# A Life Cycle Approach to Food Justice: The Case of Breastfeeding

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## ABSTRACT

The focus on food within environmental justice scholarship and activism has rapidly advanced as issues such as differential access to healthy food, the distribution of hunger and obesity, and the working conditions of agricultural workers have garnered much deserved attention. This has spawned a new research agenda under the moniker of "food justice." In this article, we contend that food justice research can benefit from employing the "environmental inequality formation" approach outlined by Pellow, which argues that environmental inequalities are the product of historical processes which involve multiple stakeholders with varied motives. Most importantly for this article, however, is his contention that these inequalities need to be addressed via a *life cycle* approach. We take this directive literally, and employ a cradle to the grave approach to food justice, or what we call the *food cycle*. This approach highlights how food inequalities occur in different ways and rates at different stages in the human life cycle. Here we focus on the very beginning of the food cycle by exploring breastfeeding and the food consumed by our most vulnerable population, infants. The case of breastfeeding helps to expand our understanding of food justice by unpacking some of the structural impediments that play a role in the disproportionately low rates of breastfeeding among women of color and the working classes. We conclude that elucidating food inequalities as they pertain to race, class, gender, and age will only increase the vitality of the field and can catalyze necessary changes to ensure food justice for all populations.

## INTRODUCTION

**E**NVIRONMENTAL JUSTICE SCHOLARS and activists have redefined *environment* from a nebulous "out there" to the concrete places where we live, work, and play. More recently, notions of environmental justice have broadened from the disproportionate burden of environmental "bads" to the disproportionate access to environmental "goods" due to *environmental privilege.*<sup>1</sup> Such goods include green spaces and infrastructure, but the most important of these goods is healthy and culturally appropriate food.<sup>2</sup> Food is deeply woven into the economic, cultural, political, and ecological fabric of our lives, and the inclusion of this good within the environmental justice rubric is an important development. Food justice scholars have addressed issues such as differential access to healthy food, the distribution of hunger and obesity, and the working conditions of agricultural workers.<sup>3</sup> Gottlieb has argued that food justice can be used as an umbrella under which to address food inequalities and simultaneously set the foundation for changing the entire agrifood system.<sup>4</sup>

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<sup>&</sup>lt;sup>1</sup>Pellow, David. "We Didn't Get the First 500 Years Right, So Let's Work on the Next 500 Years': A Call for Transformative Analysis and Action," *Environmental Justice* 2 (Mar. 2009): 3–6.

<sup>&</sup>lt;sup>2</sup>Gottlieb, Robert. "Where We Live, Work, Play... and Eat: Expanding the Environmental Agenda," *Environmental Justice* 2 (Mar. 2009): 7–8.

<sup>&</sup>lt;sup>3</sup>Alkon, Alison and Julian Agyeman (eds). *Cultivating Food Justice: Race, Class and Sustainability*. Cambridge, MA: MIT Press, 2011.

<sup>&</sup>lt;sup>4</sup>Gottlieb, Robert. "Where We Live, Work, Play... and Eat: Expanding the Environmental Agenda."

We contend that food justice research can benefit from employing the "environmental inequality formation" approach outlined by Pellow, which argues that environmental inequalities are the product of historical processes which involve multiple stakeholders with varied motives.<sup>5</sup> Most importantly for this article, however, is his contention that these inequalities need to be addressed via a life cycle approach. We take this directive literally, and employ a cradle to the grave approach to food justice, or what we call the *food cycle*. This approach highlights how food inequalities occur in different ways and rates at different stages in the human life cycle. For instance, the United States is home to over 17 million food insecure children, representing roughly 35% of the total population of food insecure Americans.<sup>6</sup> This is especially important because inadequate nutrition inhibits physical and cognitive development, thereby limiting future opportunity. At the other end of the food cycle, seniors often have difficulty meeting their specific nutritional needs due to physical immobility, health problems, inability to prepare meals, and transportation challenges. Moreover, and not surprising, seniors are more likely to be food insecure if they are African American or Latino/a.<sup>7</sup>

Here we focus on the very beginning of the food cycle by exploring breastfeeding and the food consumed by our most vulnerable population, infants. The case of breastfeeding helps to expand our understanding of food justice by unpacking some of the structural impediments that play a role in the disproportionately low rates of breastfeeding among women of color and the working classes. Although we acknowledge that for physically capable women breastfeeding is a choice, we argue that several exogenous factors limit the ease with which this choice can be realized by certain groups. We conclude that elucidating food inequalities as they pertain to race, class, gender, and age will only increase the vitality of the field and can catalyze necessary changes to ensure food justice for all populations.

