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Attachment & Culture (2)

研究論文

Attachment & Culture (2)

<div align="center">愛着と文化（下）</div>

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6　Nkolbisson, the suburb of Yaoundé, Cameroon

6. 1　Cameroon: A brief History, People and Society

● Cameroon, by history, is a multicultural country. The name Cameroun in French, Kamerun in German, Camarões in Portuguese, and Cameroon in English shows that. The country's name derives from camarões, meaning 'shrimps', so called by the 15th-century Portuguese explorer Fernando Po who named the River Wouri Rio dos Camarões ('shrimp river'), after the many shrimps.[112] Cameroon was mostly ruled by powerful chiefdoms before becoming a German colony in 1884 known as Kamerun. After World War I, the territory was divided between France and the UK as League of Nations mandates.[113] French Cameroon became independent in 1960 as the Republic of Cameroon. The following year the southern portion of neighboring British Cameroon voted to merge with the new country to form the Federal Republic of Cameroon. In 1972, a new constitution replaced the federation with a unitary state, the United Republic of Cameroon.[114]

● The population of Cameroon is about 23,344,000 (2015); 53 per cent of people live in urban areas and 20 per cent in urban agglomerations of more than a million people; growth 2.5 per cent p.a. 1990–2015; birth rate 37 per 1,000 people (45 in 1970); life expectancy 55 years (44 in 1970).[115]

112）　(Commonwealth governance, 2015)
113）　(Cia.gov/the-world-fact book, 2022)
114）　(Cia.gov/the-world-fact book, 2022)
115）　(Commonwealth governance, 2015)

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The population is ethnically diverse. In the north, the people are mostly Hausa, Fulbé (Fulani), Sudanese and Choa Arab. In the west, the Bamiléké are the biggest ethnic group, followed by Tiker and Bamoun. In the South of the River Sanaga, there are Bantu groups: Fang, Ewondo, Boulou, Eton, Bassa, Bakoko, Douala. Some pygmies (including Baka) live in the south-eastern forested country.[116] French and English are both official languages. There are also about 240 indigenous additional languages including 24 major language groups.[117]

6. 2　Nkolbisson

Nkolbisson is the suburb Yaoundé which a popular district of the municipality of Yaoundé VII (the 7th district), a subdivision of the Urban Community of the city of Yaoundé.[118] Nkolbisson, in the Ewondo language, is made up of two terms "*Nkol*" meaning hill and "*bisson*", which is the plural of "*esson*" and which designates a species of ants of irregular shapes. Nkolbisson literally means the hill of ants.[119] In the past, Nkolibisson was a village surrounded by forest zone occupied by hunters and farmers. Today the forests are almost extinct due to the widening of Yaoundé city. Nkolbisson population is 97,997 with the density of 2 776 hab./ km2[120] over 143ml of rainfall annually, average temperatures in Nkolbisson are around 27° Celsius.[121]

Most Nkolbisson people are subsistence farmers, growing preferably maize, potatoes, cassava, bananas, peanut and vegetables. The farm work is done cooperatively among family members; however, women are the primary providers of subsistence.[122] Women plant weed, harvest, and organize the farm work, do housework such as cooking and provide childcare. Women sell part of the harvest on the market. The money is spent on commodities they cannot produce themselves and on children's education.[123] Men primarily fulfill communal duties and "fully participate in the welfare of the Nkolbisson folks"[124] gather firewood or are employed in paid labor. Women generally move in with their husband's family when marrying. Children are considered to belong to the husband's family, they

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116）(Same as above Commonwealth governance, 2015)
117）(Same as above Commonwealth governance, 2015)
118）(J.E. Pondi,2013)
119）(J.M. Essono, 2016)
120）(Same as above J.M. Essono, 2016)
121）(Le planificateur, 2022)
122）((J.M. Essono, 2016)).
123）(Same as above J.M. Essono, 2016)
124）(Same as above J.M. Essono, 2016)

are expected to help on the farm, do household chores and take care of younger siblings. [125] Mother breastfeed infants and wean them only after two or three years.[126] The average family size in Nkolbisson 6 – 10 people; usually made up of paternal grandparents, parents, and children. Uncles, aunts, nephews and nieces usually live close by. Christian families live in monogamy, with polygamy frequented among Ewondo families.[127] Infant mortality rate is still very high with 65.84 deaths per 1 000 live births[128] and even higher in the rural areas. To increase the probability of grown children, couples are likely to produce many offspring.[129] The total fertility rate is 4.49 children born per woman.[130] Houses are built of mud bricks with aluminum corrugated sheet; the kitchen is often in a separate hut used to cook food and firewood storage. People from Nkolbisson display a general friendliness towards strangers, they are always ready to invite people to join in for a meal.[131]

6. 3 Childcare practices

It is normal for Nkolbisson families to rely heavily on extended family networks in their daily routines, when it comes to childcare. For children, it is natural to grow up among many relatives who share child care responsibilities and to whom children are committed throughout their lives.[132] In Cameroon, there is a well-known proverb that says "*a child belongs to the mother only when he/she is in the womb*".[133] However, from toddlerhood on, children's life is more influenced by peer-groups and siblings than by adults.[134] Fostering childhood is a common practice strengthening family ties.[135] In Nkolbisson, early parenting is primarily geared towards infant survival, focusing on health and motoric development. But parenting is also a communal activity that aims at initiating a fledgling into society by promoting harmonious relationships between family members and the social reference group.[136]

