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## Mothers, Milk and Money

### Maternal Corporeal Generosity, Social Psychological Trust, and Value in Human Milk Exchange

*The giving of mothers' milk is often regarded as both the most "natural" and biologically essential of events. The idea of exploiting the lactating impulse for economic gain often provokes swift and hostile reaction. Yet the continual promotion of the distinct and immense "value" of breastfeeding illustrates how profoundly breastfeeding is invested within an economic paradigm. In this article, I argue that maternal corporeal generosity, along with issues of trust, not only mediate changing notions of the value of breast milk, but underlie the dynamic involved in the exchange. These features, once a characteristic of ancient reciprocal exchanges of breast milk, now are being increasingly exploited by growing commercial interests. What was once a "service," attached to a working agent, is now a "product" alienated from its production source. Remembering both mothers and their milk reminds us of the moral work motivating breastwork.*

The very term "mother's milk" evokes something primal and quintessentially natural that somehow both predates and transcends the realm of economics. In everyday discourse, the idea of thinking of "giving" breast milk as a form of economic exchange offends many people's idea of what ought to "naturally" resist commodification in any form. At the same time, mothers are told not only that "breast is best"<sup>1</sup> for infants, but that human milk itself is akin to "Liquid Gold."<sup>2</sup>

It is no wonder why historians have argued that the gendered "breastwork" (Bartlett) of wet nursing (meaning the feeding of another person's child for some form of financial remuneration) is both ancient and globally identified (Apple; Fildes 1986, 1988; Golden). This history is intimately tied to not only the *multi-billion dollar* artificial infant formula industry, but also the power

and influence of the globally networked medical profession on mothers and infant feeding.

From the ancient service of wet-nursing to the contemporary products produced from human milk (such as ice cream or cheese) there have been extensive changes in the underlying social relations associated with the gendered economics of breast milk exchange. Some of these changes have been discussed by researchers from a variety of backgrounds, including, as I will discuss below, some feminist economists who have tried to imagine the economic value of breast milk. Researchers have often imagined the social relations underlying breast milk exchange by beginning with the classic formulations by Marcel Mauss of "*le don*." Issues of obligation and responsibility are key to understanding the "gift" and social exchange. Furthermore, I will argue against the mythology of a "true" gift, in line with arguments suggested by Pierre Bourdieu and Arjun Appadurai. All forms of breast milk exchange involve commodities, but it is important to recognize that commodities have social lives and that we as social researchers trace the various directions involved in these exchanges.

Classical economic anthropological constructions of the gift, and the underlying forms of economic exchange in gifting transactions are argued to be key. There is no doubt that one can make the argument that some form of reciprocity underlies all forms of breast milk exchange. However, how that reciprocity is used, and by whom, remain central issues. By looking at what I have termed medicalized wet-nursing, the origins of human milk banking and the increasing dependence on maternal corporeal generosity—an exchange which has been heavily influenced by the expansion of milk expression technology—what emerges is the alienation of the product from the producer, the milk from the mother. Issues of trust are linked to a mythological notion of a "true" gift, one which is freely given and anonymously received. But central to this question is the issue of trust. As I will discuss, trust in the human milk bank system of breast milk exchange has been appropriated by the healthcare community, largely responsible for this global system of breast milk exchange. As a result, this has removed mothers from the exchange, contributing to the medicalization of infant feeding along with the medicalization of other aspects of maternity. I will discuss how this process includes intermediary aspects of the social psychological aspects of trust in the social exchange. These social and ethical capitals of trust between strangers have also become both biomedicalized and commodified by powerful corporate players, particularly when we consider for-profit human milk banks.

Such theories are realized in the context of the example of human milk banking. The historical moment of their foundation (1909) offers an example of how a gift based economic initiative is formalized and medicalized. This model is destroyed in the 1980s with the HIV epidemic, but as milk banks re-

open in the 1990s, the need to discover and contemporize a donor based trust system opens up further theoretical possibilities. Finally, in the twenty-first century, gifting itself becomes the basis of a for-profit breast milk industry which exploits the donor human milk model.