#### BREASTFEEDING AND HEALTH

According to every major health institute babies should be breastfed if at all possible.<sup>8</sup> UNICEF emphasizes the point: "Improved breastfeeding practices and reduction of artificial feeding could save an estimated 1.5 million children a year. $\bar{"}^9$  Breast milk is the best food for babies because it meets all their specific nutrition needs with the right amount of fatty acids, lactose, water, and amino acids necessary for growth and vitality. Breast milk also protects babies from illness, as eighty percent of cells in breastmilk are macrophages, cells that kill viruses, bacteria, and fungi. Mothers also produce antibodies to diseases present in their specific environment and pass these on to their babies. This protection leads to lower rates of hospital admissions, ear infections, respiratory and urinary tract infections, and diarrhea compared to formula fed babies.<sup>10</sup> In addition, breastfed babies have lower incidence of sudden infant death syndrome, leukemia, asthma, and obesity.<sup>11</sup> While researchers have long concluded that children born to diabetic mothers are more likely to be obese, recent findings reveal that these high risk children are significantly protected from this risk if they are breastfed.<sup>12</sup> This is especially important for Native and African American communities which have elevated risks of diabetes. Breastfeeding is also believed to be associated with greater cognitive and psychological development, due in part to the security and comfort it provides infants.<sup>13</sup> For these and many other reasons, the World Health Organization (WHO) recommends breastfeeding for at least the first two years of a baby's life.<sup>14</sup>

Despite the widespread dissemination of the "breast is best" message, rates of breastfeeding continue to fall below national goals, and lag behind those of economically equivalent countries.<sup>15</sup> These rates are even lower for women of color and the working classes, and we contend that these discrepancies are significantly linked to the structural elements of American society.

# STRUCTURAL IMPEDIMENTS TO BREASTFEEDING IN THE U.S.

Race and class are effective predictors of breastfeeding rates in the U.S. African American mothers are less likely to breastfeed than any other group, with 60% initiating breastfeeding and only 13% nursing at twelve months.  $^{\rm 16}$ Asian mothers have the highest rates of initiating

American Academy of Pediatrics, 2005.

<sup>3</sup>American Academy of Pediatrics. 2005.

<sup>14</sup>Cindy L. Dennis. "Breastfeeding Initiation and Duration: A 1990-2000 Review." Journal of Obstetric, Gynecologic & Neonatal Nursing, 31 (2001): 12-32.

<sup>&</sup>lt;sup>5</sup>Pellow, David. "Environmental Inequality Formation: Toward a Theory of Environmental Injustice." American Behavioral Scientist 43 (Jan. 2000): 581-601.

<sup>&</sup>lt;sup>6</sup>Nord, Mark, Alisha Coleman-Jensen, Margaret Andrews, and Steven Carlson 2010. "Household Food Security in the United States, 2009." United States Department of Agriculture/Economic Research Service: <http://www.ers.usda.gov/publications/ err108/>.

<sup>&</sup>lt;sup>7</sup>Ziliak, James P. and Craig Gunderson. "Senior Hunger in the United States: Differences Across States and Rural and Urban Areas." University of Kentucky Center for Poverty Research Special Reports. (Sept. 2009) <http://www.ukcpr.org/Publications/ seniorhungerfollowup.pdf[v]>.

<sup>&</sup>lt;sup>8</sup>These include: the American Academy of Pediatrics, the World Health Organization, the United Nations Children's Fund, and the Food and Drug Administration.

<sup>&</sup>lt;sup>9</sup>UNICEF, State of the World's Children 2001: <http://www .unicef.org/sowc01/maps/maps/map1nf.htm>.

<sup>&</sup>lt;sup>10</sup>American Academy of Pediatricians. Policy Statement: Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children. Section on Breastfeeding. Pediatrics 115 (2005): 496-501.

<sup>&</sup>lt;sup>12</sup>Crume, Tessa L. et al. "Long-Term Impact of Neonatal Breastfeeding on Childhood Adiposity and Fat Distribution Among Children Exposed to Diabetes in Utero." Diabetes Care 34 (Mar. 2011): 641-645.

