

ANTHROPOLOGICAL PERSPECTIVES ON INFANTICIDE

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ABSTRACT: Infanticidal behavior has been very common through-out human history. It is suggested that progenicidal behavior, whether consciously or unconsciously practiced, be defined and considered within a cultural, ecological and historical matrix in anthropological studies. Sociobiological and materialist interpretive models are considered too extremist by many anthropologists. Both approaches have an inherent tendency to treat "culture" as a subsidiary variable in infanticide, rather than as encompassing progenicidal phenomena and strategies. A useful conceptual framework with which to approach data collection is one where individuals negotiate progenicidal and child care decision-making within a sociocultural, ecological, technological, demographic and economic framework.

INTRODUCTION

Infanticide has been identified in non-industrial populations ethnographically, ethnohistorically and archaeologically (e.g., Brothwell 1971, Bugos and McCarthy 1984, Carr-Saunders 1922, Devereux 1975, Divale 1972, Krzywicki 1934, Langer 1974, Sargent 1988, Shostak 1981). Its occurrence is not, however, limited to non-industrial groups and every phase of Western history has its own examples (e.g., Aries 1962, Damme 1978, Rosenblum and Budde 1982, Rose 1986, Sauer 1978). Infanticide is said to have been practiced extensively by humans at least since the Upper Paleolithic (Birdsell 1968, Carr-Saunders 1922), and has been described as "the most widely used method of population control" in human history (Harris 1977:5). More moderately, infanticide "...rather than being an exception ...has been the rule" (Williamson 1978:317). There is reasonably good evidence that even if infanticide is not a cultural universal that it is close to one (Whiting et al. 1977, Divale and Harris 1976), although prevalence levels show marked variation between societies (Levinson 1989:25,81).¹

This paper is concerned with describing the features of anthropological perspectives on the investigation and interpretation of human infanticidal behavior. First, key terms are defined; next, analytical approaches that have most often been applied by anthropologists investigating these phenomena are described. A discussion of the problems embedded in analytical frameworks previously applied to the anthropology of infanticide concludes this paper. This discussion is used as a springboard to suggest avenues for future research on infanticide.

WHAT IS INFANTICIDE?

In the strictest sense, infanticide is the deliberate and conscious killing of a child between birth and age one. From an anthropological perspective there are several conceptual difficulties with this narrow definition; these have generated far broader classifications of what

¹ That is, societies may be "infanticide tolerant" or "infanticide intolerant" (Scheper-Hughes 1987:13).

constitutes infanticide and infanticidal behavior. Firstly, it is noted that the line between abortion and infanticide is not a clear one (Minturn and Shastak 1982, Polgar 1972, Scrimshaw 1984, Williamson 1978). For example, among the South American Yanomama, labor may be induced at the sixth or seventh month of gestation and the fetus then killed if it showed life when it emerged (Neel 1968). Therefore, Hrdy and Hausfater (1984:xiv) define infanticide as "...any behavior which makes a direct or significant contribution to the immediate death of an embryo or newly hatched or born member of the perpetrators own species." Secondly, infanticide may not always be the result of direct and conscious behaviors if infanticide is considered a process that operates at the group level. Thirdly, associated with this, behaviors that decrease the chances of a progeny's survival may not occur or manifest immediately around parturition or even in the first year of life.

In anthropological investigations it is helpful to distinguish between "deferred" or "delayed" infanticide (Johansson 1984; Minturn and Shastak 1983; Scrimshaw 1983) and direct, immediate infanticide; immediate infanticide being consciously carried out at or near the time of parturition. The concept of "deferred infanticide" involves the notion of child "neglect," when less child care is given than could or should be (Scrimshaw 1983). "Benign neglect" (Cassidy 1980), also referred to as "masked deprivation," "passive infanticide" (Prough and Harlow 1966), or "underinvestment" (Dickemann 1975, Scrimshaw 1983), is "unconscious" and not practiced deliberately (Harris 1977:258). Neglect can also be aggressive and therefore consciously practiced (Dickemann 1975) -- such as physical abuse.² Some scholars (Miller 1981:45) choose to draw a particularly clear behavioral distinction between child neglect (as what is not done), and child abuse (as what is done).

