and Guinnane, 2018:853; Atkinson, 2017:129). This is very likely a contributing factor to the high trust placed in science and medical advice for child care, in addition to the general public interest towards innovation and modernisation. Furthermore, the increased rate of hospital births, rather than home births, automatically generated more and earlier contact between mothers and health authorities (Atkinson, 2017:136), normalising the distribution and use of medical recommendations on child care.

4.2 How Culture and Society affect Practices of Child Care

The presented literature on trends in child care during the Western industrialisation, gives a compelling picture of the relation between child care practice, societal structures and culture. The process of urbanisation as well as the allocation of production away from home, significantly changed the context and structure of child care practices. Families were removed from extended family that could function as alloparents and children were to a lesser degree included in production in the home, changing the everyday structure of child care and freeing up more time for child-specific activities. This shows to a high degree how and how much society and societal changes can affect child care practices.

Furthermore, we can conclude than none of the practices featuring in the 'biological baseline' of presumed child care practices from early humans, were recommended or seemingly prevalent in this period of time. Infants and small children were generally recommended to be kept separate from their caregivers with very little physical contact,

fed on a schedule with several-hour intervals, and were cared for by their parents as the only adult caregivers, and primarily by just their mother as their father would work away from home.

While the scope of present-day child care practices in industrialised Western countries in my opinion is too broad and culturally diverse to account for in-depth in a research of this size, some overall patterns can be discussed. I will argue that the trends of child care presented in the literature here, laid a foundation that can still be seen in debates on child care practices today. Furthermore, the structural changes of family organisation caused by the industrialisation of society are undeniably still applicable to most present-day families. The isolation of the nuclear family, individualisation of parenthood and use of 'expert' recommendations rather than family knowledge and customs, seems highly prevalent.

The recommendation on and practice of separate sleeping arrangements between parents and children is still common, and while infant-parent bed-sharing is highly debated in western societies, it is still the regular practice in the majority of the world (Crittende et al. 2018:527-528), as it has been for most of human existence. In observations from hunter-gatherer societies reviewed in this research, all practiced bed-sharing between parents or grandparents and children, infants as well as older children. In a biological perspective, Hrdy notes that mother-infant co-sleeping occurs in almost all primates and is “as close to a primate universal in childcare as can be found” (Hrdy, 2009:131). Interestingly, in the earlier literature on child care recommendations in the seventeenth century, newborns were still recommended to sleep with their parents to ensure warmth and safety, and the recommendations of complete separation of sleeping arrangements was not recommended until the publications by Emmett Holt (Atkinson, 2017:131).

In her book on ethnopaediatrics, “Our Babies, Ourselves”, Meredith Small describes western child care practices as directed towards learning independence and self-reliance, traits that are highly valued in children. Parents and society focus on development, skills, and sleep, which are measured against a standard to tell how well the child is doing. Small describes that in response to both crying and feeding, parents try to regulate the behaviour of the child by exercising control of the situation rather than indulging the child, in fear of spoiling the child or reinforcing bad behaviour which is understood as an intentional

purpose of the child (Small, 1998:103-107). While this description probably can be nuanced by broader research and additional observations, it is noteworthy that it seems to reflect the general assumption in the child care literature from the early twentieth century, that parents need to control and limit affection and attention to avoid conditioning the child to bad behaviour. Small connects the value of independence and self-reliance in children in North America, with the economic, social, political and geographical structure of North American society (ibid.). Personal success is usually measured in income, economic status and accumulation of material goods, all measures that are gained, or perceived as gained, by individual effort rather than collective. Furthermore, achievement of the given measures of personal success, is how the capitalist economy as a whole is sustained. This rationale is very interesting in regard to how culture and society affect child care practices, and as a perspective to why child care in industrialised Western societies, generally sustained by capitalist economy, varies so immensely from child care practices other type of societies.

