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Breastfeeding and Women's Work: Constraints and Opportunities

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## Breastfeeding and Women's Work: Constraints and Opportunities

Penny Van Esterik and Ted Greiner

**M**aternal employment is widely cited as a major reason for the decline of breastfeeding throughout the world (see, e.g., Cox 1972; Dugdale 1970, 1971; ICIFI 1977; D. B. Jelliffe 1962; Kamal 1979; Nestlé Co. nd). Even if maternal employment does not play a significant role in the overall decline of breastfeeding, employment constrains both the opportunity to breastfeed for many mothers and their ability to engage in other child care activities. Beyond this statement, there are few generalizations that can be made on this subject since the empirical evidence has never been examined systematically.

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This paper does not offer a definitive answer or even a definitive review of all the literature relevant to the question of how women's employment affects breastfeeding practices. Research results to date are often paradoxical and contradictory. Technical problems plague much of the available data; for example, samples may be too small or biased. References on women's employment statistics seldom contain material on infant feeding practices. Information on women's attitudes and values is often poorly utilized; attitudes or values are treated as primary or secondary determinants of infant feeding practices, instead of evidence of the context in which such decisions are made.

In this paper, trends in the existing literature are summarized, and several subsidiary issues arising from examination of the relationship between work

and breastfeeding are discussed. Of key importance is our demonstration that work is very seldom cited as the reason for not initiating breastfeeding, for choosing bottlefeeding, or for weaning. We raise questions requiring more research: how maternity benefits, nutritional status of children, and the duration of breastfeeding relate to women's employment. Finally, we suggest conditions that would optimize women's chances for combining their productive and reproductive lives.

Understanding the impact of women's work on breastfeeding has been obscured by overgeneralizations and poorly interpreted data. A careful examination suggests that work as a cause of declines in breastfeeding has been exaggerated, while insufficient attention has been given to enhancing the compatibility of breastfeeding and work.

## Women's Work

All women work in the general sense of expending energy for a purpose, but not all women have employment in the sense of earning money by labor. Women's work has been described as domestic or productive, public or private, traditional or modern. Domestic work, when performed for the family and including child care, cooking, and maintenance of clothing and shelter, is seldom paid. It is therefore frequently not counted as "productive work" and is usually underreported and undervalued. Regardless of whether women work in productive labor outside the home, domestic work is done predominantly by women (Whyte 1978:68). Domestic work is performed in the private domain while productive work often takes place in the public domain where the activities have an impact beyond the family unit (Sanday 1974). Traditional or informal work includes some agricultural activities, cottage industries, and small-scale marketing. Modern or formal work, including clerical, factory, and professional jobs, is found largely in urban industrial contexts. This paper is concerned with both formal and informal productive work.

Although employers and possibly governments continue to view women as a "reserve army of labor which emerges to take jobs when there is a need for their labor (as in wartime), but retires peacefully to the home when there is a slump" (Lim 1978:20), most women work because of economic necessity. Recent research on female heads of households in developing countries shows that there is a high probability of poverty when females are solely responsible for the economic well-being of themselves and their children. Of course, women may also enjoy the compan-

ionship, satisfaction, and success associated with productive labor, and may experience an increase in social power relative to men.

It is difficult to give an accurate estimate of how many mothers with young children are employed. Statistics often underreport women's productive work or fail to distinguish between full- and part-time work. In addition, informal work conditions such as self-employment, cottage industries, and working for family businesses are less completely reported. The International Labor Organization (ILO) yearbook of labor statistics demonstrates that the percentage of women in the labor force has increased over the last decade, accounting for approximately 40 percent of the total labor force in western nations. But for women in the developing world, ILO statistics show a decrease in the percentage of women in the formal job market since 1950. Thus, generalizations about women's increasing participation in paid employment must be questioned.

The nature of women's work further compounds the problems of statistical analysis since tasks are often integrated in a complex manner. For example, domestic tasks or crafts are often combined with infant and child care. Brown (1970) argued that because women's tasks are adjusted to the needs of child care, they are usually monotonous and repetitive and can be interrupted and resumed again without difficulty. The complexity of women's work in traditional societies and the fact that siblings provide much of the care given to younger children (Weisner and Galimore 1977) weakens this argument considerably. Nevertheless, a woman who takes formal modern employment must shift from diffused concentration on many tasks, including infant feeding, to concentrated attention on her job, leaving part of the responsibility for her children to others (see Thornton 1975:103). Thus, it is formal employment in urban and urbanizing areas that has been seen as incompatible with breastfeeding.