There is considerable debate in defining exactly what parental behaviors constitute neglect and abuse. Ethnocentrism has been cited as a problem in defining the presence and extent of child neglect in non-western societies (Nations and Rebhun 1988). Scrimshaw (1983:716) defines infanticide as any "combination of medical, nutritional, physical or emotional neglect of an infant or young child in comparison with other children in the family or other families in similar socio-economic and educational circumstances." Each culture "maintains concepts and definitions of behavior that are beyond the standards of acceptable behavior" in the treatment of children (Korbin 1981:206). It is vital to note that neglect is thus a *relative* term to both the culture and to the circumstances of the individual family.

Child abuse and neglect can also be delineated as "nonselective" or "selective" (Scrimshaw 1978). Selective neglect refers to the targeting of specific groups, usually of females (Miller 1981:45), that forms the basis of a demographic phenomenon termed "excess female mortality" (Harris and Ross 1987, Johansson 1984).

Dickemann (1984) collectively calls the range of related possible infanticidal reproductive manipulations "foeticide-infanticide-pedicide." McKee (1984:91) refers to this whole complex as "progenicide": "any act, collective or individual, that is carried out in accord with cultural norms and, though delayed in its effects, *functions selectively to reduce the*

² This is also referred to as malign aggression or conscious neglect (Harris 1977:258)

probability of survival of the offspring" (emphasis in original).³ Thus, some definitions consider it useful to consider abortion, infanticide and pedicide as related behaviors that differ only in the point on the reproductive continuum at which parents rescind investment (Scrimshaw 1984).⁴ In this way, the definition of infanticide expands in one direction to entail abortion as one possible form, and in the other to include certain forms of maltreatment-associated child death as another. Current anthropological definitions of infanticide emphasize perceptions of gestation, birth and child development as intrinsically related biocultural processes that do not have a definite start or end point in relation to each other (Harris and Ross 1987; Polgar 1972). These separate processes can be interrupted at any point in the continuum.

Given the very broad definitions of infanticide outlined above, the offspring at risk is not only an infant. Rather it is the embryo-fetus-neonate (Jordan n.d.), or probably even the embryo-fetus-neonate-child (EFNC). For this reason, in this paper the terms "infant" and "infanticide" are taken to apply to pre-natal as well as to ages above one year, i.e., to include all the early points on the child development continuum.

Data on immediate infanticide are somewhat sparse. Few studies have deliberately and systematically set out to study the phenomenon, and there are notable problems in obtaining reliable, systematic data on deliberate infanticide. It is characteristically a non-public behavior, where parental disclosure may not be forthcoming and observation of the event impossible. The lack of precise quantitative data is a frequent criticism of studies of infanticide (Lancaster and Lancaster 1978; Scrimshaw 1984:247). One response to this has been the use of simulation techniques to test and expand empirical data bases (e.g., Chapman 1980).

Reliable data on deferred or delayed infanticide can be even more difficult to obtain, given the very ambiguous nature of associated parental behaviors. The evidence of "selective neglect" is largely circumstantial, anecdotal or second-hand (Bugos and McCarthy 1984; De Meer 1988; Nations and Rebhun 1988; Scheper-Hughes 1984). The main body of evidence may be differential gender mortality or morbidity as represented in sex ratios and adult-child ratios (e.g., Helm 1980). Often the occurrence of indirect/neglect based infanticide is a matter of a researcher's own inferences derived from observation of parental behavior (Scrimshaw 1984:454), rather than from direct and prolonged observation of systematic neglect. Even the most substantial studies of such phenomena that are currently available (Scheper-Hughes' 1984, 1985, 1987; Nations and Rebhun's 1988) could be critiqued on this point. It is almost impossible to obtain systematic and objective data.

Furthermore, where child neglect is implicated it can be difficult to substantiate causal

³ McKee's definition is a useful one because it labels "progenicide" as non-pathological. In cases where less child care is given than should be, that infanticide is heading toward socially defined pathology as opposed to socially sanctioned behavior. This is an important delineation in examining the cultural specificity of patterns of infanticide (Korbin 1981).

⁴ It should be noted that, from an anthropological perspective, infanticide is generally perceived as a parental behavior, rather than the homicidal act of any individual on an infant.

relationships. For example, a child systematically denied sufficient dietary protein may suffer from severe episodes of diarrhea that result in death by dehydration. In such cases, the causal connections between care-giver behavior and child death may be difficult to estimate retrospectively (e.g., McKee 1984).