Based on the presented observations and literature from the Western industrialisation as well as hunter-gatherer societies, I will argue that child care practices largely are formed by adaption to society and other context-specific factors. Nomadic hunter-gatherers carry their children with them and involve them in their daily tasks and in the community, because that is what makes sense practically and socially in their specific context of societal organisation – the social and practical skills are what sustain their society. Families in industrialised Western societies live isolated from extended family and possible alloparents, so they turn to published recommendations, which in turn are a product of cultural values and social structures, promoting favoured ideals. This adaption is also evident in different weaning practices, as the duration of breastfeeding depends on the organisation of society and the tasks of women. When women are needed in manual labour and the type of work is too demanding for women to bring their children, the weaning process will reflect the need for women to return to their work. This is found to be at least one reason as to why hunter-gatherer children are breastfed longer than children in e.g. agricultural societies (Fouts, Hewlett & Lamb, 2005:43). This shows that society to a high degree affects child care practices, in regard to the geographical organisation of families, organisation of labour, gendered divisions of labour, and cultural promotion of specific ideals.

4.3 'Nature' and 'Culture' of Child Care

Applying Sherry B. Ortner's discussion of 'Nature versus Culture' to the differences in child care practices, extending the discussion from gender to a broader scope of human (family) life, gives a very interesting perspective. The premise of Ortner's argument is that culture can be understood as the means by which humans transcend from their natural existence, and that the relation between 'nature' and 'culture' thereby inherently constructs as an unequal relation, subordinating 'nature' to 'culture'. Ortner considers this subordination universal, and that women given the physiology of reproduction are considered in more direct connection with nature than men, explaining the universal gender hierarchy (Ortner, 1972:9-14).

The cultural tendencies of the nineteenth century seem to be compatible with this argument, as science and modernity were valued above tradition, biology and 'natural' customs of child care generally understood as practiced by women. Furthermore, Ortner argues that children inevitable fall in the perceived category of 'nature' subordinate to 'culture', as they due to their less developed language, motor skills, and social skills, simply are considered less-than-fully-human and less cultivated (Ortner, 1972:17). Following Ortner's argumentation child care understood as accommodating the biological functions and needs of children, like crying, nursing, and wanting to be carried, will in society be understood as 'un-cultural' and subordinate in relation to other factors in society. (This notion highly correlates with the motive of care ethics, as an opposition to exactly the under-prioritisation and subordination of caregiving in society). Rather than participate in the biological process, parents and society must train and alter children to a more cultivated state.

Applying this argument on the presented observations and data on child care practices in contemporary hunter-gatherer societies and in Western societies following the industrialisation, shows two different cultural approaches to child care. The child care practices observed in contemporary hunter-gatherer societies, as closer to a biological process as seen in non-human primates and evolutionary data., can thus be understood as a culture of child care that allows a (more) biologically determined process to exist with relatively little moulding or shaping. In contrast industrialised Western societies place a greater distinction between 'nature' and 'culture' and to a higher degree shape their child

care practices to fit a cultural trait or societal structure. In line with this rationale, Ortner notes that some 'primitive'² societies are observed to have less or even no distinction between culture and nature, and that “there is no question that some cultures articulate a much stronger opposition between the two categories than others” (Ortner, 1972:10). Evidently, this is true when applied to child care as well. Applying the concept of the dichotomy and power relationship between 'nature' and 'culture', to the phenomenon of child care in different societies, allows us to understand the cultural differences in a framework of more or less opposition between two categories universal to all humans and cultures.

In relation to Ortner's text I want to add an interesting comment to her description of the maternal role as binding women to a societal subordinary position due to the natural bond between women and their children. Ortner writes:

Mother is the "obvious" person for this task [of providing child care], as an extension of her "natural" nursing bond with the children, or because she has a new infant and is involved with child- oriented activities anyway. Her own activities are thus circumscribed by the limitations and low levels of her children's strengths and skills; she is confined to the domestic family group; "woman's place is in the home." (Ortner, 1972:16-17).