<sup>&</sup>lt;sup>15</sup>OECD Family Database: < http://www.oecd.org/dataoecd/ 30/56/43136964.pdf>. <sup>16</sup>Breastfeeding Report Card, 2010.

breastfeeding at 83%, while 33% are still nursing a year later.<sup>17</sup> Moreover, women with higher earnings are more likely to initiate and maintain breastfeeding. Mothers with incomes at or above 350% of the poverty line initiate breastfeeding 84% of the time and 27% are still breastfeeding at one year.<sup>18</sup> Conversely, mothers below 100% of the poverty line initiate breastfeeding 67% of the time, while 19% are breastfeeding one year after birth.<sup>19</sup> These divergent rates are particularly troubling considering the link between breastfeeding and infant mortality rates. According to the American Academy of Pediatricians, infant mortality rates after the first month of life are reduced by 21% in breastfed infants, which may partly explain why the infant mortality rate among African Americans continues to be about double the rate for white Americans.<sup>20</sup>

Several factors can begin to account for these divergent rates, chief among these are financial. Due to economic constraints, working class women typically return to the labor force soon after giving birth. This significantly decreases breastfeeding rates as women who work part or full time after delivering generally breastfeed fewer times per day.<sup>21</sup>Although fine grain statistics are lacking, 50% of women with a child under one year of age were in the labor force in 2010.<sup>22</sup> This rate is high in large part because unlike other wealthy nations, little support is given to new mothers in the U.S. While mothers in such countries such as Sweden, Norway, and the United Kingdom are provided at least one year of financial support following a birth, in the U.S. the Family and Medical Leave Act offers new mothers twelve weeks of *unpaid* leave. This makes the U.S. one of only four countries in the world to offer no paid leave to new mothers (the other nations are Liberia, Papua New Guinea, and Swaziland).<sup>23</sup> As such, women unable to afford taking leave from paid employment are faced with the challenge of maintaining their milk supply which will decline and eventually cease without continued pumping or nursing. This necessitates working mothers to pump and store breastmilk, or leave work to feed their baby every few hours. Women with low paying jobs seldom have the freedom to leave work, so working mothers must have their baby fed their breastmilk, which requires owning a breast pump, which are expensive and yet another economic impediment to initiating and continuing breastfeeding.

An additional impediment to breastfeeding for women of color and the working classes is the fracturing of family support networks. Bar-Yam and Darby concluded that a father's favorable attitude toward breastfeeding was the most important factor in a mother's decision to initiate breastfeeding.<sup>24</sup> Such support is undercut for many, however, as a disproportionate amount of reproductionage African American men are incarcerated after conception or soon after birth. In 2006, for instance, 1 in 9 African American men of reproduction age (20-35 years old) were incarcerated. These imprisonments are often directly tied to the "War on Drugs." The impacts of this War are clear, as 26 times more African Americans were admitted to prison in 2000 than in 1983, the dawn of this War.<sup>25</sup> Alexander declares, "In the drug war, the enemy is racially defined"26 and statistics support this claim. African Americans, whites, and Latinos use drugs and commit drug crimes at very similar rates, but are incarcerated at disparate rates.<sup>27</sup> Sheldon and Brown note that African Americans make up about 12% of the U.S. population and 13% of monthly illicit drug users, but make up about 35% of those arrested for possession and 74% of those sentenced to prison for drug offenses.<sup>28</sup> While the discrepant sentences for rock versus powder cocaine are well known, less attention has been given to the phenomenon of "DWB" or "driving while black."29,30 As Glasser notes, "In Florida blacks were seventy-five times more likely than whites to be stopped and searched for drugs while driving."<sup>31</sup> In sum, the targeting of minorities in the War on Drugs removes fathers from the home, precluding the support shown to be the most important factor in initiating breastfeeding.

Inequalities found within the first stage of the food cycle are not confined to the U.S., however, and below we outline two egregious examples found in the "Third World" to illustrate this point: 1) the recent discovery that Inuit breastmilk is toxic due to the contamination of their

<sup>&</sup>lt;sup>17</sup>CDC National Immunization Survey. Provisional Breastfeeding Rates by Socio-demographic Factors, Among Children Born in 2007. <http://www.cdc.gov/breastfeeding/data/NIS data/2007/socio-demographic any.htm>.

<sup>&</sup>lt;sup>18</sup>CDC National Immunization Survey, 2007.

<sup>&</sup>lt;sup>19</sup>CDC National Immunization Survey, 2007.