ANTHROPOLOGICAL MODELS FOR THE INTERPRETATION OF INFANTICIDAL BEHAVIOR

Anthropological approaches to infanticide tend to emphasize functional and adaptive considerations. Two main theoretical/interpretational models have emerged, one based on a materialist perspective, the other drawn within a sociobiological framework.

Materialist models

Materialist models of infanticide emphasize functional aspects of population regulation, whereby infanticide provides the means for a demographically or socially adaptive system.⁵ Fertility/mortality regulation are interpreted primarily as ends in themselves, or, indirectly, as ways in which female survival to reproductive age is affected. Materialist models emphasize infanticide as a system by which individual's, or population's, long term reproductive success is maximized by providing flexible means to manipulate birth rates, sex ratios or social structure (Harris 1977, Harris and Ross 1987). Materialistic approaches often emphasize adult roles in society with reference to the development and maintenance of female-selective forms of infanticide. Adaptationist approaches often choose to emphasize the general preponderance of female infanticide victims as a means towards making broader statements about the nature of adult female status and its relationship to economic concerns (McKee 1984). This places priority on linking a socially-promoted desire for male offspring to the devaluation of women in economic terms (Martin and Voorhies 1975; Sacks 1979), or to the need to rebalance the sex ratio in populations where adult male mortality from warfare is high (Divale and Harris 1976; Harris and Ross 1987; cf. Hawkes 1981). For example, Divale and Harris (1976) postulate that there is a need to devalue females in order to sustain and support systems of inter-group conflict, the whole being a phenomenon referred to as the "male supremacist complex" (also Harris 1977). Numerical or density-oriented population regulation, however, is not a centralized issue in most materialist models. For example, Freeman (1971) argues, from an Inuit case, that the "adaptive significance" of infanticide may in fact be "customary behavior" linked to the dominant roles of males in a society.

Sociobiological models

Sociobiological models of infanticide stress the distinction between infanticide as pathological behavior and infanticide as an adaptive response to the need for population size and density regulation. The sociobiological argument that infanticide is "natural" (read "common") in a wide variety of species has led to the assumption that infanticide is a "protean phenomenon," which -- although it varies significantly between and within taxa -- has an overriding adaptive and functional significance (Hrady and Hausfater 1984:xviii-xix). However, the adaptive value may not occur at the population level. Hrady and Hausfater

⁵ The argument that infanticide is a population regulation mechanism has been made by Birdsell (1972), Carr-Saunders (1922), Davis and Blake (1956), Ford (1964), Krzywicki (1934), *inter alia*.

(1984, also Hrdy 1979) promote the idea that the population-regulating aspect of infanticide underestimates the "adaptive advantage" of the behavior for the individual parent or immediate family. In one example of a sociobiological interpretation, Daly and Wilson (1984:488) choose to emphasize psychological rather than behavioristic aspects of infanticide, arguing that "parental inclination varies adaptively"; that is, infanticide occurs where it makes adaptive "sense" to one or both parents -- such as where a child is considered to be of "poor quality" or to have inappropriate paternity.

GROUP VERSUS INDIVIDUAL INTERESTS

There are clear problems in delineating between infanticide as a family or individual level phenomenon (Balicki 1967, Daly and Wilson 1984, Scrimshaw 1983), and arguments oriented to population level analysis. As a population density or size control mechanism (following Carr-Saunders 1922) the decision to implement infanticide usually rests within the nuclear family unit, but the possibilities for the behavior are dictated within a sociocultural matrix. For example, Dickemann (1975), following a sociobiological perspective, argued for a strong "group-selectionist" (population level) aspect to infanticide, but has subsequently (1979, 1984) argued that the functional and adaptive significance of infanticide operates at an individual or family level. She tells us "...like other acts of reproductive management, infanticide-pedicide seems to be best understood...as a parameter of interindividual competition for the population increase of genes in the next generation, not their delineation" (Dickemann 1984:436). That is, people act to ensure or maximize their long term reproductive success. The argument about whether infanticide is adaptive at the individual/nuclear family level or at the population level is a vital one in deciding whether population regulation models adequately explain infanticidal practice. Dickemann (1984:437) points out that evidence for reproductively altruistic acts in humans is slim. This idea is also expressed by Balicki (1967), who argues that among Netsilik Inuit infanticide is a nuclear family decision, mediated by the concerns of the mother and the male family head. Bugos and McCarthy (1984) similarly conclude that infanticide is best perceived in terms of individual adaptation from quantitative data collected in Ayoreo society (Northern Paraguay).