In Nkolbisson, developmental goals are conformity and respect for elder, with the long-

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125） (Keller, 2007)
126） (J.M. Essono, 2016)
127） (Same as above J.M. Essono, 2016)
128） (The World Fact Book, 2007)
129） (J.M. Essono, 2016)
130） (The World Fact Book, 2007)
131） (J.M. Essono, 2016)
132） (Keller, 2007)
133） (Yovsi, 2003, p. 80)
134） (Nsamenang, 2006)
135） (Verhoef, 2005)
136） (Same as above Nsamenang, 2006)

term consequences of developing a cohesive society where members are collaborative and cooperative, responsible for each other, having developed a collective identity with a sense of belonging.[137] From an African point of view, a sense of self is only attained through the community in terms of being interconnected and enacting one's social role.[138] Identity is defined in terms of status in lineage, clan, and community.[139] Development is interpreted as the acquisition and growth of competencies required to fully engage in society and family life. Children are expected to assume social responsibility as a primary value and children's competencies are defined in accordance with their social maturity. Intelligence is conceived as responsibility and social maturity, not an abstract, cognitive ability.[140] Part of Nkolbisson can be considered to represent a typical non-Western society, following an interdependent cultural model aiming at interconnecting individuals in the community. However, influences of the Western world are found in various domains as well. Whilst it is plausible to treat the Nkolbisson people as a community extremely different from Western societies, it is at the same time necessary to take a careful look at variances within the Nkolbisson community. Social changes due to modern globalization seem to have had an impact in the traditional family structure and gender roles.

Siftings observed and described by Mbaku[141] are: a decrease in family size, an increase in female participation in the labor market, the emergence of new childrearing patterns influenced by Western ideals, and accelerated migration from rural to urban areas. The assumption that social changes in Cameroon have consequences with regard to maternal socialization goals and infant development has been proven by Tschombe[142] studying 164 mothers from four different Cameroonian provinces. She compared three generations of mothers, revealing that older generations focused more strongly on obedience and physical health of children whereas younger mothers emphasized cognitive development and the acquisition of new experiences. The older generation believes that children should be seen but not heard. Example: never challenge parental advice. The younger generation of mothers admit children to be seen and heard. Example: they allow children to have an own opinion. Tschombe interprets these findings as an effect of higher formal school levels in the younger generation of mothers.

137）(Nsamenang & Lamb, 1994)
138）(Nsamenang, 2006)
139）(Mbaku, 2005).
140）(Nsamenang, 1992b)
141）(Mbaku 2005, p. 167)
142）(Tschombe, 1997)

6. 4　Research questions

Regarding this study, Bowlby's emphasis on the adaptive value of the attachment system is regarded as central[143] Therefore, it is assumed that the Nkolbisson attachment styles need to be adaptive to the prototypical Nkolbisson environment, where, due to their relational socio-cultural orientation, interconnectedness with others and hierarchical relationships are central aspects of the self and social life; hence, children are raised with obedience, respect for their elders, and responsibility towards others.[144]

The Nkolbisson environment differs substantially from the prototypical Western middle-class environment characterized by an autonomous socio-cultural orientation. Western middle-class parents emphasize individuality and autonomy in the socialization process and focus on the child's personal attributes, preferences and judgement.[145] These contextual or environmental differences imply that the application of one standardized situation, of the *Strange Situation Procedure*, to various cultural contexts can be regarded as futile. The analysis of the Nkolbisson attachment patterns in this study follows a different approach and applies the ecocultural model of child development[146] in order to understand the interrelation of socio-cultural parameters, socialization strategies and child development in the domain of attachment. Hereby, attachment is defined as emotion regulation. The child's ability to regulate his/her emotions in the presence of one or more caregivers during a stressful situation.

(1) Socio-demographic parameters

The comprehensive examination of the socio-demographic parameters of the participating Nkolbisson families are regarded as providing the basic foundation for understanding the adaptation of the attachment system to Nkolbisson environmental conditions. The Nkolbisson environmental conditions –forest, warm and hot climate and the grass fields and mountain locally– led to population parameters characterized by high fertility and mortality rates. The socio-economic structure developed accordingly and resulted in an exchange economy, subsistence-based on farming, a compound-based settlement pattern with large households of extended families. These ecocultural factors differ strongly from the eco-cultural factors that describe Western environments and are considered to shape parental socialization strategies in a way that is different from Western socialization strategies and hence lead to different developmental outcomes. However, in

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143） (Bowlby, 1982a).
144） (Keller, 2007)
145） (Keller 2004)
146） (Keller, 2007)

addition to the general socio-cultural conditions of the Nkolbisson community, this study also scrutinizes individual differences with regard to socio-cultural and socio-demographic parameters within this community. The provision of a general socio-demographic profile as well as the examination of individual socio-demographic differences within the Nkolbisson sample defines the first level of analysis.