<sup>&</sup>lt;sup>20</sup>American Academy of Pediatricians. 2005.

<sup>&</sup>lt;sup>21</sup>Fein, Sara N. and Brian E. Roe. "The Effect of Work Status on Initiation and Duration of Breast-Feeding." *American Journal of Public Health*, 88 (1998): 1042–46.

 <sup>&</sup>lt;sup>22</sup>Bureau of Labor Statistics, 2011. < http://www.bls.gov/news.release/famee.t06.htm>.
<sup>23</sup>Fass, Sarah. 2009. "Paid Leave in the United States: A Critical

<sup>&</sup>lt;sup>23</sup>Fass, Sarah. 2009. "Paid Leave in the United States: A Critical Support for Low-Wage Workers and Their Families." <a href="http://www.paidfamilyleave.org/pdf/PaidLeaveinStates.pdf">http://www.paidfamilyleave.org/pdf/PaidLeaveinStates.pdf</a>>.

 <sup>&</sup>lt;sup>24</sup>Bar-Yam, Naomi Bromberg and Lori Darby. "Fathers and Breastfeeding: A Review of the Literature." *Journal of Human Lactation* 13 (1997): 45–50.
<sup>25</sup>Travis, Jeremy. But They All Come Back: Facing the Challenges

<sup>&</sup>lt;sup>25</sup>Travis, Jeremy. *But They All Come Back: Facing the Challenges of Prisoner Reentry*. Washington, DC: Urban Institute Press, 32. 2002.

<sup>2002.</sup> <sup>26</sup>Alexander, Michelle. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. New Press: New York, 96. 2010.

<sup>&</sup>lt;sup>27</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, 2001. Summary of Findings from the 2000 National Household Survey on Drug Abuse, NHSDA series h-13, DHHS pub. no. SMA 01-3549. Rockville, MD.

 <sup>&</sup>lt;sup>28</sup>Shelden, Randall and William B. Brown. "The New American Apartheid." ZNet June 22, 2004.
<sup>29</sup>Russell-Brown, Katheryn. Underground Codes: Race, Crime,

<sup>&</sup>lt;sup>29</sup>Russell-Brown, Katheryn. *Underground Codes: Race, Crime, and Related Fires*. New York: New York University Press, 2004.

<sup>&</sup>lt;sup>30</sup>On August 3, 2010 President Obama signed the Fair Sentencing Act of 2010, which reduced federal sentencing disparities between rock and powder cocaine and eliminated the five year mandatory minimum sentence for simple possession of crack cocaine. See <http://www.opencongress.org/bill/111-s1789/ show>. <sup>31</sup>Glasser, Ira. "Drug Busts=Jim Crow." *The Nation* July 10,

<sup>&</sup>lt;sup>31</sup>Glasser, Ira. "Drug Busts=Jim Crow." The Nation July 10, 2006: 24–26.

#### A LIFE CYCLE APPROACH TO FOOD JUSTICE

food supply, and 2) the marketing and distribution of formula by Nestle.

# **BREASTFEEDING INJUSTICE: A GLOBAL ISSUE**

The Inuit peoples of the far North rely heavily on marine mammals for their sustenance. These animals have large fat reserves to protect them from the frigid waters of the Arctic and the extensive pollution of the world's oceans has resulted in these animals bioaccumulating high levels of polychlorinated biphenyls, heavy metals, and other toxins within these fat stores. About two hundred toxic compounds have been detected in whales, seals, and other mammals thus far.<sup>32</sup> These contaminants are passed on to Inuit mothers and, in turn, to their babies. Marla Cone sums the situation: "The bodies of Arctic people, particularly Greenland's Inuit, contain the highest human concentrations of industrial chemicals and pesticides found anywhere on Earth-levels so extreme that the breast milk and tissues of some Greenlanders could be classified as hazardous waste."33 The effects of this contamination on infants include decreased cognitive development and immune system suppression.<sup>34</sup> Although the toxification of the world's oceans is largely done by the dumping of waste by First World nations and corporations, it is the Inuits that bear the most intimate and tragic consequences from this inequality.