This description seems very congruent with the idea of the maternal role as a 'natural caregiver' as presented emerging in the nineteenth century. In contrast, Ortner's description does not seem congruent with the observations of cooperative breeding and alloparenting in contemporary hunter-gatherer societies and presumably in early human child care. To this distinction is it worth noting that Ortner's text was written just around a decade after the publication of Bowlby's theory of attachment parenting that highly emphasised the maternal attachment, and decades before the theories and observations on widespread alloparenting emerged according to Hrdy (2009:82-83). In this sense Ortner's argument thus confirms the cultural perception of the maternal role in child care that we, based on the trends in parenting literature and societal structure of industrialisation, assume was present in western societies following the nineteenth century.

²Ortner uses the term "primitive societies" without further definition. While this is not a word generally used to describe any type of society today, I assume Ortner refers to non-industrialised societies like e.g. hunter-gatherer societies.

Additionally, it is worth adding that based on the discussion presented here, it is possible to suggest a correlation between gender hierarchies and child care practices. While western societies, specifically in the nineteenth and twentieth century have a significant gender hierarchy and division of labour, they also have (or at least recommend) child care practices built on training and shaping children towards a societal ideal and suppress 'natural' and biological factors, incongruent with what in this research is established as the 'biological baseline'. Thus, the subordination of entities placed in the category of 'nature' disfavors gender equality as well as a biologically determined process of care. In contemporary hunter-gatherer societies in contrast, societies are observed to be more egalitarian (Fouts, Hewlett & Lamb, 2005:32; Shostak, 1981:237-238), and allow a more biologically determined practice of child care. The given opposition between the categories of 'nature' and 'culture' in the two societies evidently apply to gender and child care simultaneously.

4.4 Western Bias in Child Care Studies

Through the perspective of feminist anthropology, I have throughout my research been specifically aware of cultural biases integrated in the reviewed studies and literature. What becomes apparent is that the bias detected in conducted studies show as much of *our* cultural perspective on child care, as the culture that is studied.

In multiple studies I have used in this research, like Kramer and Veile (2018), Ivery (2000) and Page et al. (2019), researchers, including anthropologists, have studied the practice of alloparenting in hunter-gatherer societies with the premise to uncover the motive of the alloparents, as to why they would waste energy on providing care for children that were not their own offspring. While this intention makes sense from a Western perspective, it also becomes just that; a Western perspective on a practice that is highly prevalent and common in many or most societies outside of the industrialised West. It makes one ask; could there be a social level of fulfilling needs within the group, that is not perceived by the authors due to their own cultural background? The suggested hypotheses of the possible motives of the alloparents, seemingly suggest more about the cultural background of the researchers, than of the culture they are studying.

The general focus on child development and nutrition in studies of hunter-gatherer societies observed by Western anthropologists, is also highly subjected to Western bias. Though the intention makes sense, it is important to understand that the measures of this category, the metrics of health and normality, are founded by Western medicine in a Western context. This issue has been demonstrated in the works by Robert LeVine and others (Lancy, 2015:1-2) challenging the universal claims of the child development field. When describing child development, it must always be transparent that the metric it is described with, is in fact a cross-cultural comparison.

In feminist anthropology the cultural perspective of the observer is as important as the culture it observes. As Reiter writes that “[a]ll anthropologists wear the blinders of their own civilisation in approaching other cultures; our eyes are as conditioned as those of the people we study” (Reiter, 1975:13). Given my findings of cultural differences to child care in general, the presumed product of those cultural differences (how culturally different humans are raised to be), and especially context-specific differences as related to e.g. child mortality and safety in pregnancy, I find that the study of children and child care is highly subjected to cultural relativism, understood as the idea of cultures as holistic entities that can hardly be compared. I find it unlikely that an observer will be able to fully comprehend the emotional and cultural aspect of childhood and child care, without relating it to a perspective shaped by his or her own upbringing. The inherent cultural implications of the child care practices in our upbringing likely shape us in a way too fundamental to fully dismiss or dissociate from, when studying others.