The functional arguments of infanticidal behavior are very difficult to test, even though the extant data seem to support the individual perspective better. As Miller (1981:44) argues:

"...exactly *why* a certain target group is named within any culture cannot be answered, for any many cases it may be arbitrarily assigned....[but] the possibility looms that [the] occurrence [of systematic infanticide] may have significant demographic repercussions, whether or not those consequences are recognized and valued by the groups involved."

Thus, defining infanticide is one thing but explaining the *function* of the practice is quite another (Chapman 1980:326). What is widely, and realistically, held is that infanticide needs to be considered as broadly as possible within an historical, ecological, economic, social, cultural, psychological, medical, epidemiological and demographic matrix (Acker and Townsend 1975, Chapman 1980, Hawkes 1981, Helm 1980). Thus, the study of infanticide is best suited to a multi-disciplinary and multi-faceted biocultural approach, that gives credit

to the cultural construction and regulation of infanticidal behavior.

THE CULTURAL CONSTRUCTION AND REGULATION OF PROGENICIDE

What emerges from the discussion of individual and group interests in infanticidal strategies is -- even given the difficulty in collecting non-ambiguous data -- that neither the sociobiological nor the materialist approach is exhaustive as an explanatory framework. From the perspective of biocultural anthropology, the most useful conceptual model is one where infanticidal behaviors are considered culturally constructed and regulated. Furthermore, individuals mediate and interpret cultural proscriptions for progenesis in terms of their own needs and desires -- be they psychological, economic, social and so on.

Even in societies where both abortion and infanticide are legally, socially and morally sanctioned, either practice may manifest in various forms -- often indirectly through ambivalent attitudes to pregnancy maintenance or child care (e.g., Browner 1986, Browner and Perdue 1988). Further, in cases where direct and conscious progenesis is sanctioned, there are social "controls," in various forms, that dictate appropriate circumstances and timing for the practice, even though the decision to implement may not extend beyond the immediate family group. Cultural sanctions exist to describe "who" may die, and "when" this may occur, who may make or mitigate a decision and who may implement the decision. Thus:

"It is culture that "invents" the reasons for which some children who are born are not desired. Second, it is culture which sketches the outlines of the group that is to be the target of infanticide (Miller 1981:44)."

Defining "who" may die

Codings of infanticide have been developed to delineate motivational categories of the behavior (resource competition, reproductive competition, social pathology, etc. [Dickemann 1984, Hrdy 1979, Hrdy and Hausfater 1984]). Other codings of infanticide maintain less emphasis on functional interpretations and focus on classifying the practice in terms of characteristics of the EFNC or its family that may trigger the behavior or mark certain offspring as "at risk" for infanticide. The classification of some offspring as potentially disposable while others are not is directly related to the means by which society determines the importance or potential value of its members. Disposable offspring are, in some manner, "socially defective."

Characteristics of the offspring or birth that are commonly cited as determinants of its "wantedness" include birth order and timing, number of surviving siblings, sex (including as related to sex composition of the family), specific characteristics of pregnancy or birth (such as deformity, twinning, illness, or illegitimacy), and less tangible features such as whether the child is considered "difficult" or unattractive (Daly and Wilson 1984, Granzberg 1973, Scrimshaw 1978, 1984, Williamson 1978, Whiting et al. 1977).

One of the key themes that is often repeated in analyses of ethnographic data is that "different" children are far more at risk than those that display "normality" (e.g., Fischer 1968), although what constitutes "normal" is, of course, culturally constructed. In an analysis of HRAF data, it was found that the three most prevalent reasons for immediate "normative" infanticide are illegitimacy, physical defects and "family planning" (Whiting et al. 1977), with

"deformity" being the most prevalent cross-cultural marker for risk (Williamson 1978:64). However, not all of these features of an EFNC are motivating characteristics in any given society, and in any given situation certain markers may either be drawn on as a motivating factor or the marker may be "ignored" and the child will not be targeted. For example, it has been noted that where women give birth in relative privacy or alone, they have more flexibility to decide whether a neonate fits the conditions specified as "defective" (Bugos and McCarthy 1984, Sargent 1988).