A second example of this global food inequality is found in the case of Nestle and their marketing of formula in the Third World since 1977.35 Nestle has promoted formula as beneficial for infants, going as far as having sales representatives dress as nurses to influence unwitting mothers. Nestle has distributed free samples of formula in these countries, which in many cases has resulted in reducing women's milk production to the point that when the free samples run out women are no longer physically capable of producing milk and must buy formula with their scarce resources. Another key concern is that the populations of many of these countries targeted by Nestle lack the clean water necessary to mix with the powdered formula, resulting in many babies becoming sick and dying from water borne illnesses. Nestle is also critiqued for violations of the International Code of Marketing of Breast-milk Substitutes, by claiming on labels that formula "reduces diarrhea" and "strengthens the immune system."36 Although Nestle has not stopped making formula, the company has provided a focal point for those working to enact structural changes that would support women's ability to provide the healthiest food for babies.

#### RESISTANCE

Around the world various forms of food inequalities are being confronted by groups and individuals alike, and this first stage of the food cycle is no exception. Most notable is the global boycott of Nestle (due to their actions outlined above) which has taken place continuously for over thirty years, making Nestle the fourth most boycotted company in the world.<sup>37</sup> In addition, numerous "nurse-ins" have been staged to protest intrusion into the feeding of babies. For instance, after a woman was asked to disembark an airplane because she was breastfeeding, nurse-ins ensued at Delta ticket counters at nineteen national airports. Thirty women staged a nurse-in at a Chick-fil-A in Florida after a mother was asked to cover up, and a similar nurse-in occurred at an Ohio mall.<sup>38</sup> More recently, Facebook drew fire for declaring photos of breastfeeding women in violation of the company's decency standards. Facebook began deleting pictures and, in true Facebook fashion, a Facebook group called "Hey Facebook, breastfeeding is not obscene" soon had over 250,000 members. A nurse-in at the Facebook headquarters followed, while a virtual nurse-in took place with Facebook members switching their profile pictures to those of breastfeeding mothers. Finally, La Leche League, founded in the 1950s, focuses on mother-to-mother breastfeeding support and aims to broadcast the benefits of breastfeeding to the larger public. For La Leche, the personal is political, and this now international organization helps recapture this critical aspect of mothering from the corporate-medical complex. Despite these and other efforts, however, significant obstacles lie in the path to ameliorating the inequalities that plague this stage of the food cycle.

## CONCLUSION

The inclusion of food within environmental justice scholarship and activism is a critical development, broadening and deepening the paradigm in many important ways. Here, we have suggested the need to address food inequalities through the temporal scale of the food cycle. Critically evaluating the agrifood system from cradle to grave reveals myriad inequalities, and the very beginning of the life cycle is in need of increased scrutiny because of the serious health implications food has for this most vulnerable population. We argue that the

<sup>&</sup>lt;sup>32</sup>Cone, Marla. "Pollutants Drift North, Making Inuits' Traditional Diet Toxic." *Los Angeles Times*, Jan. 18, 2004.

<sup>&</sup>lt;sup>33</sup>Cone, Marla. "Pollutants Drift North, Making Inuits' Traditional Diet Toxic."

<sup>&</sup>lt;sup>34</sup>Cone, Marla. *Silent Snow: The Slow Poisoning of the Arctic.* New York: Grove Press, 2006.

<sup>&</sup>lt;sup>35</sup>Sikkink, Kathryn. "Codes of Conduct for Transnational Corporations: The Case of the WHO/UNICEF Code." *International Organization* 40 (Autumn 1986): 815–840.

<sup>&</sup>lt;sup>36</sup>International Baby Food Action Network. "How Breastfeeding is Undermined." <http://www.ibfan.org/issue-international\_code-breastfeeding.html >.

<sup>&</sup>lt;sup>37</sup>Baby Milk Action: <http://info.babymilkaction.org/nestle briefing>.

<sup>&</sup>lt;sup>38</sup>See for example Susanna Schrobsdorff. "Woman Kicked Off Plane for Breastfeeding." *Time* Feb. 23, 2011: <http://www .time.com/time/specials/packages/article/0,28804,2053230\_205 3229\_2053225,00.html > .

disproportionately low rates of breastfeeding among people of color and the working classes are, at least partly, due to structural impediments such as the limited opportunities to breastfeed or pump breastmilk in low wage jobs, the lack of maternity leave in the U.S., and the fracturing of social support networks by the targeting of minorities in the War on Drugs. Addressing the production and reproduction of food inequalities as they pertain to race, class, gender, *and* age will only increase the vitality of the field and can catalyze necessary changes to ensure food justice for all populations. A food cycle approach is a useful way to start.

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