## Working and Breastfeeding

To understand the relation between women's work and breastfeeding, an important distinction should be made between work that requires regular sustained separation between mother and infant, and work that does not. In traditional rural settings women's work is nearly always compatible with breastfeeding and other aspects of child care (Brown 1970). In the periurban setting of Cebu, Philippines, Popkin and Solon (1976) found that mothers breast-

feed if they work close to their homes, but they practice more mixed feeding (breast and bottle) earlier if they work in a different barrio (Greiner 1979b:64). In Cebu City, most women work in home industries or marketing near their homes and are able to work out schedules permitting them to nurse their babies often enough to maintain lactation (G.M. Guthrie et al. 1980:12). Even the formal work place need not separate mother and infant if there are provisions for infants at or near the mother's place of work and if nursing breaks are permitted. We have anecdotal knowledge but no careful documentation of how this system operates in China (Wray 1975; Chung 1979). In sum, there are many work situations in which the mother and infant remain in close enough contact to maintain lactation.

Thus, employment may not be as important a factor as the conditions in the work environment. Lactating women whose employment requires separation from their infants face obstacles in many societies. Managing lactation under such circumstances becomes a complex task requiring hand expression of milk, use of infant formula or cow's milk, or use of a wet nurse. Among the strategies developed by employed women are working at home for the first few months; working flexible hours, part time, or shorter shifts; and breastfeeding at night (see E.F.P. Jelliffe 1979; Popkin 1980). In New England at the turn of the century, breastfeeding decreased among women factory workers who had to return to work soon after their babies were born, but remained high among women who worked long hours doing piecework at home (Brack 1979:26).

The booklet *You Can Breast Feed and Work*, published by *Susu Mamas*, an association of breastfeeding mothers in Papua New Guinea, deals sympathetically with the problem of lactating working women. It provides practical information on diet, clothing, and the management of night feedings and weekend schedules. It also allays common fears: milk does not go bad if left in the breast for several hours; breasts naturally become smaller after a few months, not because milk supply is decreasing but because the breasts are becoming more efficient; and the like.

Recent cases of dismissal from employment of nursing mothers demonstrate additional problems for working women with minimal leverage and power. In one case, an Iowa firefighter was awarded damages, back pay, and lawyer's fees because she was suspended from her job for breastfeeding during her breaks (Lapinski 1980).

Overall, breastfeeding rates for working women do not show that employment and breastfeeding are incompatible. In Finland, there is no significant difference between breastfeeding duration of employed

and nonemployed women at one month (78% at home, 80% employed), three months (29% at home, 32% employed), or six months (8% at home, 7% employed) (Hultin et al. 1976). Similarly, in Ibadan, Nigeria, employed mothers were found to be more likely to breastfeed than nonemployed mothers, although mixed feeding patterns were also common (Orwell and Murray 1974:207). A study conducted in Bohol province, Philippines, also found that women who have ever worked for pay since marriage have a slightly higher mean length of breastfeeding than women who had not worked (Jimeno 1978:11). In rural Chile employment of the mother "was an insignificant factor in the communities studied. Of the 17 percent who were gainfully employed, fewer than half worked outside the home, and only 16 women claimed that their jobs kept them from breastfeeding" (Plank and Milanese 1973:204).

## Further Questions

As yet there is insufficient evidence to define the relationship between women's employment and breastfeeding clearly. We now speculate on four areas of particular concern.