Simply describing the markers that target specific offspring is insufficient to understanding how people, both as individuals and members of society make decisions about their offspring. The value of EFNC life is imparted from cultural definitions and comprehension of when life begins, when an individual is a person or a human and associated ideas of when birth occurs or gestation begins.

Defining "when" the death may occur

Overt and direct progenicide, where it is culturally sanctioned, often has a clear temporal component that defines when the practice may occur. That is, the "...definition of when life is taken usually depends on a cultural definition of when life begins" (Scrimshaw 1983:246). Overt and culturally sanctioned infanticidal acts almost always occur within one or two days of birth (e.g., Dickemann 1984, Hrdy 1979, Minturn and Shastak 1983, Scrimshaw 1983, 1984), although exceptions do exist (Whitehead 1968). Where infanticide may be actively practiced well beyond the time of parturition, its limits seem to correlate closely to ritual/ceremonial occasions marking specific life-stage transitions (Minturn and Shastak 1983). The upper limit for "active"/deliberate infanticide seems to be around two years cross-culturally and almost without exception, overt (non-pathological) infanticide is practiced early in life, before the transition of the child to some standing of social importance has been made (Scrimshaw 1983:246).

In all societies "humanness," "birth," "personhood" and "life" are not attained or occur simultaneously at a given point in development. In fact, "...not all persons are living humans, or indeed, human at all, nor are all human beings persons" (Harris 1989:602). There is a clear temporal aspect to the attainment of such levels. As individuals develop and age and move through a social career at various times their status as human and person can change. Thus, "...even if he or she becomes a person, personhood may be partly or fully rescinded later" (Harris 1989:604).

Although the definition of when "personhood" is attained is certainly culturally specific (Shweder and Bourne 1984), definitions of what constitutes humanness-personhood can be attempted. Harris (1989:602) defines a "human person" as a "human being publicly considered as an agent [where]....to be a person means to have a certain standing (not 'status') in a social order, as agent-in-society." Philosophical approaches to defining "what is a person" often invoke the need for rational thought or a functioning brain as necessary requisites, such definitions make little sense from an anthropological perspective as they minimize the notion of the cultural specificity of the construction and regulation of infanticidal behaviors.

Conceptual differentiation can also be made between "human-beings" and "persons." Jordon (n.d.) argues that, although both categories are cultural constructs, being recognized as "human" does not imply any social, moral or legal status but the "person" represents a

moral definition that supplants biological status. This roughly equates with the transition from embryo/fetus/neonate to "baby." Personhood can also be defined as being attained at or around the transitional point where the individual shifts from complete control by associated individuals (such as parents) to having the group's/society's/state's full protection. That is, personhood implies increasing judicial rights where humanness does not (Damme 1978, Shweder and Bourne 1984). Thus, being human does "...not necessarily establish a moral bond between individuals, nor does it provide an abstract standard against which all action can be judged" (Shweder and Bourne 1984:261).

In many groups there are significant points at which the transition from potential person to person may be culturally specified and hence identified. This may be the time that a mother emerges from the birthing hut (Howell 1979, Shostak 1981 on the !Kung), after first nursing (Johnson 1981 for the Machigenga), when the child is named (Lutz 1985 on the Ifaluk, Sargent 1988 on the Bariba), looks as if it may survive (Gray 1982 on the New Guinea Enga), eats its first cooked meal (Romanucci-Ross 1979 on the Admiralties), reaches the first birthday (Carucci 1985 on the Marshallese), or begins to walk or talk (Bugos and McCarthy 1984 on the Ayoreo).

This temporal dimension is crucial. Attainment of personhood may be determined or marked precisely by ritual acts (such as birth, initiation ceremonies, naming) or it may be achieved more gradually and in stages (Harris 1989, Howard 1985, Poole 1985). As Howard (1985:414) put it, personhood is often "...a matter of more-or-less rather than either-or." In many cases newborns occupy an equivocal category somewhere between humanness and non-humanness (Bugos and McCarthy 1984). For example, in Bariba society the decision about whether or not a child is to be labelled as a "witch", and therefore if it should live or die, is an ongoing process related to the state of the individual at birth and during development -- such as interpreted from the eruption pattern of dentition (Sargent 1988). That is, just as there are progressive stages of increasing acceptance of a child as an increasingly important and maturing social actor, there are also key signs of faults in this process that can target a child for infanticide.