(2) Maternal belief systems

The link between the socio-cultural context and developmental outcomes –such as attachment patterns– is supposed to be established through socialization strategies that are provided by cultural models. The cultural model describing the Nkolbisson community is the model of interdependence.[147] Nkolbisson socialization strategies differ from socialization strategies as prescribed by the respective cultural model of independence, the model of Western cultures.[148] Nkolbisson mothers' socialization goals aim at the development of respect, obedience, and social harmony; contrary to mothers of Western cultures who focus on the development of early autonomy and assertiveness[149] In their ethno-theories, Nkolbisson mothers view children as being apprentices that have to be stimulated, controlled and trained. Contrary to this, mothers with an independent cultural model regard children as equal partners in interaction whose wishes, desires and individuality have to be taken seriously.[150] Nkolbisson mothers' parental behaviors with three-month-old infants reflect the socialization goals and ethno-theories in social interactions with their infants. Mothers focus on body contact and body stimulation in contrast to Western middle-class mothers who emphasize face-to-face interactions, object play, and verbal exchanges.[151] Following attachment theories, Cameroonian Nkolbisson mothers' interactional behavior could be classified as insensitive. Therefore, Attachment theorists would predict adverse attachment outcomes for Nkolbisson children. However, in line with Bowlby's notion of adaptation of the attachment system and the ecocultural model of child development, the value of the Nkolbisson socialization strategies has to be assessed with respect to the eco-cultural conditions necessitating them.[152] Moreover, evaluation of the Nkolbisson socialization strategies that incorporate belief systems about attachment are defined as the second step of the analysis. It is hypothesized that, with regard to attachment, Nkolbisson mothers rely on socialization strategies that differ from those of Western mothers, but are

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147）(Keller, 2007)
148）(Keller et al., 2006a)
149）(Kärtner et al., 2006).
150）(Keller et al., 2006a)
151）(Keller, Lohaus et al., 2004)
152）(Yovsi, Keller, 2007)

adaptive in relation to their socio-demographic profile. An additional assumption is that socio-demographic differences might result in variances in socialization strategies.

(3) Children's developmental outcomes.

The final step in the analysis is defined as the observation of Nkolbisson children's attachment behaviors in naturally occurring situations. The hypothesis is that different influences of the socio-cultural context, conveyed through different socialization strategies, manifest themselves in observable developmental differences. Generally, it is expected that within the Nkolbisson community, culture-specific, adaptive attachment patterns differ from attachment patterns prevalent in Western cultures. Simultaneously, the study aims at identifying individual differences of attachment within the Nkolbisson community, which are expected due to naturally occurring variances between individuals. Additionally, the findings support the hypothesis that socio-demographic differences and/or differences in maternal socialization goals might provoke individual differences in attachment behavior as well as an attempt to uncover whether or not these factors account for individual differences within this particular cultural community. Finally, it is assumed that some attachment patterns observable within the Nkolbisson community might be more adaptive than others in this particular environment.

7　Methodology

7. 1　Scope & limitation of the study

Data started being collected in Nkolbisson from early October 2021 to the end February 2022. All participating mothers and children belong to the ethnic group Beti of Nkol Afeme, a bub-division of Nkolbisson. Approaching people was not difficult because all participants spoke Ewondo, the prominent local dialect spoken in Yaoundé. Therefore, recruiting participants on a voluntarily basis was not a hardship. A probabilistic sampling technique was used to recruit a representative sample of mothers to ensure that generalizations derived from the sample were correct.

Families generously presented their birth certificates and children birthday for confirmation. In order to avoid ambiguous religious influences, only Roman Catholic children, which is the dominant religion in the area were chosen. The main objective of the study was carefully and briefly explained as research on child development in Nkolbisson, focusing on the behavior of one-year olds. All contacted family heads (fathers) permitted the data assistant collectors to recruit mothers with infants of the appropriate age. The mothers were given more details about the procedure of the study and agreed to be interviewed. In some cases, they were videotaping of the infant's behavior under the following conditions: 1).

When approached and greeted by a stranger, 2). The infant in everyday situations. A total of 25 mothers with infants of the appropriate age consented to take part in the study.

7. 2　Participants' socio-demographic data

Mothers who participated age ranged from 20 to 40. Many of them had attended school at least up to high school. The majority were high school graduates (18 out 25). Five had attended college, and two went to school but they had never reached high school. The mothers had 3 children in average. Thirteen mothers had only one child, eleven had two children and one mother had four children. Fourteen mothers were married, nine mothers were single parents living with their parents or relatives and two mothers were widowed. Considering mothers' subsistence patterns, six mothers lived of subsistence farming, five worked as seamstresses, six as hairdressers, three mothers worked in a health center, four as civil servant and one as teacher in a kinder garden. The husbands of the married women in the study: five were civil servants, three were farmers; four were long distance bus drivers, one a policeman and one a taxi driver. The demographics for age and education of the recruited mother-infant pairs show the age of mothers giving birth the first time in average of 20 years and most mothers having attended school for 7 years with a mean of 8 years or of formal education. However, in the present sample less than 40% of the mothers were single mothers, which is not unusual to the general demographics of Cameroon. Contrasting the single mothers' socio-demographic characteristics to the married mothers' sociodemographic characteristics revealed differences between the two groups (Appendix 1). The single mothers represented the younger ones at the time of data collection, (20~21 years of age) they were younger at the time of first birth (19 years of age), had fewer children than the married mothers (38%), and the single mothers also differ significantly from the married mothers with respect to formal education (7.7 years). Among the married mothers 42% lived off subsistence farming. The majority of single mothers earned their money as hairdresser or seamstress or health care or government work. The two groups did not differ with regard to residing area (rural or urban).