5 Conclusion

In this research I have explored the universal social phenomenon of human child care in an evolutionary, historical and cultural perspective and discussed child care practices in different societies in the perspective of feminist anthropology and the theory of care ethics.

To investigate how humans in prehistoric time have cared for their children, biological and evolutionary data strongly indicate that human infants have been primarily carried rather than left in a place, breastfed frequently and been cared for by multiple alloparents. This indication is supported by observations from contemporary hunter-gatherer societies, by demonstrating how such practices practically correlate with a general hunter-gatherer organised life and society.

Discussing how society and culture affect child care practices I have found that societal changes in connection with the industrialisation of Western societies to a high degree affected child care practices, in a way that created a significant distinction between child care practices in industrialised Western societies and the rest of the world. Cultural and societal effect on child care specifically involves geographical organisation of families in the society (if family units live isolated or in a community offering the possibility of alloparenting), organisation of labour regarding location as well as type of labour (if children can be in proximity of their parents while they work) and the cultural attitude towards the biological process of child care. Concludingly I have found that child care practices are highly shaped in adaption to the specific context of society, culture and environment.

By applying the feminist concept of the dichotomy and power relationship between 'nature' and 'culture' to the phenomenon of child care in different societies, I have found that the different cultural approaches to child care practices can be understood as congruent with a greater or lesser opposition between the categories of 'nature' and 'culture'. The cultural-specific distinction between 'nature' and 'culture' applies in the studied societies to gender structures parallel to child care practices, suggesting a possible

relation between the two. The feminist perspective has additionally provided an awareness of Western bias that makes me conclude that the study of children and child care is highly subjected to cultural relativism, which child care research should always be mindful of. Finally, the theory of care ethics has allowed me to fully understand the essential function of care in the human species, and that care is not only a universal phenomenon in all societies and cultures and deeply fundamental to humans, but has even been essential to the evolution of our species.

6 References

- Atkinson, V. Sue (2017) Shifting Sands: Professional Advice to Mothers in the First Half of the Twentieth Century. *Journal of Family History* Vol. 42 No. 2 pp. 128-146
- Benthall, Jonathan 1992 A Late Developer? The Ethnography of Children. *Anthropology Today* Vol. 8 No. 2 pp. 1
- Berecz, Bernadett, Mel Cyrille, Ulrika Casselbrant, Sarah Oleksak, Henrik Norholt, (2020) "Carrying human infants – An evolutionary heritage", *Infant Behavior and Development*, Vol 60. pp. 1-15
- Briggs, Jean L. (1970) *Never in Anger: Portrait of an Eskimo Family*. Cambridge, MA: Harvard University Press
- Briggs, Jean L. (1990) Playwork as a tool in the socialization of an Inuit child. *Artics Medical Research* Vol. 49 pp. 34-38
- Brown, John C., Timothu W. Guinnane (2018) Infant mortality decline in rural and urban Bavaria: fertility, economic transformation, infant care, and inequality in Bavaria and Munich, 1825–1910 *Economic History Review*, Vol. 71 No. 3, pp. 853–886
- Byers, Lyn, Selina Kulitja, Anne Lowell, Sue Kruske (2012) 'Hear our stories': Child-rearing practices of a remote Australian Aboriginal community. *Australian Journal of Rural Health* Vol. 20, pp. 293–297
- Crittenden, Alyssa N., Samson, David R., Herlosky, Kristen N., Mabulla, Ibrahim A., Mabulla, Audax Z.P., McKenna, James J. (2018) Infant co-sleeping patterns and maternal sleep quality among Hadza hunter-gatherers, *Sleep Health* Vol. 4 pp. 527–534
- De Loache, Judy, and Alma Gottlieb (2000). *A world of babies: Imagined childcare guides for seven societies*. New York: Cambridge University Press.
- Ellsworth, Ryan M., Drew H. Bailey, Kim R. Hill, A. Magdalena Hurtado, and Robert S. Walker (2014) Relatedness, Co-residence, and Shared Fatherhood among Ache Foragers of Paraguay. *Current Anthropology* Vol. 55 No. 5. Pp. 647-653
- Falk, D. (2009). *Finding our tongues: Mothers, infants, and the origins of language*. New York.
- Fouts, Hillary N., Micheal Lamb, Barry S. Hewlett. (2004) Infant crying in hunter-gatherer cultures. *Behavioral and Brain Sciences* Vol. 27 No. 4 pp. 462-463
- Fouts, Hillary N., Barry S. Hewlett, Micheal E. Lamb (2005) Parent-Offspring Weaning Conflicts among the Bofi Farmers and Foragers of Central Africa. *Current Anthropology* Vol. 46 No. 1, pp. 29-50