Despite the search for adequate utilitarian definitions of personhood, humanness and so on, the cultural relativity of these concepts make their delineation problematic. Howard (1985:413) points out the difficulties in defining "personhood" in any given cultural group, given the abstract nature of the concept and the need to reach a workable definition through the analysis of multiple terms. He emphasizes the oppositions that are central to such a definition: human/non-human, infant/adult, live human/dead human, and so on. It should be noted that ethnographic accounts that mention how and when individuals attain personhood and humanness often use the terms interchangeably or ambiguously. For example, Poole (1985:191) describes how the Bimin-Kuskusmin of the West Sepik kill one twin at birth "for they are not believed to be properly human or to be endowed with the essential foundation of personhood." Further, Tooley (1983:35) in an extensive (philosophical) discussion of how and when foetuses become "people" makes that point that "person" is generally a descriptive term, and that there are significant problems when it is used evaluatively. He usefully suggests that one means of unravelling the intricacies of defining when personhood is attained may be to approach the problem through the back door by focusing on when an individual ceases to be an person.

PARENTAL BONDING AND INFANTICIDE

An interesting conundrum that has emerged in recent discussions of progenicide concerns the manner in which maternal and paternal bonding acts within a system of direct or indirect infanticide: The question being if and how such behavior manages to subvert or overcome parent-child bonding. Selective neglect can be posited to be one way that parents maximize the survival and health of as many children as possible given the family circumstances (Scheper-Hughes 1987:8, cf. Miller 1981:44). This adaptationist argument has been made most explicitly by Blurton-Jones and Sibly (1978), who posit that !Kung mothers maximize their long-term reproductive success by spacing births through infanticide. That is, by utilizing such a strategy child survival to adulthood is actually increased rather than suppressed.

Under the "adaptive" models of progenicide in non-anthropological societies, differences in the attainment of person and human status are often perceived as reflections of the ways people reduce the "psychological stress" (Harris and Ross 1987:26) of killing their offspring, and hence culture in some manner supersedes biological "bonding." This is a somewhat unidirectional argument in that it perceives the cultural construction of allowable infanticide as necessarily *following* the adaptive necessity of the act. Hence, a strong notion of "justification" is built into the models.

There is significant debate about the timing and manner in which maternal and paternal bonding occurs. Piers (1978) uses a psychological argument to explain infanticide as the result of a poor object-attachment of a mother to her offspring. In much the same vein, Scheper-Hughes (1985) argues that Brazilian mothers have an impersonal and indifferent attitude to unhealthy or vulnerable children that causes them to withdraw attention from the children that require it most -- usually those who have the symptoms of chronic hunger. This maternal detachment can synergistically lead to child death. Thus, Scheper-Hughes argues that mothers "...protect themselves from strong, emotional attachment to their infants through a form of nurturance that is, from the start, somewhat 'impersonal'" (1985:311). She poses that models of "...innate maternal scripts such as 'bonding,' 'maternal thinking' or 'maternal instincts' are both culture and history bound" (1985:310). She stresses that although Northeast Brazilian shantytown women do feel the loss of their children, they embody a fatalism to child life and death that is culturally defined and protects the women from the impact of high rates of child death in an area where child survivorship is very low (Scheper-Hughes 1984). This idea is repeated by Rose (1986:5), who argues that the value of infant life is closely correlated to "contemporary attitudes to the inevitability of death."

Nations and Rebhun (1988) disagree with Scheper-Hughes' model of maternal detachment and delayed mother-child bonding. Also drawing from data collected ethnographically in Northeast Brazil, they alternatively interpret maternal detachment to child death as a coping mechanism that indicates the extreme pain associated with the death of any child. Thus, there is a strong emotional commitment to offspring "whether living, dying, or dead" (1988:158), and the detachment that women display is a reflection of the "flat affect when discussing painful subjects" (1988:158). Thus, the lack of public display of grief associated with the death of a child is a *temporary* break of the emotional tie, rather than exemplification of the lack of such a tie (1988:163). Part of Nations and Rebhun's (1988) most concerted attack on Scheper-Hughes' (1984, 1985) is on the issue of *doença de criança*,