### **Myself, Motherhood and the Exchange of Breast Milk**

My research on breast-milk, babies and borders combines both an autoethnographic academic framework with activist/policy orientation, theorized and personalized thanks to both of my sons. Autoethnography as theorized by Carolyn Ellis and Arthur Bochner, is a highly reflexive research methodology that has become increasingly popular within feminist traditions of social research. It fulfills the long-standing activist desideratum of making the personal political.

My first son, Liam Theodore, was born (February 24, 2005) in Windsor, Ontario, ten weeks premature. A year later (February 15, 2006), my second son, Gabriel Louis, was born, also ten weeks premature, but in Dublin, Ireland. Both births were extremely traumatic, and we are very lucky that either of my sons were able to come into this world alive, and that I am still here to talk about them. Both births were covered by health insurance and therefore did not cost me, or my family, any additional money other than those we pay in taxes and premiums for our additional private health coverage in Ireland.

At birth, they were both very healthy, although Liam was slightly healthier than Gabriel, who had breathing issues for the first three days of his life. They were however both small, weighing under three pounds or 1500 grams. For both my sons, I pumped (with a hospital grade Medela pump, a version of which I later purchased myself) day and night, but in both cases I was not able to produce more than a few mils. This situation was even worse for Gabriel because I bled out three weeks after he was born. The hospital in Canada where Liam was born, actively supported the use of formula when mothers were not able to make enough milk; this was despite them fully expecting him to develop a fever, which he did. They were unaccustomed to the symptoms of Necrotizing Enterocolitis (NEC), and it took a locum from a level three unit, to diagnose him, but the disease had progressed rapidly, and he was rushed to the nearest level three neonatal unit, where he died a few hours later in my arms.

As a medical sociologist/anthropologist (when I was able to think again) I noted the increased morbidity and mortality link with non-exclusive breast milk consumption among the prematurely born and those who develop NEC. I also discovered that the solution, for about a century, for mothers who had difficulty producing enough breast milk for their premature infants, had been

the use of donor human milk banks. I then learned that both Canada and Ireland each had (at that time) one donor human milk bank. However, the one in Canada was located about 1200 miles from where Liam was born. The Irish milk bank is the only community-based example in the UK system, which has at present 17 banks, and it is costed through the UK National Health System (NHS), but it supplies infants in need island-wide and takes donations from women on either side of the border. I began a research project highlighting this example of cross-border health co-operation while tracing a global socio-cultural history of milk banking across the twentieth century, when I discovered I was again pregnant.

I knew I was at risk of having another prematurely born infant, and I was now well informed regarding milk banks, including the Irish milk bank. Therefore, once we were satisfied that the medical personnel and technology available in Dublin was comparable to the best in Canada, and that if necessary, donor breast milk would be available, we decided our second son would be born in Dublin. Gabriel's first 20 minutes of life were terrifying, and we were extremely fortunate to have both survived. He however received excellent medical care, and I began pumping for him as soon as I regained consciousness, and once he was allowed to have nutrition he received my milk for the first three days of his life, at which point he was supplemented with donor human milk.

We were not charged for Gabriel's breast milk. Other than the occasional taxi fare involved in its collection, we paid nothing. I know that approximately 30 women from both sides of the Irish border donated milk for Gabriel, although as a matter of policy I have not knowingly met any of these women personally. These women were not paid for their donations, although additional expenses such as bottles/bags may have been provided.

At a month corrected, and weighing over eleven pounds, Gabriel was "cut-off" donor milk as, at that time, the meagre supplies in the bank were needed for other infants in greater need. I entertained the idea of how to purchase human milk, but did not know where to begin. I went so far as to discuss this problem with the director of the donor milk bank whom I had befriended, and she suggested that if I were able to find a suitable donor she might be able to give me aid with the processing of her human milk to make it as safe as the milk Gabriel had been receiving up to that point. I did not find anyone, but I know that if recent Internet based social networking existed, I would have used them.