Family Status	Total=25	100%	Total Number of children= 39	100%	Age of first birth	Number of years of studies
Married	14	56	20	51	22	9.5
Single	9	36	15	38.7	19	7.7
others	2	8	4	10.3	20	7

Appendix 1: Characteristics of participants: married and single mothers in Nkolbisson

All participating mothers and their children did not seem to have any health issue at the time the data were collected. In the sample, infants' gender was almost equal, with thirteen girls and twelve boys. Almost all children were breastfed. One third of the mothers stated that their infants never had any health issues. Two third started that their infants had recently had health problems such as malaria, fever and cough. Of the infants with health problems, some children had at least once been admitted to a hospital during their first year of life due to fever. The days spent in a hospital ranged from 5 to 14. During their stay in hospital, mothers stayed with their children all the time.

7. 3 Procedures

This study's questions are about the cultural shaping of attachment behaviors and the possible influence of maternal belief systems on the development of specific attachment behaviors. The method of choice was a mixed method approach, which combines ethnographic procedures such as video recordings, photographs taken from everyday behaviors as well as behaviors in quasi-experimental settings, psycho-physiological measures, and interview data. Since studying cultural meaning systems requires data assessment settings in which the relevant systems can unfold, an everyday setting with as little restriction as possible was chosen for behavioral observations. This allowed the participants to behave in accordance with their cultural rules and display the typical behaviors of their eco-cultural environment. The methods used were: 1) Questionnaires to collect socio-demographic data; 2) Assessment of infants' emotion regulation by videotaping the infants' reaction towards the greetings from someone they are not familiar with; 3) Naturalistic observation of infants' everyday functioning; 4) Interviews with the mothers to assess attachment belief systems

● Assessing the data within the context

In order to understand attachment, the observation of the behaviors has to occur in their natural environment. Data collectors organized the data assessment as taking place in the infants' everyday environment. For example: inside their family's house, or outside the family house or at the field when the mother works. The infant's ability to regulate his/her emotions in the presence of a stranger was the first step of the assessment.

The data collectors would schedule appointments to visits with the mothers, at a given time of the day. Videotaping taken when communicating with other family members. The target were the mother and the infant. People present were told "they should continue with whatever they did and should not feel disturbed by the presence of the data collectors".

The mothers would be instructed how to behave with the child, or let someone else pick up the child just to see how the child would react. Although children are used to relatives, neighbors and family acquaintances approaching them and picking them up, the idea was to see whether the situation of another person other than the mother greeting the infant within the context of natural interaction would or would not disturb the child to some degree.

The infants' behaviors had to be observed every day, as well as naturally occurring attachment behaviors without prompting such behaviors externally. Therefore, mothers and families were informed that the research team would like to stop by at the families place to visit the infants a few more times at different time of the day. Since these visits were unannounced, the team went to the families' places and tried to locate the infant in question. Often, the infant would be with a different family member each time. In cases where the team found out about the infant's whereabouts by querying people, the data collector team went to the place where the infant was supposed to be. When the infant could be located, one assistant videotaped the infant and everything that happened in the infant's close vicinity for twenty minutes and stayed out of sight of the infant. Again, people present were asked to continue their ongoing activities and not to pay attention to the videotaping or to the pictures that were being taken. The interviews with the mothers and the collection of socio-demographic data did not take place in the infants' everyday environment. Most of the time, the infant would be taking a nap at home.

● Assessment of infants' behavior when meeting a stranger

The first data assessment took place when the child was one year and four months old. Mothers and infants were visited twice, by the data collector team. The two visits took place on different days at around the same time. Each time, the team would greet the mother, family and other people present and told them they were interested in the infant's reaction to the greeting of a stranger and that they wanted the mother to be present during the interaction. The mother and others present received no further instructions on how to behave and were asked to ignore the videotaping as much as possible.

The task was to approach the infant in the presence of the mother, pick up the infant and interact for a few minutes, preferably while one assistant was holding the infant in his arms. This had been practiced by the team a few times before the actual data collection took place. However, the data collector team were free in the exact embodiment of the interaction: depending on their judgement if the infant felt at ease with them, they were free to move around with the infant. They could decide to stay close to the mother, give the infant back to the mother or to somebody else, or simply put the infant on the ground. This situation was

supposed to elicit mild stress in the child, especially in the case when the child was meeting the stranger for the first time. It is, however, a common practice in the area to pick young children up and cuddle them or pass them over to another adult. Therefore, the situation was supposed to be in the range of children's normal experiences. The infants' experience of proximity or even physical contact with strangers was supposed to elicit observable attachment behaviors in form of typical emotional reactions and approach or avoidance behaviors. The visits were recorded on video by the data collector team. Since every infant was visited by the team twice, a total of fifty different scenes were recorded.