a syndrome represented by a cluster of childhood symptoms that mothers do not actively seek to cure as the child is considered to be well on the way to dying. Scheper-Hughes sees the behavior as the result of an autonomous maternal diagnosis that may actually engender, rather than follow, child risk that is allowed by a delay in maternal bonding. Thus, "...what makes this possible is a cultural conception of a child as human, but significantly less human than the grown child or adult" (1985:312). Nations and Rebhun (1988:158) interpret this pattern very differently, arguing that as *doença de criança* is a condition that can occur up to around seven years of age that delay in maternal bonding can hardly account for maternal behavior. Rather, they posit that the folk system actually maximizes its efficiency by assisting women to make such a diagnosis in cases where children are very likely to die even with intervention. A similar line of argument is drawn by Gray (1982) in discussing the Enga (New Guinea) case. He argues that the tales parents told of their reunion with and forgiveness of abandoned children seemed to "...express the unhappiness and sense of wrong-doing felt by parents who believed they had no alternative, but to kill one child in order that another may survive" (1982:83).

CONCLUSIONS

Problems in anthropological studies of progenicide

Although there are problems in obtaining direct, reliable data on infanticidal behavior, there is little doubt that the practice has been very common through-out human history. This is one area of investigation that can benefit from a multi-perspective approach that allows different forms of progenicidal behavior, whether consciously or unconsciously practiced, to be defined and considered within a cultural, ecological and historical matrix. The physical and social conditions whereby a mother and infant interact and the predictability of that environment must be understood.

It is interesting to note that the two primary interpretive models that have been applied to the anthropology of progenicide - sociobiological and materialist - are considered to be rather extremist by many anthropologists. In fact, the nature of infanticide makes it of central import to these two theoretical camps, and hence it is given a primary consideration in model building. Furthermore, both approaches have an inherent tendency to treat "culture" as a subsidiary variable in infanticide, rather than as encompassing progenicidal phenomenon and strategies. Increasing interest in progenicide by scholars who are not firmly in either camp will do much to address this balance, and will provide alternative models that will focus on culture as a crucial variable rather than as an associated feature of progenicidal systems (e.g., Nations and Rebhun 1988). Given the manner in which culture both constructs and regulates infanticide and child care both directly and indirectly, pigeon-holing "culture" to explain how parents reduce the "psychological stress" of "having" to kill their infants is not a fruitful avenue of inquiry. As outlined earlier, a useful conceptual framework with which to approach data collection is one where individuals negotiate progenicidal and child care decision-making within a sociocultural, ecological, technological, demographic and economic framework.

Part of the problems faced in the anthropology of progenicide has stemmed from a lack of utilitarian definitions of pathological and non-pathological infanticidal behaviors and of child abuse and neglect within the framework of underinvestment. Definitions of child abuse and neglect, as well as interpretations of child care practices, need to be very carefully

considered in any investigation. This is the central value of the study of Nations and Rebhun (1988), which points out that the observer's bias in labeling that which constitutes neglect is crucial to determining whether neglect exists at all, and hence whether a progenicidal system is even in operation.

Suggestions for further research

Such studies as Nations and Rebhun (1988) provide the semblance of a good protocol for studies of progenicide and child abuse and neglect. Nations and Rebhun have integrated a multi-disciplinary perspective by collecting and evaluating ethnographic, historical, demographic, medical, and ecological data on child health and child, placing priority on the socio-cultural context of behavioral observations. Inter-family and household comparisons may provide the key to examining the actual impact of differential child care and reproductive strategies on child morbidity and mortality. For example, Scheper-Hughes (1984, 1985, 1987) is interested in how observed maternal behaviors, that she interprets as selective child neglect, impact on infant mortality levels. Without measurable indices of impact on demographic regimes such arguments remain incomplete in terms of their broader explanatory power and it cannot be known if they are having any significant impact on child death rates. Increasing concentration on the family, rather than the mother and child, as the interactive unit may provide interesting and elucidatory data.

A fuller understanding of the anthropology of progenicide and child neglect is not going to be attained through a few case studies. What is called for is extensive multi-approach data collection in populations existing in disparate ecological, epidemiological and economic circumstances. Until such a body of data is available, definitive tests of hypotheses concerning the nature of group and individual reproduction maximization strategies is problematic. Similarly, true tests of the nature of parental bonding will be difficult to obtain. Both these are crucial to a fuller understanding of the nature, development and functioning of progenicidal systems in human groups.

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