Although all of Gabriel's donors remained anonymous, we were told that one of the main donors actually lived within a few miles from our home in Ireland, but that her milk was transported and processed in Northern Ireland, and then returned back to us in the Dublin area. Both my partner and I feel enormous gratitude towards these mothers and, perhaps because

of the anonymity of our donors, we both also feel thankful to all mothers who donate their milk, in particular for use by premature infants. Gabriel just recently celebrated his sixth birthday, and continues to be a healthy and happy boy. My heart however bleeds when he says to me that he wishes his brother were still alive.

### The Economics of Mothers' Own Milk

Underlying the exchange of the gift is an economic system that anthropologists have identified as reciprocity and have argued that this is the oldest and cross-culturally universal form of exchange of goods and services. Mauss (1954) argues that "*le don*" or "the gift" is not an expression of some rarefied and pure altruism but it is impregnated with concepts of reciprocity in its very essence and countless applications. When milk is "gifted" therefore, a relational chain of reciprocal obligations is activated. In economic terms therefore, the "giving" of milk is part of a culture of exchange and expectation. Marshall Sahlins states that there are three modes of reciprocity: generalized, balanced and negative. The other two main forms of exchange, redistribution and market, I will discuss in relation to other kinds of breast milk exchange. The mother child dyad exchange of breast milk could be argued to be one example of generalized reciprocity. This is the type of reciprocity that is argued to be the closest to the giving of a pure gift, meaning that those who give do not expect a return in any specific time frame. The foundational notion of breast milk exchange being built upon a mythical notion of 'true' gift becomes key for other forms of breast milk exchange.

The cost/benefits underlying dyadic mother child breast milk exchange are the subject of continuing research, and have produced some conflicting results. On the one side we have research that has argued for the health benefits infants experience as a result of having been breastfed, which include a number of benefits for both infants and mothers. All of these health benefits can be translated to economic benefits, offering both reduced costs to both governments and employers. Additional economic benefits are argued to be related to the elimination of costs associated with purchase of formula, estimated to be anywhere from \$700 to \$3000 dollars a year (Weimer; Bonyata). In a recent reissue of their policy on breastfeeding and human milk, the American Academy of Paediatrics said that increasing long-term breastfeeding rates "would be of great economic benefit on a national level" (832). It is important to remember, however, the argument of Phyllis Rippeyoung, which is suspicious of state sponsored policies because they contribute to decreased responsibility by the government in relation to a number of more costly maternal and infant economic, educational, housing and health issues.

### From Commodity to Gift, Maternal Corporeal Generosity

Throughout history and cross-culturally, wet-nursing is not only associated with gender and class stratification but has often been conflated with issues of race and ethnicity. In America, many have commented on the dominant exploitative historical image of wet nursing associated with African American women slaves who suckled and cared for white children. Naomi Baumslag and Dia Michels have noted that although these wet nurses were offered deferred slave labour duties, these relations were involuntary and therefore carried extreme levels of exploitation. Racially constructed anxieties concerning wet-nursing transcend the very specific (and extreme) experience of North American slavery. Similar anxieties have surrounded the employment of Irish wet-nurses (the subject of an article I am currently preparing) as well as other immigrant groups. Paradoxically, these anxieties co-existed with a belief that Irish women, like Black women, were prolific "milkers" whereas their more affluent white Protestant female employers had evolved beyond such utilitarian bovine identity. Wet nurses are therefore, necessary and threatening at the same time. The fear that the intensity of the nursing relation impacts upon the impressionable and evolving identity of the child is also very pervasive, and has long been a feature of popular media discussions.

The institutional usage of wet-nurses changed as increasing numbers of hospitals cross-culturally developed dedicated paediatric units in later part of the nineteenth century and the beginning of the twentieth century (Wickes), as the employment of wet nurses was a decisive example for pioneering institutions in Paris, Moscow and Vienna. These wet-nurses were employees of hospitals rather than of private individuals, and were regulated and organized accordingly (Golden).<sup>3</sup> The housing and employment of these women was however very expensive, leading to the main challenge concerning establishing a reliable and sufficient supply of human milk. Connected to the supply question were issues related to the storage and preservation technologies that could isolate essential qualities of the milk (leading to a number of medically supported non-human "formulas," in particular for premature infants who were too young to suckle (disturbingly referred to as "weaklings" in official records of the period).<sup>4</sup> Despite obvious technological advances over the past century, these two needs remain the chief challenges for modern human milk banking arrangements.