● Observation of infants in daily routine

The data collector team visited each of the participating children unannounced, a few more times at different times of the day. The team videotaped the child's activities and immediate environment for half an hour as calm and natural as possible and took notes.

● Questionnaires & interviews

The maternal ethno-theories evaluation was the last step of the assessment while avoiding the mothers becoming aware of the focus on attachment behaviors; it was shaped in a semi-structured interview with all mothers. The objective of the Q&A session was to gather information about prevailing ethno-theories on attachment relationships, attachment behaviors as well as socialization goals in Cameroonian Nkolbisson mothers. The questions were formulated in a culturally appropriate way so that the mothers had no difficulties understanding them. The interview guideline was based on focus groups that were conducted beforehand. Given the fact that people differ according to their social context not only with regard to content, but also in their discourse style[153] made the focus-group interviews indispensable for the development of the interview questions.

The focus-groups involved grandparents (grandmother or grandfather), who were considered to be experts in child raising problems. During the focus-group discussions, the data collector team explained a range of theoretical questions concerning attachment relationships, attachment behaviors as well as socialization goals into Ewondo, the local spoken language. The grandparents as 'experts on child development' were asked about their opinion. They could talk freely about these issues and the discussions were recorded and later translated into English for this study. The discussions would last about one hour per focus-group and each grandmother or grandfather was paid 5.000 Cameroonian francs,

153） (Keller, Hentschel et al., 2004)

$10 (USD) for their participation. By doing so, valuable insights for the development of the interview guideline were secured. Some questions had to be explained as for why they were relevant, and any misunderstanding avoided. The questions asked had to short and precise. The questions guideline toward the mothers can be found in **Appendix 2 A & B**.

　　The interview took place at each mother home while babies were napping. A questionnaire was completed beforehand to obtain socio-demographic information about mother and child. The questions focused on age, education, marital status, subsistence patterns (refer to Appendix 2 B for the full questionnaire). The interviews lasted about an hour and half each and were audio taped. It was an open question interviews form the start focused on the mother's age follow about the pregnancy. Mothers had to be as open as possible by providing details about the pregnancy and the child behavior after birth. At the beginning, some mothers appeared to be shy and less talkative. But they were able to relax and open up. Then they would begin talking about their daily routines, health issues, their objectives about their children and attachment questions were broken down into concrete questions, addressed in short and specific therefore the mother did not seem embarrassed or annoyed while discussing these topics.

　Questions that were first asked dealt with topics such as health problems during pregnancy and after the birth of the infant, the context by which the child was born, any problem occurred during delivery of the child, and the child's health conditions as well. Questions about the mothers and children daily routines were asked. For example, when the mother was at work, who looked after the child, what activities were done together with the child, whether father, grandparents or siblings were around and what their assigned roles were, what the child did from morning until evening. The aim of these questions was to find out who acted as the primary caretaker of the child as well as how many people were really involved in taking care of the child and if there was a clear hierarchy between the multiple caregivers. Questions about socialization objectives and ideal parenting were also asked. For example: the values and habits taught to the child, what a good kid is supposed to be, what vision they had of good parents. These questions helped to understand plans the parents had for their children in general, in Nkolbisson Cameroonian. And what was being done to see those dreams of goals concretely materialized. The main part of the interview consisted of a variety of questions concerning infant's attachment behaviors and their regulation, the role of attachment figures as well as situations where attachment behaviors are typically displayed. Example of questions asked: 1) What does it mean when the child cries? 2) What do you do when the child cries? The aim was to learn how mothers would interpret and react to attachment behaviors and to determine individual differences in the maternal perceptions

and reactions towards attachment behaviors. Each time, the interviews would last about one hour and half. Each mother was gracefully rewarded 30000 FCA, $60 US for voluntarily taking part in the study.

　● Analyzing the interviews

　The method chosen to analyze the interviews was a content analysis.[154] The objective here was to understand the prevailing concepts of attachment, childcare and parenting in the Nkolbisson mothers, as there did not seem be any study focused in Cameroon Nkolbisson mothers on maternal belief systems on attachment. Therefore, it was important to use an approach for the analysis that would allow the setting of categories as close as possible to the original textual material. Content analysis provides two different ways for the definition of categories. It would be either inductive or deductive. This study follows an inductive way, creating categories *bottom-up* from the interview data. The classical procedure to define categories inductively is a step-by-step process.[155]

　Step 1 was to define the research question clearly regarding the development of categories and selection criteria as well as a level of abstraction had to be determined. The main issue consisted of viewing the textual data and creating categories depending on the information collected. Developing a set of categories for the analysis was the main target. **Step 2**, rules were set to determine what was relevant and how to code it. Therefore, relevant information was listed and coded, either by defining new categories or by subsuming new information under already existing categories. When the information collected was thought to be reliable, depending on the question asked, all material was listed and coded and the results were used for a further quantitative analysis.