- Freeman, L. G. (2009) *Anthropology Without Informants: Collected Works in Paleoanthropology by L. G. Freeman*. Boulder, Colorado: University Press of Colorado
- Gettler, Lee T. (2010) Direct Male Care and Hominin Evolution: Why Male-Child Interaction Is More than a Nice Social Idea. *American Anthropologist* Vol. 112 No. 1 pp. 7-21
- Gough, Kathleen (1975) The Origin of Family. In Rayna R. Reiter (Eds.) *Toward an Anthropology of Women*. pp. 51-76 London: Monthly Review Press
- Held, Virginia (2005) *The Ethics of Care: Personal, Political, and Global*. Oxford University Press. Retrieved 25 May. 2021, from <https://oxford.universitypressscholarship.com/view/10.1093/0195180992.001.0001/acprof-9780195180992>
- Hewlett, Barry S. (1991) *Intimate Fathers: The nature and context of Aka Pygmy paternal infant care*. Ann Arbor, MI: University of Michigan Press
- Hewlett, Barry S., Micheal Lamb, eds. (2005) *Hunter-Gatherer Childhoods: Evolutionary, Developmental & Cultural Perspectives*. New Brunswick, N.J.; London: Aldine Transaction
- Hewlett, Barry S., Micheal Lamb (2005) Emerging issues in the study of hunter-gatherer childhoods. In Hewlett, Barry S., Micheal Lamb (Eds.) *Hunter-Gatherer Childhoods: Evolutionary, Developmental & Cultural Perspectives*. Pp. 3-18. New Brunswick, N.J.; London: Aldine Transaction
- Hirschfeld, Lawrence A. (2002) "Why Don't Anthropologists Like Children?" *American Anthropologist* Vol. 104, No. 2, pp. 611-627
- Holt, L. Emmet (1894) *The Care and Feeding of Children*. New York: D. Appleton & Company
- Hrdy, Sarah Blaffer (2009). *Mothers and others : the evolutionary origins of mutual understanding*. Cambridge, Mass.:Belknap Press of Harvard University Press
- Hrdy, Sarah Blaffer (1999) *Mother nature : a history of mothers, infants, and natural selection*. New York : Pantheon, cop
- Hrdy, Sarah Blaffer (2007) Evolutionary Context of Human Development: The Cooperative Breeding Model. In Catherine A. Salmon and Todd K. Shackelford (ed.) *Family Relationships: An Evolutionary Perspective*. Oxford University Press
- Ivey, Paula K. (1993). *Life-history theory perspectives on allocaretaking strategies among Efe foragers of the Ituri Forest of Zaire*. Ph.D. diss., University of New Mexico, Albuquerque, N.M.
- Ivey, Paula K. (2000) Cooperative Reproduction in Ituri Forest Hunter-Gatherers: Who Cares for Efe Infants? *Current Anthropology* Vol. 41, No. 5 pp. 856-866
- Konner, Melvin J. (1976) Maternal care, infant behavior and development among the !Kung. In R. B. Lee and I. DeVore (Eds.), *Kalahari hunter-gatherers: Studies of the !Kung San and their neighbours* pp. 218-145 Cambridge, MA: Harvard University Press