The first organized features of an established milk bank were based on systems of inequality related to both class and race (and of course gender). The donors were single mothers who in exchange for maternal health care provided breast milk to the hospital for use among their neonatal patients (as I discussed at the centenary celebrations). The earliest "donors" received some

financial remuneration, although from the earliest days, women commented that their sense of communal contribution to public good was far more important than any money they received. The economist Richard Titmuss argued in his influential 1970 book, *The Gift Relationship: From Human Blood to Social Policy*, that blood donation should be a voluntary gift rather than part of a paid cash exchange. His daughter, the sociologist Anne Oakley, republished this book with an additional chapter by Gillian Weaver and Susan Williams on milk banking. Today in many countries, women who supply human milk banks are not paid, although I have been told, it was and in some places still is not uncommon for donor mother to be given, somewhat oxymoronically, a “rewarded gift” exchange.

The human milk banking history is also intimately linked to technology, in particular milk expressing, originally linked to Chicago paediatrician, Isaac A. Abt, with mechanic engineer, Edward Lasker, both of whom introduced the “electrical” breast pump. In 2009, *The New Yorker* published an article by Jill Lepore entitled “If Breast is Best, Why Are Women Bottling Their Milk?” offering a history of breast pumping which concluded that increasingly pervasive phenomenon of pumping cannot be described as an “easy option” for busy professionals: observing that “the nation begins to look like a giant human dairy farm” (Lepore). Even when breast milk itself is not commodified, the activity of milk expression has experienced significant private sector interventions, and has been linked to “working women” and the answer to being able to continue to nurse while reading emails (Colburn-Smith and Serrette). Furthermore, Medela began operations in 1961, and are currently the market leader in milk expression equipment. Originally working with hospitals, they expanded into the “home” market in the 1980s. A time period which was marked by the recognition of the transmission of HIV/AIDS in breast milk resulting in the almost total demise of donor human milk banks globally. Slowly starting the 1990s milk banks began to re-emerge around the world, and along with this Medela introduced their first in home use electric pump.

### Medicalized Social Trust and Anonymity, Removing Mothers

An extension of the Titmuss hypothesis is that the gift or donation should be made anonymously thus reducing the potential of financial exchange even further. The historical rebirth of donor human milk banking globally has emphasized and illustrated the issue of trust, with the donor human milk banking authorities being the agents of trust. Physicians in a number of countries when surveyed before the re-opening of a human milk banking system, repeatedly discussed the issue of safety with the milk and how they needed to trust the process. Prior to this reopening in many countries the regulatory controls were

not centralized, and suspected by some potential users. Part of this re-introduction was the gradual spread of the “gifting” or non-financial remuneration to donors. In a number of countries it is also common for donors and recipients to remain unknown to each other. This additional component of anonymity adds to the constructed nature of the breast milk being a “true” gift, and therefore is argued to increase the trust within and outside of the system. Sociological exchange theorists, in particular the work being done by Karen Cook and her colleagues, argue that relationships of trust are negotiated in circumstances of uncertainty, in situations where unknown or unpredictable agents or interests may act in exploitative ways. Forging relationships of trust helps create commitment to exclusive terms of exchange that offer a degree of protection from a more chaotically predatory field of possibilities.

Studies of donor human milk banking around the world have not considered donor compensation cross-culturally. Most studies have looked at processing cost, and some have related this to estimated health cost savings. For instance, Lois Arnold, one of the most prolific contributors to the literature of global milk banking, has published two articles specifically devoted to cost savings and benefits of milk banking. In both papers, the results of which are included in her book, she emphasizes the reduced costs associated with reduced rates of NEC. Arnold argues that the financial costs of prematurity may add up to 200,000 dollars for a single infant in the United States. These costs are accelerating due to the increasing number of very premature infants who are surviving the initial birth trauma and therefore need to be cared for longer periods.