### Work as a Reason for Weaning

Women's employment is often cited as a primary reason for weaning. But as has been argued elsewhere (Winikoff and Baer 1980; Almroth 1976) women seldom give employment as a reason for termination of breastfeeding. In most cultural contexts, work would probably be a socially acceptable reason for early weaning, yet the claims far outstrip the evidence. Often, statements that maternal employment leads to decreased breastfeeding are not supported by the authors' own evidence. In Victoria, Australia, women's work was one of three main factors listed as limiting breastfeeding. Yet in 1,635 case histories examined, this was a factor in only 11 cases in which the baby was less than three months of age (Newton 1966). In a study of lactation patterns in Egypt, Kamal relates the replacement of breastfeeding by bottlefeeding to the negative attitude of medical personnel toward breastfeeding and women's employment outside the home (1979:87). Yet the investigators' own data did not list work among the six main causes for weaning infants (1979:90).

Table 1 shows how often employment is cited as a reason for weaning, starting bottlefeeding, or not initiating breastfeeding. Clearly, it is not the major reason for the majority of women surveyed. But sur-

TABLE 1 Percent of women giving work as a reason for not initiating breastfeeding, starting bottlefeeding, and terminating breastfeeding

Reference	Country	N	Rural/ urban	Percent giving work as a reason for:			Comments
				Not initiating breast- feeding (%)	Starting bottle- feeding	Terminating breast- feeding	
<b>Central America, South America and the Caribbean</b>							
Cook 1971	Antigua	117	R	—	—	20	partial results
Gibbons 1977	Barbados	95	both	—	—	4	
Pan American Health Organization 1972	Barbados	286	both	—	—	10	
Reddy 1971	Jamaica and Barbados	?	both?	—	16	—	samples not specified
Sousa et al. 1975	Brazil	995	U	—	—	15	
Oberndorfer and Mejia 1968	Colombia	1412	U	—	—	3	
Larkin 1971	Dominica	108	U	—	15	—	
Koniz et al. 1979	Guatemala	31	R	—	3	—	
Mata 1978	Guatemala	250	R	—	—	<2	
Cook 1971	Guyana	157	both	—	—	6	partial results
Almroth and Latham (in press)	Jamaica	52	R	—	—	6	
Almroth and Latham (in press)	Jamaica	155	R	—	4	—	
De Morales and Larkin 1972	Jamaica	106	U	—	—	11	
Grantham-McGregor and Back 1970	Jamaica	300	U	—	13	—	
Landman and Shaw- Lyon 1976	Jamaica	118	U	—	2	—	
Reid 1973-74	Jamaica	28	R	—	0	—	
Bramble 1969	Montserrat	60	?	—	5	0	
Misra 1978	Puerto Rico	102	U	3	—	—	full-time students, not workers
Antrobus 1971	St. Vincent	107	R	—	—	3	
Beaudry-Darismé 1972	St. Vincent	158	both	—	—	16	
Greiner and Latham (in press)	St. Vincent	181	small towns	—	—	4	
Cook 1971	Trinidad	94	R	—	—	0	partial results
Gueri 1975	Trinidad	264	U	—	4	—	
Gueri et al. 1978	Trinidad	326	U	—	10	—	
<b>Europe</b>							
Bacon and Wylie 1976	England	200		1.5	—	—	working or studying
		57	U	—	—	0	
Evans et al. 1976	England	42	R	0	—	—	immigrants from rural India
Martin 1978	England and Wales	253	both	—	6	—	expect to return to work
Martin 1978	England and Wales	659	both	—	—	1	
Hyttén et al. 1958	Scotland	128	U	—	—	2	128 reasons for 104 women
Eastham et al. 1976	U. K.	100	U	0	—	—	
Klackenberg and Klackenberg-Larsson 1968	Sweden	127	U	—	—	3	
Sjölin et al. 1979	Sweden	45	U	—	—	16	working or studying
Buzina 1979	Yugoslavia	1000?	both	—	—	4	"causes of ab lactation"

TABLE 1 (continued)

