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How to Feed a Baby: Global Processes and Individual Choices

By

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Doctor of Philosophy

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How to Feed a Baby: Global Processes and Individual Choices

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An abstract of
A dissertation submitted to the Faculty of
the James T. Laney School of Graduate Studies of Emory University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy
in Sociology
2011

Abstract

How to Feed a Baby: Global Processes and Individual Choices

By Anna A. Rubtsova

Parents' decisions about infant feeding may seem to be a matter of individual choice but they are subject to the influence of many social factors. This dissertation studies the impact of global economic, political, and cultural processes on infant feeding decisions worldwide, using world-polity, world-system, and McDonaldization theories. I hypothesize that global factors affect infant feeding practices through changes in both social institutions, such as national legislation, and individual preferences. In one portion of the dissertation, I conduct quantitative analyses of the effects of global factors on rates of exclusive breastfeeding of infants up to six months of age in 47 countries in the year 2000. The results show that both integration into the world economy and general rationalization/McDonaldization are negatively associated with rates of exclusive breastfeeding. Integration into world society (rather than the world economy) has a positive impact on breastfeeding rates, partially via the mechanism of states' adoption of the International Code of Marketing of Breastmilk Substitutes. Another portion of the study examines how global processes affect decision-making by individual caretakers, based on 60 semi-structured interviews with mothers of infants (half in Atlanta, USA, and half in Kiev, Ukraine). I found that women's infant feeding discourse and practices reflect numerous global factors, such as the efficiency criteria connected with McDonaldization and world-cultural scripts promoting breastfeeding (e.g., WHO/UNICEF guidelines on breastfeeding). The impact of global factors is mediated by national contextual factors as well as mothers' personal circumstances, socio-economic status, and micro-level interactions. One of the key mechanisms through which global processes affect individual decision-making is that of identity construction and the redefinition of motherhood. World-cultural processes drive the rationalization of motherhood, which leads to increased reliance on professional advice and specialized literature on child care, development, and parenting. These findings contribute to the sociological literature on globalization by advancing our knowledge of its effects on everyday life. The study also yields implications for policies designed to affect infant feeding practices at the national and international levels.

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Acknowledgments

This dissertation became possible due to help, encouragement, advice, and support by many people. I am greatly thankful to each one of them.

I would like to express my deepest gratitude to John Boli, the chair of my dissertation committee. Thank you John for all your tremendous help with this dissertation and throughout my years at Emory. Also, thank you for being a great teacher who sparked my interest in globalization theory and research, which led to this dissertation. I could not wish for a better mentor.

I am grateful to other members of my committee. To Tim Dowd and Cathy Johnson for their advice and encouragement regarding the choice of my dissertation topic. Also, thank you Tim for providing me with many an advice and guidance, helping to navigate throughout the program. To Mary Ann Glynn for being a wonderful mentor who taught me a great deal about doing academic research, writing papers, and presenting at the conferences. To Matthew Archibald for his invaluable methodological advice and feedback on this dissertation.

I am greatly indebted to all women I interviewed for this study in the US and Ukraine. Their stories, their great dedication to their families and children have been not just "data" for my dissertation but also enriched my life in many wonderful ways, being the source of inspiration and strength. I am also thankful to IBFAN-ICDC for allowing me to conduct research in their archives.

This research would not be possible without the funds provided by the Emory Department of Sociology and the James T. Laney School of Graduate Studies as well as the National Science Foundation Dissertation Improvement Grant (SES-0824959)[*].

Many other people helped me throughout the graduate school. Alex Hicks provided helpful comments and methodological advice on my work. Maggie Stephens has supported me multiple times with her words of wisdom and administrative ingenuity, which made my life as a student easier and saner. I am also greatly thankful to my friends Franziska Bieri and Kristy Gordon for being there for me in life as well as the graduate school. And I cannot thank enough my first mentor from the National Technical University of Ukraine, Ludmyla Evgenievna Dovgan, who instilled in me the love of research and propelled me on a path to graduate studies.

I dedicate this dissertation to my family, without which my life would be meaningless. My deepest gratitude and love are for my parents, Anatoliy Lvovich Rubtsov and Margarita Anatolievna Rubtsova, my husband Slava Mudrenko, and our son Andrei. Thank you for everything.

[*] Any opinions, findings, and conclusions or recommendations expressed in this dissertation are those of the author and do not necessarily reflect the views of the National Science Foundation.

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CHAPTER 1

INTRODUCTION

I first became interested in infant feeding when my son was born in the winter of 2004. Among the many deeply poignant and fascinating experiences associated with having my first child, feeding him stood out as a distinctly emotional and, at times, puzzling and frustrating enterprise. While in the hospital, I was annoyed and surprised by both staff suggestions to introduce complementary formula and the goody bags full of bottle feeding supplies that I received. I enjoyed the closeness and intimacy of breastfeeding. I worried about whether I was producing enough breastmilk for my son. I argued with my child's pediatrician, who encouraged me to temporarily stop breastfeeding in the name of preventing jaundice. I agonized over when and which supplementary foods to introduce. Through my personal experience, reading, and talking to other mothers, I developed a heartfelt interest in this topic. I became cognizant of a complex array of issues connected to infant feeding, ranging from health, to culture, to politics. As a sociologist, I could not but notice the intriguing puzzles associated with infant feeding, especially in global perspective. This conjunction of personal interest, important practical implications related to maternal and child health, and largely unexplored theoretical issues reflecting the operations of global processes led to my dissertation topic.