In the UK, meanwhile, as part of the government research associated with recent guidelines regarding the donor human milk system, a cost statement was prepared. This statement linked donor human milk banks to a discussion of what is “good practice” including milk screening for a number of diseases and traceability. Mary Renfrew and colleagues argue that with proper management the cost of breast milk in a neonatal unit could be reduced to that of formula. These costings do not, however, include substantial savings associated with reduced stay in hospital, and are not directly convertible to use among non-hospitalized infants. A similar point was made by Karen Simmer and Ben Hartmann who also reminded us of the difficulties associated with cross-cultural comparisons. Similarly, in December of 2010, the paediatric advisory committee for the American Food and Drug Administration (FDA), held hearings to discuss concerns regarding use of non-maternal own milk, and made concluding recommendations in favour of the medically supervised use of not-for-profit HMBANA<sup>5</sup> member donor human milk banks.

One of the presentations given to the FDA was by an individual involved in the Canada Paediatric Association’s efforts to re-establish human milk banks in this country. For much of the twentieth century, Canada was a pioneer in

the field of human milk banking provision. Of all the developed nations attempting to regenerate milk banks following the HIV shutdown of the 1980s, Canada is now the most estranged from the global milk banking renaissance with just one milk bank in Vancouver, and one in Calgary which opened in April 2012, but central and eastern Canada are still left with no resource. In 2010, the Canadian Paediatrics Association issued a belatedly positive mission statement on this issue, making the (by now) familiar point that even a small reduction in NEC would have significant cost benefits and also noted the possibility that breast milk banking may serve to publicise the essential health benefits of breastfeeding for the community at large.

The monetary value of donor human milk varies cross-culturally, and has been estimated in Australia by Simmer and Hartmann for a hypothetical premature infant (born at 24 weeks gestational age) with donor milk for the course of their hospitalization amounts to approximately 1200 Australian dollars, which they report is less than the cost a single day's stay in a Neonatal Intensive Care Unit. In preparation for this paper, I was recently informed by one of the directors of one of the largest milk banks in the UK, Linda Coulter, that the cost of providing breast milk to the National Health System has been estimated at approximately 3-4 pounds per ounce. This is comparable to the reported cost associated with donor milk from American not-for-profit human milk banks, which cover the costs of screening and processing by selling their milk to hospitals and individuals with insurance coverage for approximately 3-5 dollars per ounce, although recipients must present a medical prescription (Dutton; Rough et al.). Given that the product itself does not incur a cash cost, the chief cost of milk banking involves screening of donors and processing of milk.

However, it is the exemplary system of donor human milk banking which has evolved in Brazil that deserves the most urgent research. The success of the Brazilian donor human milk banking system is related to the support of the Government Health Minister, who has argued for continued support because of the large financial health benefits (US\$540 million per year) associated with the Brazilian milk banking system. The word "system" is particularly important because the operations associated with the Brazilian milk banks are tied to cultural breastfeeding support programs, and have specifically been linked to postal and firefighting agencies (More).

The Brazilian government has also been very active in the Ibero-American human milk bank network, contributing substantially to their global development profile (Brazil.gov.br). This network has also been contributing to the expansion of donor human milk banks in parts of Africa as have the newly formed not-for-profit organisations such as HMBASA (Human Milk Bank Association of South Africa). In a qualitative study of Brazilian women who

donate (Alencar and Seidl), it is argued that the altruistic sentiment of wanting to just give help was the most common answer to the question "why do you give breast milk?" Although this study did not analyze the effect of socio-economic background on donors, there was some slight indication of higher donation associated with the higher income region, but this may have been a feature of the qualitative choice of respondents. Future studies are needed in this area, particularly cross-cultural comparative studies of donors' motives, along with their financial background and the economic implications. Again, one is reminded of Rippeyoung's concerns about state policies when thinking about the large impact that donor human milk banking has had on the Brazilian economy. The anthropologist Nancy Scheper-Hughes conducted research in Brazil for a number of years, writing a seminal discussion about chronic child loss and poverty and a mother's ability to express maternal love entitled *Death Without Weeping*. Although Nancy Scheper-Hughes has not studied human milk banking in Brazil, she has written about organ trafficking, arguing that anonymity helps to obscure the origins of body parts and that this also contributes to unequal power relations behind their donation and reception (see Scheper-Hughes 2002).