Reference	Country	N	Rural/ urban	Percent giving work as a reason for:			Comments
				Not initiating breast- feeding (%)	Starting bottle- feeding	Terminating breast- feeding	
<b>North Africa and the Middle East</b>							
Kamal, I. et al. 1969	Egypt	120	U	—	<.5	<.4	
Kamel, L.M. 1969	Egypt	380	R	—	—	0	
Al Rady et al. 1979	Iraq	500	U	—	3	—	
Thaustein et al. 1960	Israel	2556	both	—	—	<4	actual category was "mother's un- willingness or ab- sence"
Kuwait Unit of Nutrition 1979	Kuwait	509	both?	—	—	4	high socioeco- nomic status
Kuwait Unit of Nutrition 1979	Kuwait	457	both?	—	—	<1	low socioeconomic status
Mamarbachi et al. 1980	Libya	100	U	—	—	.2	only 2 worked outside the home; children over 1½ years old
Bornstein 1974	Yemen Arab Republic	269	U	—	—	0	3 towns
Bornstein 1974	Yemen Arab Republic	53	U	—	—	66	capital city—exam- ple of women working in a fac- tory
<b>South Asia, East Asia, Southeast Asia, the Pacific</b>							
Ahmad et al. 1977	Bangladesh	130	R	—	—	<6	working not listed
Huffman et al. 1980	Bangladesh	557	R	—	—	0	
Platt and Gin 1938	China	305	U	—	—	6	
Bansal et al. 1973	India	600	both	—	—	<6	
Ghosh et al. 1976	India	802	U	—	—	3	
Karkal 1975	India	193	R	—	—	9	"required to be away during the day"
Malhotra and Prasad 1966	India	136	U	—	—	6	
Narayanan et al. 1974	India	60	R	—	—	0	
Surjono et al. 1980	Indonesia	53	both	—	—	23	"mother out of house"
Tan et al. 1970	Indonesia	225	R	—	—	4	225 families in 5 rural areas
Thaman et al. 1964	Kashmir	312	?	—	—	0	
Balakrishnan and Hus- sein 1977	Malaysia	23	R	4	—	—	
Chen 1978	Malaysia	100	U	—	?	15	
Consumers' Association of Penang 1976	Malaysia	306	both	—	18	—	
Millis 1958	Malaysia	192	?	—	—	0	reasons for wean- ing before 1 year sample of working nurses
Sinniah et al. 1980	Malaysia	317	both	—	—	86	total sample 103 probably urban
Hood et al. 1978	New Zealand	574	U	—	—	1	
McGeorge 1960	New Zealand	357	U	0	—	—	
Guthrie, G.M. et al. 1980	Philippines	605	U	17	—	6	
Guthrie, H.A. 1964	Philippines	245	both	3	—	6	
Guthrie, H.A. 1967	Philippines	74	both	—	3	—	

TABLE 1 (continued)

Reference	Country	N	Rural/ urban	Percent giving work as a reason for:			Comments
				Not initiating breast- feeding (%)	Starting bottle- feeding	Terminating breast- feeding	
<b>South Asia, East Asia, Southeast Asia, the Pacific (cont.)</b>							
Guthrie, H.A. 1968	Philippines	467	U	—	—	1	small towns
Jimeno 1978	Philippines	734	R	—	—	18	"mother is work- ing—always out"
Kalaw 1975	Philippines	81	both	—	—	4	
Paredes et al. 1977	Philippines	47	U	—	17	—	
Millis 1955	Singapore	127	U	—	—	13	data from studies of 3 ethnic groups combined
<b>Sub-Saharan Africa</b>							
Drejer 1980	Cameroon	70	U	—	11	—	
Alakija and Ukoli 1980	Nigeria	237	U	—	6	—	<50% were housewives
Ransome-Kuti et al. 1972	Nigeria	487	U	—	0	1 (school)	
Taha 1979	Sudan	1295	R	—	—	0	no women worked outside the home
Namboze 1967	Uganda	51	U	—	—	2	
Welbourn 1958	Uganda	75	R	—	1	—	
Shattock and Stephens 1975	Zambia	64	R	—	—	0	
<b>North America</b>							
Bramble 1978	Canada	60	U	—	20	58	West Indian immi- grants
Misskey and Thompson 1979	Canada	268	both	—	—	18	
French 1967	USA (Navajo)	68	R	—	10	—	
Ladas 1972	USA	<756	both	—	—	2	category also in- cludes "inconve- nient," "time con- suming"
Mohrer 1979	USA	104	U	—	9	—	
Sanjur et al. 1973	USA	133	R	(26)	—	—	

—=no information. 0=0 percent.

vey responses may not always accurately represent women's motivations. For example, *work* or *intention to return to work* may have been provided as a possible response in some studies and not in others. Then too, the reasons behind these responses are seldom well understood and may reflect socially acceptable rationalizations in different cultural contexts.

