

PROCEEDINGS IN NATURAL

*A History of  
Mothers, Infants, and  
Natural Selection*

Sarah Blaffer Hrdy

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...usually referred to as  
reason breast-feeding  
ns of birth control is  
responsive to maternal

ad over a minimum of  
iteen months.<sup>46</sup> But it  
er is sedentary, less if  
r if she is jogging ten  
o grueling workouts,  
ice. Exercise notwith-  
al independence the  
y sucks. But frequency  
ule, how far she has to  
or leaves him behind.  
ody goes by how fre-  
chedule.) When there  
safe place apart from  
ust of necessity occur  
may begin menstruat-  
wever, women nutri-  
m breast-feeding her

depletion makes them  
rest of Zaire confided  
here in Africa, among  
eking wives for sons  
slump and who reach  
Monique Borgerhoff  
most fertile.

...arduous trek worthwhile. Most such choices in the Pleistocene, however,  
were even harsher. The baby of a mother who miscalculated the time to wean  
probably died.

Some environments were safer than others. Anthropologist Nick Blurton-  
Jones and others have called attention to the harshness of the climate in a  
desert locale like the Kalahari, the ease with which a wandering child might  
become lost in the vast, featureless flatlands; the sheer distances involved. A  
gathering woman could not but take her infant with her. Yet she also paid  
dearly when she did.

Women frequently had to travel to distant groves of mongongo trees to  
collect protein-rich nuts that are a staple food in the !Kung diet. The trip  
could be daunting, a dehydrating six miles each way. Given small group sizes,  
even if another woman in her band was lactating, this woman might not be  
willing to volunteer as a wet nurse, or might have to leave camp herself.

The availability of palatable, alternative foods had to be factored in to age  
of weaning. Infants born into worlds without safe water or soft, easily  
digestible foods for weaning had to wait. Instead of Gerber's baby food,  
babies made do on milk and insect grubs or fibrous vegetables masticated in  
their mother's mouth, or, like lucky Aché weanlings, sucked on armadillo fat.  
For a foraging mother to remain in close enough proximity to nurse could  
require carrying babies—plus supplies and gathered provender—back-  
breaking distances. Birth of another baby too soon could prove disastrous.  
Hence Blurton Jones proposed that, in fact, far from limiting population  
growth, endocrinological feedback loops that spaced babies at long intervals  
actually worked to ensure that mothers replaced themselves, by *optimizing*  
the survival of such infants as they did produce. Babies born at shorter inter-  
vals might destabilize a mother's precarious juggling, contributing to her  
demise and/or their own. When tested against data for the !Kung, the "back-  
load hypothesis" held fairly well.<sup>48</sup>

As important as the extensive research on the !Kung has been for fleshing

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