#### **"Liquid Gold": Contesting the Value of Human Milk**

The potential financial contribution that breast milk could make to gross domestic product (GDP), meaning the value of goods and services produced in a particular country for a given year, have been estimated by some feminist economists (Smith and Ingham). Similarly the editor of the popular and influential online magazine *Mother.com*, Peggy O'Mara, recently published a paper entitled "The Economic Value of Breast Milk." O'Mara points out that even with the extremely small percentage of American mothers still exclusively breastfeeding at six months (13.3 percent), a figure that defies the recommendation of numerous health agencies, the "value" of breast milk she estimates to be about \$7 billion, which far exceeds the \$4 billion a year sales associated with the U.S. formula industry. She concludes by asking the question "What do we need to do to add breast milk production to our GDP?"

Conceptualizing money and monetary value forms an important part of our story, and understanding money affects our ability to understand socio-economic changes associated with breast milk exchange. At the turn of the twentieth century, Georg Simmel (1900) argued that a socio-cultural understanding of "money" allows us to understand "the totality of life," and that exchange was part of the "original form and function of social life." His words resonate a century later when he said that money was everywhere and to some everything. However, he went on to point out that money itself has no intrinsic

value, especially since there is no real link to a precious commodity underlying money globally. Simmel argues that value is linked to the production of objects, which we are then separated from, and we seek to regain. He argues that things that are either too close or too far from us are not considered valuable. Objects, which are both far away and at the same time close, are particularly special in that this inherent ambivalence builds social dynamics around them. In terms of breast milk exchange, the object, breast milk, is ambivalent, and is part of the reason why so much social, cultural and political controversy has surrounded its exchange. For Simmel ambivalence is also linked to key aspects of potential trust and the stranger (1908), two additional components of our story of human milk exchange systems.

Profit-based milk banks exist primarily in the United States, and are chiefly linked with the California based private company Prolacta Bioscience (founded 1999). This “nascent industry,” as its founder Elena Taggart Medo describes it describes it on her linkedin description page, is the first and only commercially available producer of human milk fortifier, made from concentrated 100 percent human milk. Research has suggested that bovine fortified donor milk is better than non-fortified milk. Preliminary evidence suggests that human based fortifier may be superior, something Prolacta promotes. Prolacta promotes a product line that includes five different varieties (based on calorific content) of human milk fortifier, as well as two varieties of “standardized human milk formulation.” These fortifiers and formulations combine pooled donor human milk from affiliated for profit donor human milk banks, all of which give the majority of the human milk they receive to Prolacta. The processing includes pasteurization, but also the extraction of particular calorie content milk, which is sold to hospitals at ten fold the cost of not for profit donor human milk banks.

Prolacta offers a prime example of conflicts between market model and a reciprocity model. Not only are the suppliers of their product generally not paid, the company actively calls on donors’ sense of community contribution, and has been less than forthcoming about the dominant profitable aspect of their operations. A striking illustration of the for-profit human milk banking corporate co-operation is evidenced by the story of the International Milk Banking Project (IMBP) and Ithemba Lethu, a milk bank in South Africa specifically devoted to providing milk to HIV orphans (Boyer). In 2006, Jill Youse, a nursing mother with an ample milk surplus, discovered via the Internet, the urgent and overwhelming needs identified with this bank and decided to transport as much of her own milk to the bank personally as possible. Through her online work, she brought friends and other mothers on board, and took more milk personally to South Africa, and the IMBP was born, with the intended goal of making “donor milk banking a global norm.” Shortly after

this she was invited to appear on the American television programme *Oprah* (2007) leading to an influx of voluntary contributions, swelling the scale of the enterprise beyond their joint resources of time and money. It also brought their efforts to the attention of the commercial human milk company Prolacta Biosciences. Prolacta offered the IMBP financing and processing, in exchange for 75 percent of the milk the IMBP collected, leaving just 25 percent of the milk going to Africa (Boyer).