### How Do Maternity Benefits Affect Rates of Breastfeeding?

There are many ways in which governments, employers, and fathers and other family members can assist women who want to combine infant care (in-

cluding breastfeeding) with employment. The International Labor Organization established the Maternity Protection Convention for working women in 1919. The ILO conventions provide for two half-hour nursing breaks per day and suggest that provision should be made for crèches or day care when more than a given number of women are employed (Richardson 1975). However, the interpretation and enforcement of the ILO conventions vary among those few countries that are signatories to the legislation. Maternity benefits also vary from country to country and may include maternity leave with or without pay, nursing breaks, provision of day care facilities, and prohibition of dismissal (E.F.P. Jelliffe 1979; Richardson 1975).

A special concern is the extent to which women know about and actually benefit from this legislation. Although many nations have laws providing maternity leave and child care facilities, the extent to which such laws are enforced is questionable. In fact, laws that place the financial burden for maternity benefits on employers may discourage them from hiring married women. In Malaysia, for example, married women are not hired in the electronics industry and are required to resign upon marriage in order to avoid payment of the maternity benefits required by law (Lim 1978:12). Other companies keep the recruitment of women just below the level needed for provision of day care facilities (Manciaux and Pechevis 1979:148). In cases in which employers are required to cover the cost of maternity benefits, Boserup may have correctly argued that if "women get special benefits, such as the right to maternity-leave, crèches for their children, the right to exemption from night work and underground work in mines, etc., the result may indeed be to make it more profitable to employ men than women workers" (1970:113). In some circumstances, however, benefits for working women mesh neatly with the demands of the labor market. For example, in 1941 the US Congress passed the Lanham Act, which expanded day care centers and nursery schools in areas where women were employed in war industries (Ryan 1975:206).

At present we do not know what effect the provision of maternity benefits has on the practice of breastfeeding. One survey in Malaysia found that 23 percent of working women who were bottlefeeding would have considered breastfeeding if they had been offered leave without pay, while 39 percent would have considered it if their working hours could be rearranged (Consumers' Association of Penang 1976:5). But in Yugoslavia, despite the greater number of urban women taking advantage of the longer paid maternity leave, both employed women and those staying home breastfeed their babies less often and for shorter periods than rural mothers (Buzina 1979:131). Other factors besides employment and employment benefits influence the early cessation of breastfeeding. Nevertheless, the provision of adequate maternity benefits continues to be an important part of campaigns to promote breastfeeding.

### How Does Mother's Employment Affect the Nutritional Status of Her Children?

In many countries, working women are among the most severely oppressed groups. The children of poor working women may suffer from increased levels of malnutrition, although little research has been

done on this topic (see Reutlinger and Selowsky 1976; Marchione 1980; Sanghvi 1979; Popkin and Solon 1976; Popkin 1980). It is possible that this effect is more pronounced among women who work in the informal sector or part time and who therefore receive few if any benefits and probably earn less money in return for their time spent away from home (Wray and Aguirre 1969).

Several hypotheses would lead to the expectation that nutritional status might be lower among the children of poor working mothers. First, if working results in any increase in bottlefeeding, this could lead to more infections due to lack of safe water, adequate sanitary facilities, and fuel. Inadequate knowledge about hygiene and lack of time might also contribute to the danger of bottlefeeding. Second, it is likely that poorer mothers may be unable or unwilling to purchase adequate quantities of breastmilk substitutes in spite of their increased earnings from work. Poor Calcutta mothers who undertook formal employment would have to spend about half of their earnings just to replace 70 percent of their breastmilk with a calorically equal quantity of cow's milk (Reutlinger and Selowsky 1976); a corresponding figure for the Philippines is 15–20 percent of extra income (Popkin and Solon 1976). A third important reason to expect higher malnutrition among children of working mothers is the time-intensive nature of solid feeding. Vitamin A, the nutrient obtained from foods requiring the greatest time to feed, was found to be in shorter supply among children of working mothers compared with those of nonworking mothers in the Philippines (Popkin 1980). In sum, it is likely to be poverty, not mother's work, that is associated with poor nutritional status of children.