　The procedure of a qualitative content analysis was applied in the following way:

　(1) First, all interviews were transcribed verbatim from the audio tapes by the data collectors

　(2) Second, in order to structure the material, answers of all mothers to a specific or the same question were grouped together into a new document, resulting in several documents, one per question containing all maternal answers. Thus, the answers collected could be quickly and easily considered at the same time during the process of analysis.

　(3) Third, interview data were analyzed and information units consisting of sets of words or phrases were chosen as an appropriate level of analysis.

154）（Mayring, 2000).
155）（Same as above, Mayring, 2000)

　(4) Fourth, each question, retrieved *bottom-up* from the actual text, information given by the mothers was paraphrased and condensed. The paraphrased information units were then grouped together into categories and this way an inductively derived set of concepts and categories was developed for every question asked.

　Roughly 50 questions of an interview included various topics, such as family status and roles, every day's life (routines) and attachment behaviors, but only questions considered to be of direct relevance to the study question were chosen for further analysis and are presented here. Some of analyzed questions are: Open question (question number 1) - Maternal expression of attachment towards child (question number 40) -Infant's attachment towards mother (question number 45) - Father and child (question number 10) - Exclusiveness of child and carer (question number 22, 23, 24, 25)- Health status of mother and infant (question number 3) - Infant's favorite caretaker (question number 19)

8　Results

8. 1　Mothers' conceptions of attachment

　● Love expressed by the mother

　A high amount of bodily proximity between mother and child, was revealed to be the most significant for the expression of attachment. When asked how they convey the feeling of love they have for their infant, mothers would refer to establishing *a close body contact* between themselves and their child: "*I just hold him close to me.*" (Participant No 20). Moreover, most mothers stated playing with their child while being in close body contact with the child at the same time: "*from time to time*, I *take him, put him on my lap and play with him. That way he feels secured and he is happy.*" And "*I make him to laugh.* (Participant No 15). Breastfeeding was also an expression of love by the mothers, which also include close proximity between mothers and infants. "*When I breastfeed her, she looks at me sometimes she closes her eyes, and I know she enjoys my milk.*" (Participant No 10) As for distal love signs, mothers would buy a toy when they can afford it, or sweeties. "*I like to play with him*" (Participant No 4)

　The figure 1 represent the 25 mothers who took part in the study expressing their love to their infants.
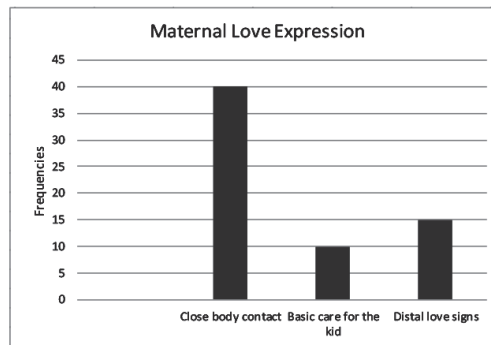
Figure 1: Frequencies of mothers expressing love for their kids

● Love expressed by the Infants

Nearly all mothers could say they thought their children loved them, when asked "can you say your child loves you?" "How can you tell?" As it has been the case with maternal signs of attachment. Mothers thought their children were happy whenever they were being carried in their mothers' arms. (See figure 2) Description of a child happiness when in mother's arm. "*Whenever I hold him in my arms, when he smiles, I can say he loves me*" (Participant No 15). "*From her behavior, I can say she likes being with me*" (Participant No 10). However, whenever the mother has to go away leaving the child behind with another caretaker, the child sometimes cries, which is a separation distress caused by a disruption of body contact from the mother. Mothers described the infants' separation distress as signs of love. "*When I have to away leaving him behind, he sometimes cries. When I take him back, he stops crying, from that it tells me that he loves me*" (Participant No 4). As for distal signs of love, it this less obvious. Some mothers described their infants' behaviors toward them. For example: infants sharing their food: "*When someone in the family gives him some food, he would take some and put in my mouth, as if he tries to feed me*" (Participant No 11).
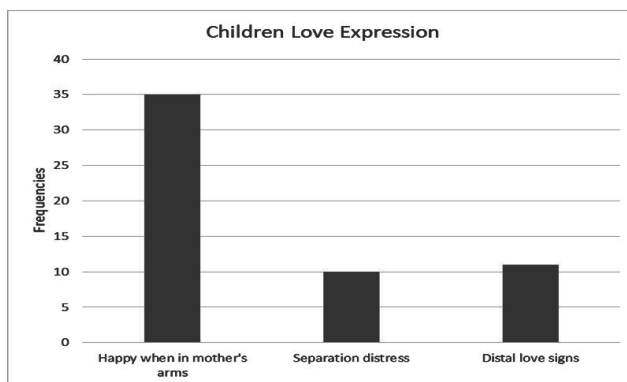