Other commercialized applications of breast milk remain (at present) either peripheral or notional; yet offer a foretaste of the complexity of this issue. Stem cells have been discovered in breast milk, suggesting potential diverse and revolutionary medical treatments and products. Other medical research flourishes, such as the work being conducted in Sweden that has found components in human milk that kill cancer tumour cells. Most recently, in Australia, researchers have found stem cells in human milk, potentially resolving moral dilemmas associated with stem cell research. Furthermore, the harvesting of such an increasingly valuable product triggers alarm bells concerning human rights and working conditions. In this context, the Chinese research (Yang et al.) concerning genetically modified cow’s milk illustrates the protean flexibility of commodity capitalism.

### Remembering Mothers, Making Milk

Theories of late capitalism highlight changes in global networking enabling far more flexible and transitive commercial enterprises to flourish. The Internet creates virtual environments where distinctions between social networking, support and advice forums and cottage industry are constantly being smudged. It has been reported by a somewhat over-excited media that some women have succeeded in making some additional income for themselves, in a few cases to the tune of \$20,000 per annum through the sale of surplus milk (“Pumping a profit”; Dutton). On the main website for selling, buying, and sharing breast milk (onlythebreast.com)<sup>6</sup> one can find advertisements from some of these women who have advertised the fact that they are donors to human milk banks, in order to give both moral legitimacy and scientific clearance to the milk they are proposing to sell. Although money may be exchanged through these informal and semi-formal social networks, continuing relationships may be forged and sustained through these agreements that depend on reciprocally negotiated conversations.

The exchange of breast milk has taken a number of forms throughout history and across cultures, and not all of which have involved financial remuneration. Anthropological studies of some these non-financial exchanges of breast milk, such as occur either with Islamic systems of milk kinship or nurse fostering,

still involve some form of reciprocity. At the same time, these alternative forms of human milk exchanges build relations of trust between family and communities, and are also dependent on maternal corporeal generosity. These types of breast milk exchange do not place a monetary value on the milk itself, but rather look to the incalculable value that is part of social solidarity for families and friends. To illustrate the potential implications of both generosity and trust within human milk exchanges, I have discussed the contemporary changing features of the donor human milk banking system of breast milk exchange. This example not only captures the medicalization of maternity, but also the commercialization of human products, aspects of breast milk exchange that will potentially become more widespread, particularly, I believe, as long as mothers are not included directly.

While arguing for the centrality of mothers and celebrating the creative agency of “breast-workers” of all kinds, it is important to stress the societal and relational factors that construct the ethical context for this discussion. In Foucauldian terms, all ethical work involves co-dependent self and social subject formation within a historicized matrix comprised of politically charged forms of knowledge (Foucault). Any kind of social theory or public policy regarding human milk implies that these urgent priorities should not be used to place additional coercive pressure upon women, or to support an atmosphere of maternal guilt, but rather, to remind ourselves that “it takes a village” to feed a child, and that once defined as a societal need, breast milk, and the moral work associated with it (Ryan, Bissell and Alexander), becomes a public and political responsibility.

<sup>1</sup>Recent debates about normalizing breastfeeding have attacked this particular slogan which is argued to have been acceptable to the global artificial feeding industry (Gribble; Berry and Gribble).

<sup>2</sup>The title of a recent article in the popular online magazine (see Dutton).

<sup>3</sup>The International human milk banking community has supported my work on the cross-cultural social history of human milk banking, and has invited me to present these findings in a number of plenary papers that are in preparation for publication.

<sup>4</sup>The Million Dollar Babies, the Dionne Quintuplets, helped to establish an increased recognition of the value of human milk for premature infants in particular (Arnold).

<sup>5</sup>Human Milk Banking Association of North America (HMBANA) is a voluntary professional association for human milk banks ([www.hmbana.org](http://www.hmbana.org)).

<sup>6</sup>Other internet based networks such as HM4HB and EatsOnFeets do not support commercial transactions but will facilitate non-commercial milk exchange

relationships.

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