- Konner, Melvin J. (1981) Evolution of human behavior development. In R. H. Munroe, R. L. Munroe, and B. B. Whiting (Eds.) *Handbook of cross-cultural human development* pp. 3-51. New York: Garland STPM
- Kramer, Karen L, Amanda Veile (2018) Infant allocare in traditional societies. *Physiology & Behavior* 193 (2018) pp. 117–126
- Lancy, David F. (2015) *The Anthropology of Childhood: Cherubs, Chattel, Changelings*. 2nd edition. Cambridge: Cambridge University Press.
- Leibowitz, Lila (1975) Perspectives on the Evolution of Sex Differences. In Rayna R. Reiter (Eds.) *Toward an Anthropology of Women*. pp. 20-35 London: Monthly Review Press
- LeVine, Robert A. (2004) Challenging Expert Knowledge: Findings from an African Study of Infant Care and Development. In Uwe P. Gielen and Jaipaul L. Roopnarine (Eds.), *Childhood and Adolescence: Cross-Cultural Perspectives and Applications*. pp. 149-165 Westport, Conn.: Praeger
- LeVine, Robert A., Sarah LeVine, Suzanne Dixon, Amy Richman, P. Herbert Leiderman, Constance H. Keefer and T. Berry Brazelton (1994) *Child Care and Culture: Lessons from Africa*. New York: Cambridge University Press
- Mead, Margaret (1930) *Growing Up in New Guinea*. New York: Blue Ribbon
- Mead, Margaret (1933) *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilisation*. New York: Blue Ribbon Books.
- Ortner, Sherry B. (1972) “Is Female to Male as Nature Is to Culture?” *Feminist studies* Vol. 1, No. 2, pp. 5-31
- Page, Abigail E., Matthew G. Thomas, Daniel Smith, Mark Dyble, Sylvain Viguier, Nikhil Chaudhary, Gul Deniz Salali, James Thompson, Ruth Mace, Andrea B. Migliano (2019) Testing adaptive hypotheses of alloparenting in Agta foragers *Nature Human Behaviour* vol. 3 pp. 1154–1163
- Reiter, Rayna R. (1975) Introduction. In Rayna R. Reiter (Eds.) *Toward an Anthropology of Women*. pp. 11-19. London: Monthly Review Press
- Shostak, Marjorie (1981) *Nisa: the life and words of a !Kung women*. London: Allen Lane
- Slocum, Sally (1975) Woman the Gatherer: Male Bias in Anthropology. In Rayna R. Reiter (Eds.) *Toward an Anthropology of Women*. pp. 36-50 London: Monthly Review Press
- Small, Meredith, F. (1998) *Our babies, ourselves : how biology and culture shape the way we parent*. 4th edition. New York: Anchor books.
- Wall-Scheffler, Cara M., K. Geiger, and Karen L. Steudel-Numbers (2007) Infant Carrying: The Role of Increased Locomotory Costs in Early Tool Development. *American Journal of Physical Anthropology* 133(2):841-846.
- Watson, John B. (1928) *Psychological Care of Infant and Child*. New York: W. W. Norton
- Webster, Paula (1975) Matriarchy: A Vision of Power. In Rayna R. Reiter (Eds.) *Toward an Anthropology of Women*. pp. 141-156. London: Monthly Review Press

- Whiting, Beatrice (1963) *Six Cultures; Studies of Child Rearing*. New York: Wiley.
- Whiting, Beatrice, and John Whiting (1975) *Children of Six Cultures: A Psycho-Cultural Analysis*. Cambridge, MA: Harvard University Press.
- Whiting, John (1941) *Becoming a Kwoma: Teaching and Learning in a New Guinea Tribe*. London: Oxford University Press.