Figure 2: Frequencies of children expressing love to their mothers

8. 2　Mothers understanding of attachment relationships

● The extended family system

During the interview, almost every mother stated that they relied on other family members support for the survival of the infant at birth. The extended family would compose of the father's and the mother's family. The extended family is helpful in the way that they provide a constant support system. For example, in case of an emergency during pregnancy, they would provide comfort and various assistance. One mother said: *"My mother used to come and do cooking or give me message with hot water to give me more energy and strength"*. *"My mother –in-law also did the same. She used to come every week just to check on me to make sure I was health so that when the baby gets born, the baby would also be healthy"* (Participant No 4) *"and when the baby was born, because she had knowledge of traditional medicine, she would come and wash the baby with. In the end the child gets used to everybody"* and all my *nieces and cousins look after the baby,"* she added. When asked about the father's support, most mothers mentioned of the father only as the one who provides financial assistance. The attitude mothers accepted: *"When I was pregnant and even after giving birth, he gave me money to buy some necessities for me and for the child." Sometimes he is the one who did the shopping"* (Participant No 11). Moreover, siblings or neighboring children were also cited to be around and play with the children. Only three mothers reported that fathers participate in feeding or taking care of the child.

● Restricted familial assistance

In order to protect the infant, there are mothers who reported a *restricted familial assistance* system. By this system, they relied exclusively on their close relatives for assistance, or reported to have been dependent on one single person for support. They reported hiring a caretaker, the grandmother, or another close family member they could trust to look after their children. In many instances, some mother had difficulties to pay for the hospital bills or had difficulties to cope with everyday life. As a matter of fact, going to work and having to take care of the baby can be a hardship. One single mother reported not to be happy about her pregnancy, because she was very young and still had to go to school. She assumed that the biological father would not take good care of her and the infant: *"When I knew I was pregnant, first, I didn't tell anybody. Then my mother asked me, I had to tell her. She did not say much. She only asked if I trusted the father"* (Participant No 6). There were mothers who reported that there were days when the child did not want to be carried or taken care of by someone else but the mother herself. In those cases, the mother could not rely on the extended family system. She had to take care of the child by herself and

allowed exclusiveness between the child and herself. Typical statements were: "*If he did not want to be with another person than me, then I had no choice but to take care of him by myself*" (Participant No 9). Allowing a child to adapt to on individual in Cameroon is not very common. Some mothers explained that they did not simply like to see their cry and being sad: "*He would start rolling on the floor crying*" (Participant No 25).

8. 3　Infants' behavior in new environment towards strangers

The way people behave is generally predetermined by their cultural environment. Therefore, it can be assumed that the way a Cameroonian adult behave with an infant he/she meets for the first time will not differ from any other situation. Given the fact that the focus on this part is on the infant attachment behaviors, the emotional behavior of Little Jules (Scene 1) who was born from a white father and a Cameroonian black mother in France had to travel to Cameroon for the first time with his mother when he was one and a half is very important to observe.

First of all, let us introduce briefly Little Jules. Little Jules was born in Herouville, France and has always lived there on the fourth floor of a building that counts seven. His mother (participant No 1) traveled to Nkolbisson, Cameroon in 2020 to visit her relatives, which also happened to be an opportunity to introduce Little Jules to his relatives he had never seen before. His mother graciously documented Little Jules behavior during the month and a half they stayed there on vacation.

● The child emotional reactions and avoidance behaviors

Scene 1　　　Scene 2　　　Scene 3　　　Scene 4　　　Scene 5

Scene 1: Little Jules discovers dirt of Nkolbisson. He is seen sitting on the dirt floor outside his grand-mother's house. The child seems to enjoy sitting on the dirt floor by himself with no body contact. Her mother reported that, since it was the first time Little Jules had had contact with dirt floor, his joy to discover the dirt floor element was palpable. The child was rather curious and attracted by ants and other harmless insects that were roaming on the ground. He did not look frighten by the new environment. From time to time, he tried to imitate the rooster that was crowing in the back yard.

Scene 2: Little Jules is being carried by his grandmother he meets for the first time. In accordance with emotional reactions, approach, and avoidance behaviors towards the "Cameroonian strangers" in this Scene 2, the body contact is established. However, Little Jules did not show any sign of approach or avoidance behavior. He looked happy, smiling, and enjoyed being carried by his grandmother.

Scene 3: Little Jules is with his aunt he meets for the first time. In the scene 3, the body contact was established. Little Jules seemed to enjoy the comfort of his aunt. He did not show any sign of approach or avoidance behavior, despite the fact he had never seen her before.

Scene 4: Little Jules is happily greeting a female relative. In this Scene 4, Little Jules was meeting a relative for the first time. The contact was established, the child was happy to hug and give a kiss on the cheek of this relative he was meeting for the first time. He did not show any sign of approach or avoidance behavior.

Scene 5: Little Jules is meeting a male relative. In this scene 5, Little Jules was meeting this male family member for the first time, ever since he was born. The relative was trying to establish body contact. However, the child was reluctant to even tough this relative's hand. His left hand was retracted against his chest, using it as a body armor. The approach and avoidance signals were obvious in this particular scene. The avoidance was in terms of rejecting this male relative greetings. His mother reported that: "*He tends to avoid engaging with old male he does not know, and nobody really knows why he always reacts that way. He seems to prefer female company because women usually take good care of him*" (Participant No 1).