### How Does Mother's Employment Affect Breastfeeding Duration?

Although there is a tendency in the literature to stress the time-intensive nature of breastfeeding (Butz 1978; Popkin and Solon 1976; Raphael 1979), in fact it may require less time and attention than bottlefeeding (Gueri 1975; Greiner et al. 1979). Breastfeeding is certainly more convenient than bottlefeeding for women whose work does not separate them from their infants. Breastfeeding is often done in conjunction with a variety of other tasks that do not require the mother's full attention. An alternative hypothesis is that working women under severe time constraints might be expected to continue breastfeeding longer (although probably not exclusive breastfeeding). Many studies have found that employment has little if any impact on duration of breastfeeding (WHO 1979; Hirschman and Sweet 1974; Jones and Belsey



1977; Partridge et al. 1976; Martin 1978). Other studies have found maternal employment to be associated with a longer duration of breastfeeding (Winikoff and Baer 1980; Jimeno 1978; Mathias 1979; Orwell and Murray 1974; Hofvander et al. 1979; Deschamps et al. 1977). It is possible that working women tend to practice mixed feeding for longer periods of time (G.M. Guthrie et al. 1980; Greiner 1979a; Rea and Solimano 1980).

Some authors find an increase in the duration of breastfeeding only among women with higher status jobs (Brack 1979; Schwab 1979; Hirschman and Sweet 1974; Kumekpor 1973; Popkin 1978). We might also speculate that, since women working outside the home must schedule and plan their time more carefully than women working inside the home, they are more motivated to continue breastfeeding once this complex scheduling has been established. They are also able to anticipate and accommodate themselves to problems associated with uneven feeding schedules or interrupted sleep. Women working outside the home may also have more social power than those working in the private domain, and Brack's work (1979) shows that breastfeeding is more likely to be successful when women have more social power in relation to men.

## From Speculation to Assumption

Considering the complexity of the issue, it is surprising that the belief that maternal employment is a major reason for the decline of breastfeeding worldwide has become established in the scientific literature. As Table 1 shows, there is very little evidence to support this belief. An examination of the medical and social science literature provides specific examples of how this speculation has become assumption.

In an important paper published in 1962, D. B. Jelliffe reviewed trends in infant feeding in the developing world. One of his conclusions, probably still valid today, was that bottlefeeding had made inroads largely in the "septic fringes" of towns and cities (1962:42). He stated that among urban groups, the earlier cessation of breastfeeding was due to (1) the need for the mother to go out to work all day, and (2) a real or imaginary inadequacy of lactation (Jelliffe 1962:27). While evidence for insufficient milk might be found in many of the 108 studies he cites in his review, evidence for maternal employment is curiously lacking. In fact, maternal employment is rarely even mentioned as a reason for weaning in the body of his review, and then seldom accounts for a sizable proportion of the women interviewed. Nevertheless,

this paper is widely cited as evidence for the importance of maternal employment as a cause of the decline in breastfeeding in urban areas of developing countries (see Butz 1978).

A second example relates to publication of an article by A. E. Dugdale (1970) on breastfeeding in Kuala Lumpur, Malaysia. The study examined breastfeeding rates based only on existing records in infant welfare clinics in Kuala Lumpur. The only data taken from these records were race, year of birth, income, number of living children, age at first and last clinic visit, and age at weaning. No data were obtained on maternal employment. As is common in developing countries, breastfeeding was less prevalent among high-income women. Dugdale stated that there were two possible reasons for this: (1) social and advertising pressures discourage breastfeeding, and the higher income mothers can better afford to bottlefeed; (2) many families have a higher income because both parents work, a circumstance under which "breastfeeding is not possible" (1970:233).

Using the same sample but adding data on growth and morbidity, Dugdale reported further analyses a year later (1971). He stated that these data showed "breastfeeding confers little or no benefit on the infant. . . ." This is perhaps not surprising in a clinic-based study (see Greiner 1979a) since ill health often provides the motivation for attending a clinic. A clinic sample cannot be used for comparing the effects of feeding methods on health unless breastfeeding rates in the clinic sample can be compared with those in the entire community, and, in this case, they were not. Presumably based on the assumptions that (1) higher income families are those in which both parents work, (2) working women cannot breastfeed, and (3) breastfeeding confers no benefit on the child, Dugdale's widely cited recommendation is that "the economic well-being of the family is more important" (i.e., mothers should be advised to work rather than breastfeed).

