IS PROMOTING BREASTFEEDING AS USELESS AS THE PROMOTION OF LOVE?

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INTRODUCTION THE PROMOTION OF LOVE IS ANCIENT

We do not need long arguments to convince anyone that love has been promoted since time immemorial. Spiritual heroes, religious leaders, philosophers, poets, moralists and philanthropists of all kinds have used a great diversity of terms to encourage the expression of love's many facets. According to the context they refer to compassion, altruism, selflessness, charity, generosity, bounty, humanitarianism, mercy, forgiveness. Since the word 'love' has a positive connotation in most languages, it might be that its *promotion* has been effective. But, when considering the behavior of twenty-first century humans, we don't need long arguments either to doubt the actual *benefits* of the promotion of love.

HOW DOES THE CAPACITY OF LOVE DEVELOP?

This simple, basic, and necessary question is paradoxically new. As long as we put it aside, the promotion of love is condemned to have limited effects. Today we are lead to raise the question so that scientific disciplines can provide answers.

Of course we must first take into account the genetic basis of our behavior. As is now well known, Homo is one of the three members of the chimpanzee family, along with the common and the pigmy chimps. In other words, we are, genetically speaking, chimpanzees (Diamond, 1991). It is noticeable that common chimps already carried out planned killing, extermination of neighboring bands, wars of territorial conquest, and abduction of young nubile females. The Cro-Magnons exhibited similar traits. The suddenness with which Neanderthals disappeared after Cro-Magnons arrived provides a hint that genocide had by then become efficient.

While humans undoubtedly have strong potential for aggression, they also have potential for love. How can this potential for love develop? A combination of data provided by a great diversity of scientific disciplines now suggest that the capacity to love develops to a great extent through early experiences, particularly in the period surrounding birth (Odent, 1999).

A synthesis of our current knowledge of the behavioral effects of hormones that fluctuate in the perinatal period supports the concept of 'critical' period previously introduced by behavioral scientists ('ethologists'). Ethologists were the first to understand that among mammals in general there is, immediately after birth, a short period of time that will never happen again and that is important in mother-baby attachment. A subgroup of studies included in the Primal Health Research Data Bank also suggests that the development of the capacity to love is highly influenced by perinatal events. Whenever researchers study the background of human beings who have expressed some sort of 'impaired capacity to love', they always detect risk factors in the period surrounding birth. 'Impaired capacity to love' is a useful term because it can include self-destructive behaviors (impaired capacity to love oneself).

It is precisely because we are in the process of realizing that the way we are born has long term consequences in terms of sociability, aggression and capacity to love that we are led to interpret the countless beliefs and rituals that disturb the physiological processes in the perinatal period. Many of them are intriguing, because they disturb the critical phase of labor between the birth of the baby and the delivery of the placenta. We must keep in mind that from the time when the basic strategy for survival of most cultures was to dominate nature and to dominate other human groups, creating more aggressive and destructive human beings conferred an advantage. In other words it was an advantage to moderate the capacity to love, including love of nature, the respect for Mother Earth. It is understandable that the most successful societies were those who had at their disposal the most appropriate beliefs and rituals in the period surrounding birth.

Over the millennia there has been a selection of human groups according to their potential for aggression. We all are the fruit of this selective process. This explains our inability to recognize and to take action against clear-cut manifestations of the impaired capacity to love.

Today Homo Sapiens must invent new strategies for survival. We are at a time when the limits of the domination of nature have become obvious, and at a time when the necessary dialogue between humanity and mother Earth demands a substantial unification of humanity. In other words, human beings must learn to master the energies of love. Human beings must learn to formulate the necessary basic questions, instead of just going on promoting love. Scientific data can already provide useful answers. That is why the scientification of love may be presented as a landmark in the history of mankind.

THE PROMOTION OF MOTHER'S MILK IS ANCIENT

The promotion of mother's milk is at least as old as Scriptures. Originally the question would not have been 'was an infant breastfed'? Rather, it would have been 'was an infant breastfed by its own mother'? In the Old Testament, Jeremiah referred to maternal aversion to breastfeeding. He was talking to those who wanted to be

fashionable, when he commented: "Even the sea monsters offer their breast to their offspring". The Talmud encourages mothers to nurse until eighteen months to two years. Two years of nursing is recommended in the Koran.