8. 4　Socio-demographic influence and maternal belief systems

The socio-demographic influences highlighted a disparate group of mothers, defined by weather they were married or single: Married mothers, who were on average older, had more children and lived traditionally on subsistence-based farming; single mothers, who were younger, had less children and lived by means of commercial activities. The two groups of mothers did not differ with regard to education, health status, or residing area. The interview data showed that the marital status of a woman was strongly associated with her benefit from the social support system. The married mothers naturally relied on an extended family system for support, in contrast with the single mothers who reported restricted

familial support. Obviously, when the mothers were married, fathers brought comfort and spend good quality time with their children, compared to fathers who were not married to the mothers.

Regarding attachment issues, a significant difference between mothers who could rely on an extended family network and mothers who had restricted social support was found with regard to the way they expressed their affection towards their infants: Mothers who relied on an extended family system reported to convey their love through close bodily proximity than mothers who reported restricted social support.

9 Conclusion

First of all, I have to admit that there is still a lot of work to be done here. Nevertheless, through this study, the information collected and reported objective is to challenge the universalism of ethological attachment theory. The data give an exhaustive exploratory analysis of the function and the rules of attachment processes in a non-Western socio-cultural environment. We argue that much of the discussion on attachment is obstructed by the dominance of Western culture that is viewed as ethnocentric and bias, particularly from the culturally normative beliefs of motherhood and parent-child relationships.

When looking at the data collected, factual evidence clearly proves that a subtle difference regarding attachment in a non-Western environment bear results that are not compatible with attachment theories assumption of normativity and sensitivity. We further argue that in order to understand the function and regulation of attachment within a given and specific socio-cultural context, a minimum of three different levels of analyses have to be considered: Socio-demographic parameters, maternal belief systems as well as infants' emotion regulation competencies. Therefore, attachment theorists should broaden their view on attachment relationships beyond infant variables to include maternal interactive behaviors and the respective belief systems. This study proves that patterns of attachment must be considered as adaptations to contextual requirements. Attachment maybe rooted in universals principles, attachment relationships are contextually structured and genetically acquired. Identical behavioral patterns carry meanings that can only be understood within their socio-cultural environment. The nature of human attachment has to be treated as a complex phenomenon with a biological basis that is socially structured and made meaningful only through culture.

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Appendix 2-A: The Socio-Demographic Questionnaire for mothers

1. Name：..............................   2. Age in years ....   3. Place of birth ....
4. Economic activity ....   5. Religion ....   6. Years of schooling ....
7. Marital status: Married ☐   Widowed ☐   Divorced ☐   Single ☐
8. If married, your husband's occupation? ....
9. How long have you been married? ....
10. Your actual residence, do own it? Yes ☐   No ☐   Do you rent it? Yes ☐   No ☐
11. You do you live with? Husband ☐   Grandparents ☐   Siblings ☐   Other ☐
    (Please precise):
12: How many children do you have? .... If more than one, how old is your elder child? ....

Appendix 2-B: Interview guideline:

Title: Please tell us about and your beautiful children.
The intention is not to judge you and your family, not to judge you about how you live your life or about how you raise your children. We would simply like to know about you and your children (family) and gather as much information as possible about what is like to raise children and look after your family in Nkolbisson.

Part 1: Mothers and their pregnancies
1. How did your pregnancy go from early stage to delivery?
2. Where was this child born?

3. Did you have any complication during the delivery?

Part 2: infant health

1. How is your child?

2. Has he/she ever been sick ever since he/she was born? - If yes, what did he/she have?

3. Has he/she been hospitalized? - If yes, how long? - Could please tell us about his/her disease?

4. Is your child under medication at the moment? - If yes, what kind of medicine does he/she take?

5. When your child gets sick, who do you go to?

Part 3: Infant nutrition

1. Do you still breastfeed your child?

2. How often do you breastfeed him/her per day?

3. How important is to breastfeed the child?

4. Does he/she sleep well at night?

5. Who does he/she sleep with?

Part 4: Mother daily routine

1. How do you begin your day?

2. How many hours do you work per day?

3. Who do you live with?

4. How do you often end your day?

5. Do you get enough sleep at night?

6. Do you think you are a good mother?

7. When you need advice about your child, who do you go to?

8. Does you and your husband or else sometimes argue violently in front of the child?

Part 5: Infant behavior

1. Does he/she cry a lot?

2. When he/she cries, what does that mean?

3. Who does he/she like to be with best?

4. How do you know he/she is not feeling good?

5. What does good or bad child mean to you?

6. How can you tell he/she loves you?

7. How can you tell the child is happy?

8. When the child does not want to be with anybody else but you, what do you do?

Part 6: Taking care of the infant

1. Apart from you, who else take care of the child?

2. Are all caretakers members of your family?

3. What habits (if any) to teach the child?

4. Other than you, who does he/she seem to like being with? Why?

5. What does the child like to play with?

6. Are toys important to the child?

7. Is it necessary to talk with the child?

8. What do you wish for your child in the future?

9. How does he/she react whenever you have to go somewhere leaving him/her behind?

10. How can you describe the father attitude toward the child?

11. Is his/her father, a good or bad father?

12. How do you carry your child? On your back? Hand? Side? Why?