The social science literature also perpetuates the idea that women's employment is responsible for the decline in breastfeeding. A report on *Mothers in Poverty* by the Human Lactation Center speculates on the effect of rural-urban migration on breastfeeding, with no citations or empirical evidence: "Though a woman's responsibilities often double, and this life style puts pressure on her to work, she still opts for the new way of life. Obviously, some aspects of her daily routine must be eliminated to permit time for this work. Breastfeeding is often an early 'casualty.' Even if she wishes to breastfeed she cannot give as much time as it requires. Though the actual feeding time is short, one must remain available for that purpose. So, since she must contribute to the family in-

come (frequently all alone) or is the sole support of herself, her infant, and perhaps other children, it becomes difficult if not impossible to breastfeed" (Raphael 1977:9). Yet the data on which this statement is based are not yet public. We learn only that "the Center's ethnographic data include cultures in different stages of integration and disintegration practicing breast or alternative feeding methods" (Raphael 1977:12).

Speculations about the relation between women's employment and breastfeeding can influence policy decisions. For example, Dugdale's 1970 paper has been cited to show that "wage-earning non-lactating mothers manage to have better-fed babies than those mothers who forego earning wages and stay at home to breastfeed their infants." The paper concludes that "if these facts are correct, maybe we should devote more energy to developing cheaper, more hygienic, artificial infant feeding methods, and teaching these mothers how to use these methods" (Habicht et al. 1975:155). Hakim suggests similar policies: ". . . given its wide prevalence, efforts to improve the safety and reduce the costs of bottle feeding may make a more significant contribution to child health and nutrition than campaigns to increase breastfeeding or control commercial advertising" (Hakim 1979:297). Thus, the assumption that mother's employment is the primary impediment to breastfeeding can markedly influence the policies designed to promote adequate infant feeding.

## Liberation in a Can

Consolidation of this view in the scientific literature is particularly important for the infant formula industry, which can promote products on the supposition that they are needed by working women. The International Council of Infant Food Industries (ICIFI) identifies working mothers as one group using infant formula. These mothers "must often choose between breastfeeding and work, and the decision must be made in the best interest of the whole family" (ICIFI 1977:64). The statement is followed by a reference to Dugdale's work. The chairman of Ross Laboratories writes: "There seems to be an almost universal desire of women to become wage earners in their own right" (Cox 1972:7). He spelled out the importance of this issue for the industry: "There is, for the infant formula industry, a legitimate opportunity to fill this need for good infant nutrition, which will continue to increase as the female labor force expands" (1973:2). Nestlé's exaggerated belief in the importance of this

issue is illustrated by the following statement: "While more research is needed in this area, the preponderance of available evidence points to a mother's need or desire to work as the principal reason for the breastfeeding decline in urban areas (of the third world)" (Nestlé Co. nd: 17).

To what extent does bottlefeeding liberate women? To answer that question, the time and expense required to feed an infant artificially from birth in different countries would first need to be calculated—a gargantuan task. Infant feeding practices must be seen in the context of more general women's issues, while avoiding the ethnocentric application of western feminism to women's issues in other countries. It is possible that bottlefeeding with infant formula appeals to women's aspirations for social and economic equality and to their aspirations for social mobility for their children, if not for themselves. We need to know how bottles and infant formula fit into the technological complex associated with modernization.

Infant feeding practices in general, and the breast-versus-bottle controversy in particular, usually are not presented as feminist issues. Breastfeeding is often linked to other maternal and domestic tasks traditionally associated with women. In North America, this traditional position is emphasized by the La Leche League publication *The Womanly Art of Breastfeeding*, which assumes that "the nursing mother, of necessity, stays at home; the father, of necessity, will go out and make a living. The wifely duties will consist of baby and child care, cooking, washing, ironing, and the many tasks usually associated with homemaking" (La Leche League 1976:115). Women employed outside the home would find little practical advice in a publication that states "there may arise a time—rarely we hope—when you find you simply have to leave your baby during one of his feeding times" (La Leche League 1976:110). On the other hand, breastfeeding may be viewed by some feminists as the epitome of nurturant behavior—restrictive and unappealing, constraining an emancipated woman from employment possibilities. For these women, biologically determined functions may be devalued and, whenever possible, replaced by technical innovations such as bottlefeeding.