In a different context, Julius Caesar regretted that the babies of the Patricians were not given mother's milk. Jean-Jacques Rousseau, on the other hand, made breastfeeding fashionable among the elegant Parisians and the women of the European upper classes of the eighteenth century, in the framework of a return to nature (Rousseau, 1998). 'The fashionable mamma', an etching of James Gillray English dated 1796 (displayed at the British Museum), illustrates the widespread impact of Rousseau's theories.

The promotion of breastfeeding took different forms according to the historical context. In Renaissance art, the countless paintings of Virgin Mary nursing the infant Jesus were indirect, non-rational and effective ways to promote breastfeeding. The power of religious imagery can help to interpret an intriguing phenomenon that happened in Iceland, a country where *mothers did not breastfeed their children for two or three centuries* (Hastrup, 1992; Personal correspondence with Dr. Guonjon Guonason, 1993). Until the Reformation, the Virgin Mary had a supremely important position in Icelandic popular religious practice, and during the purification rite after childbirth, the women would pray to Mary in their local churches. Thus, in Iceland, the destruction of the image of Mary may contribute to explain the sudden en masse abandonment of breastfeeding.

In the middle of the twentieth century, during the post World War II baby boom, "formula" was developed and breastfeeding declined. In response, a group of breastfeeding mothers met in a Chicago suburb in 1956 and founded La Leche League. Their primary objective was to provide information and encouragement to breastfeeding mothers, at a time when many doctors were pushing bottle-feeding. In fact it is difficult to dissociate support of nursing mothers and breastfeeding promotion. A nursing mother always promotes breastfeeding.

Today the promotion of breastfeeding is one of the priorities of the important public health organizations. In many countries, this promotion is to a great extent in the hands of governmental departments.

In Brazil, the PNIAM (Programa Nacional o Incentivo ao Aleitamento Materno) was established in 1981 and included in the 1988 Brazilian constitution. This program was noted for its intensity, extent, and innovation. Each state organized training for all categories of health professionals and also for traditional healers and others in the non-formal healthsector. High-profile mass media campaigns featured national superstars, and legislation was passed on issues such as the advertising ofbreast milk substitutes and increased maternity leave. Brazil also has been an active participant in the Baby FriendlyHospital Initiative, and in 1998 had achieved 103 accredited hospitals.

In China, a 1995 law contained a pro-active mandate to the health care system to provide education materials on infant feeding. It also includes rules governing the marketing of breast milk substitutes. In the USA, the Surgeon General officially recommends that babies be fed with breast-milk only (no formula) for the first six months of life. It is better to breastfeed for six months and even better to breastfeed for twelve months. The watchword promulgated by the Surgeon General is: "Breast: Best for Baby, Best for Mom".

Public Health promotion can be seen as effective if we consider that in our societies everybody is now convinced that 'Breast is Best'. This is a conclusion of my unofficial survey among taxi-drivers in different countries. But one can wonder how useful these modern and direct methods of promotion really are. There is an enormous gap between knowledge, awareness and intentions on the one hand, and statistical facts on the other. In many countries the duration of breastfeeding falls far short of those recommended by their national plans. Today the point is not to promote breastfeeding: it is to understand why in our societies lactation is difficult and cannot continue as long as recommended.

HOW DOES THE CAPACITY TO BREASTFEED DEVELOP?

This simple, basic, and necessary question is also paradoxically new. As long as we put it aside, the promotion of breastfeeding will suffer. *Today we are in a position to explain that breastfeeding starts before the baby is born.*

Until recently the fact that the maternal body prepares to secrete milk before the baby is born was in the realm of intuitive knowledge. Today, physiologists are in a position to explain how the hormones released by mother and baby during labor and delivery play a role in the initiation of lactation.

Here are some examples of easy-to-explain connections between the physiology of birth lactation:

- In 1979 we learned that the levels of beta-endorphins increase during labor (Csontos, Rust, Hollt, et al., 1979; Akil, Watson, Barchas, & Li, 1979). We already knew, since 1977, that beta-endorphin stimulates the release of prolactin (Rivier, Vale, Ling, Brown, & Guillemin, 1977). It became therefore possible to interpret a chain of events: physiological pain in labor (system of protection against pain) and the release of the key hormone of lactation.
- Swedish studies, published in 1996, demonstrated that two days after birth, when the baby is at the breast, women who gave birth vaginally release oxytocin in a *pulsatile* (i.e., effective) way,

compared with women who gave birth by emergency caesarean section (Rivier, Vale, Ling, Brown, & Guillemin, 1977). Furthermore there is a correlation between the way oxytocin is released two days after birth and the duration of exclusive breastfeeding.