A more radical feminist might reject both positions and argue instead for a restructuring of society to support women in their productive and reproductive lives. For women who choose to have children, breastfeeding is a natural continuation of pregnancy and gestation. Western feminists write, "Learning to accept and like our bodies as they are, to care for them as they grow and age, and to understand and value all their different functions is a central part of feminism. The move towards natural childbirth and

support in breastfeeding, with medical and technological help (including formula milks) always available, is a move towards reclaiming our bodies and deciding for ourselves what shapes we want to be and how our reproductive powers are to be used" (Spare Rib 1980:52).

What cultural and institutional changes would allow women to reconcile their productive and reproductive lives? For one, domestic labor would have to be shared with male and female relatives or non-relatives ("mothering the mother," Raphael 1979:28). One largely untapped resource is fathers. While fathers in many societies are themselves under severe time constraints, time-allocation studies suggest they have more leisure time than mothers and that they spend little if any of it in child care (Whyte 1978:68). In Sweden and Norway, fathers' involvement in child care is facilitated by laws encouraging men to take paternity leave (E. F. P. Jelliffe 1979:54). In other western societies, men may be unable to transcend stereotypic gender roles and participate in child care.

Second, obstetric practices would have to change to accommodate breastfeeding mothers. In addition to information and support, changes in hospital routines such as use of supportive health personnel, rooming-in, feeding on demand, and reduction of medical intervention have been found to be beneficial to nursing mothers (Winikoff and Baer 1980; Brack 1979).

Third, government and labor laws to accommodate nursing mothers—including maternity leave and benefits, nursing breaks, and reasonable child care facilities—must be enforced. Savané writes, "The lack of day care centers and nurseries, together with the absence of legal provisions to protect mothers, is to some extent a reflection of the low priority granted by governments to the problems encountered by women" (1980:87). With her usual confidence in women, Margaret Mead argued that ". . . if breastfeeding were accepted as necessary and usual practice by government and employers, then arrangements must be made for a woman's baby to be near her for the first six months or so of life" (Mead 1970:5).

Fourth, food would need to be distributed more evenly within households to ensure that infants and pregnant and lactating women were adequately nourished, unlike the pattern common in many societies in which men have greater access to food. Although the value of food supplementation programs is often questioned, maternal food supplements might increase milk production and possibly raise a mother's status as procurer of food for the family (see Scrimshaw and Pelto 1979:198).

Finally, women would need to transmit knowl-

edge about breastfeeding to other women and to increase their confidence in themselves and their infant feeding choices. Confidence is necessary for the let-down reflex to function properly and for women to make the political demands for changes that would allow breastfeeding and work to coexist.

Increasing the frequency and duration of breastfeeding would potentially improve the nutritional and ultimately the health status of infants, contribute to child spacing, and reduce individual and national dependence on uneconomical milk products. But the changes necessary to accommodate working mothers who choose to breastfeed their infants would benefit more than just lactating mothers. It is important that the breastfeeding issue be linked with related development goals. For example, the trajectory of changes suggested above would have synergistic effects in areas of child socialization, women-oriented health care, and flexibility in work schedules (part-time work, flextime, job sharing, etc.). These changes offer a human solution instead of a technological solution to a complex problem (see Latham 1978:429) and are compatible with other health and population goals widely shared in developed and developing countries (Winikoff and Brown 1980). Underlying these changes is the assumption that the status of women can and will improve. Helsing raises the final question: "In a world in which a female labour force is participating more and more, the peculiarities of this labour force have to be borne in mind. Until now, pregnancy and lactation have been strictly private enterprises, and society has not had to bother about how to cater to the newborn—that has always been regarded as the task of a woman. It still is and will be the task of a woman—but she is an active participant in society. How can society adjust, so that, without having to perform two full tasks, she can remain useful to the society and simultaneously take the necessary care of her offspring?" (1976:219).

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