- The same Swedish team found that the caesarean women lacked a significant rise in prolactin levels at 20-30 minutes after the onset of breastfeeding (Nissen, Uvnas-Moberg, Svensson, Stock, Widstrom, & Winberg, 1996).
- An Italian team demonstrated that the amount of beta-endorphin in the colostral milk of mothers who gave birth vaginally is significantly higher than colostrum levels of mothers who underwent caesarean section (Zanardo, Nicolussi, Giacomin, Faggian, Favaro, & Plebani, 2001). It is probable that one of the effects of milk opiates is to induce a sort of addiction to mother's milk. One can anticipate that the more addicted to the breast the newborn baby becomes, the longer and easier the breastfeeding.

In general it is easy to explain that the first time when the human neonate is able to find the breast (See Odent, 1977), the behavior of mother and baby is influenced by the numerous hormones they released during labor and delivery (Krehbiel, Poindron, Levy, & Prud'Homme, 1987). These different hormones released by mother and baby during the birth process are still present during the hour following, and all of them play specific roles in the interaction between mother and baby and therefore in the initiation of lactation.

Of course there are many other factors that participate in the development of the capacity to breastfeed (Odent, 2003). However, we must focus on the physiological processes that are routinely disturbed by the cultural milieu.

Such considerations are particularly relevant at the age of elective caesarean section on request and at a time when we have at our disposal multiple powerful ways to disturb the physiological processes in the period surrounding birth. It is undoubtedly because the basic questions are not addressed that the results of public health campaigns are rarely cost effective. None of these public health campaigns take into account the widespread, quasi-cultural lack of understanding of birth physiology that leads to high rates of obstetrical interventions and to the extensive use of pharmacological substitutes for natural hormones. The priority now should be to rediscover the basic needs of women in labor (Odent, 2001).

Brazil is an ideal place to measure the gap between discourse and practice, because it is characterized by both skyrocketing rates of c-sections and institutionalized breastfeeding promotion. Almeida and Couto conducted an interesting survey about lactation among women health professionals whose mission is to recommend

exclusive breastfeeding for six months (Almeida, 2001). When these experts in lactation had their own babies the average duration of exclusive breastfeeding was a mere 98 days! All these women had a guaranteed 120-day maternity leave. A 'detail' was mentioned in the report of these studies: among university-level health professionals 85.7% had had C-sections, as compared with 66.7% among technical health professionals. A longitudinal study of weaning practices in northeast Brazil (where 99% of women breastfeed when leaving the hospital) revealed that the median age for starting 'other' milk was 24 days and that the median duration of breastfeeding among mothers who started other milk within one month (the majority) was 65 days (Marques, Lira, da Silva, et al., 2001). Interestingly, the rates of C-sections are not mentioned in this article.

China is also characterized by high rates of C-sections and by an intensive national program of breastfeeding promotion. It is difficult to obtain precise Chinese statistics. However, during my 2002 trip to China, I learned from word of mouth that many women have difficulties nursing. This is confirmed by a public statement by 'Save the Children' in the Kunming province, that there is an increased demand for substances stimulating lactation (www.ibfan.org).

In the USA, the incidence of exclusive breastfeeding for three months is in general below 30%. In the UK, where the population is comparatively well-informed and health-conscious, the incidence of breastfeeding at six months is in the region of 20%.

Where breastfeeding is concerned, there is a sharp contrast between Scandinavian countries and Japan on the one hand, and the rest of the world on the other. In Norway and Sweden, for example, the rate of breastfeeding at six months is around 50%. In this group of countries, obstetrical intervention is still under control. The situation in Holland is special. It seems that Dutch women in general do not meet with difficulties when breastfeeding, but in Holland there is a long tradition of bottle feeding, which explains the comparatively low rates of breastfeeding in a country where many women give birth at home. However the incidence of breastfeeding at six months is still around 25%, compared with 15% at three months in France.

The best synthesis of the current international situation is provided by the World Health Organization (WHO) Global Data Bank on Breastfeeding. It covers 94 countries and 65% of the world's infant population. According to the latest data (updated April 2003), 35% of these infants are exclusively breastfed between 0-4 months of age.

Today the priority is not to constantly repeat that 'Breast is Best'. It is to wonder how the capacity to breastfeed develops. It is to rediscover the basic needs of women in labor. Public Health bodies must take into account that 'lactation starts before the baby is born'.

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