In this chapter, I outline the empirical and theoretical puzzles connected to infant feeding that emerged early in this research. I then formulate my general research question and introduce the dissertation project, concluding with an overview of the dissertation structure.

Theoretical and Empirical Puzzles

Caretakers'[1] choice of infant feeding methods seems to be a deeply private decision – some women naturally and spontaneously choose breastfeeding while others who do not want to or cannot breastfeed choose the bottle. However, statistical data reveal persistent patterns that are not easily explained in terms of individual preferences or attitudes. Before the 1940s, breastfeeding was the prevailing method of infant feeding worldwide, whereas between the 1940s and the 1970s, breastfeeding declined and bottle feeding was on the rise everywhere. This trend was reversed in the US and much of the developed world in the 1970s and 1980s, but in the less developed world the decline in breastfeeding ended only in the 1990s (Eckhardt and Hendershot 1984; Labbok 2006; Riordan and Auerbach 1998). These data thus show that infant feeding practices exhibit similar patterns around the globe. The question that arises is this: what accounts for these worldwide patterns in infant feeding, and what global processes might be involved in explaining them? The existing literature on infant feeding provides some answers but serious gaps remain in our knowledge about the global processes that affect infant feeding methods.

One of the more important insights provided by the voluminous public health literature is that, although infant feeding practices are influenced by individual physiological (Kehler et al. 2009; Kitsantas and Pawloski 2010) and psychological factors (Fairlie et al. 2009; O'Brien et al. 2008), numerous socio-demographic, cultural and institutional factors are also at work. Many studies focus on socio-demographic factors under the assumption that infant feeding requires resources (e.g., time, money,

[1] When discussing infant feeding decisions, I use the terms 'mothers' and 'caretakers' interchangeably, understanding that although breastfeeding can be done only by mothers, in many cases the decision to breast- or bottle-feed involves other family members, relatives, and acquaintances.

knowledge) that are unequally distributed among different social groups. Thus, research in the USA shows that urban, older, better educated, higher-income, married white women are more likely to breastfeed than rural, younger, less educated, poorer, single women of color (Ruowei et al. 2005; Sparks 2010). For some developing countries, higher education and higher socio-economic status as well as urban location are associated with an increased likelihood of bottle feeding (Grummer-Strawn 1996; Qiu et al. 2009; Wenzel et al. 2010). In both developed and developing countries, mothers' employment is associated with a decreased likelihood of breastfeeding (e.g., Al-Sahab et al. 2010; Cooklin et al. 2008; Ladomenou et al. 2007).

Other research investigates cultural factors influencing infant feeding decisions and practices. A number of studies show that variable cultural beliefs influence the initiation and duration of breastfeeding (Osman et al. 2009; Yovsi 2002). Some of these more culturally-oriented studies look specifically at the breastfeeding practices of immigrants, thus examining the influence of acculturation versus persistent beliefs or practices from immigrants' cultures of origin (Gibson et al. 2005; Groleau et al. 2006; Singh et al. 2007).

Finally, much research examines various social and institutional factors that hinder or promote breastfeeding. Some studies find a positive connection between breastfeeding and spousal support, grandparents' support, or overall social support (Dunn et al. 2006; Nelson and Sethi 2005; Scott et al. 2001). Others connect increased rates of breastfeeding with attendance at breastfeeding classes and the availability of breastfeeding counselors (Bonuck et al. 2005; Peters et al. 2006; Roby and Woodson 2004; Schneidrova et al. 2003). Breastfeeding-friendly hospitals and pro-breastfeeding

attitudes of medical professionals lead to greater breastfeeding rates as well (Bartington et al. 2006; DiGirolamo et al. 2008). In contrast, a number of practices by the baby food industry (free sample distribution, advertising campaigns, the low cost of formula) are shown to have a negative impact on breastfeeding initiation and duration (Adair et al. 1993; Foss and Southwell 2006). Labbock (2006) examined breastfeeding trends in 38 developing countries between 1990 and 2000 and found 15% growth in the exclusive use of breastfeeding, which she attributed to the implementation of several international policy initiatives (e.g., the Baby-Friendly Hospital Initiative) that occurred in the same decade. Finally, several scholars have assessed the negative impact on breastfeeding rates of welfare and labor policies that do not allow for adequate maternal leave after birth (Galtry 2003; Haider et al. 2003).

A few sociological studies of infant feeding go beyond the findings of public health professionals. For example, Blum (1999) provides sociological explanations of class differences in infant feeding practices in the US, tracing the process of social construction and power struggles through which breastfeeding in the 20th century was institutionalized as primarily a white, middle-class affair. Hausman (2003) adds that, in the US, arguments about infant feeding methods reflect attempts by a male-dominated society to come to grips with the historically changing social position of women and resulting transformation in motherhood practices. Apple (1987) notes that, although the baby food industry may be viewed as the obvious culprit for declining breastfeeding rates in the 20th century US and elsewhere, the growing authority of the medical profession and resulting medicalization of motherhood may also be at fault. Finally, Wolf (2001) adds further complexity by arguing that even before the introduction of commercially

produced infant formula in the US, women were abandoning breastfeeding in the early 20th century due to multiple factors connected with the processes of urbanization and modernization.

In sum, public health and sociological literatures on infant feeding uncover numerous biological, psychological, socio-demographic, cultural, and institutional factors that affect infant feeding practices. How does this literature relate to the puzzle outlined above? Why did infant feeding practices all over the world change in similar directions throughout the 20th century? Although the literature does not provide direct answers, it is useful in teasing out possible explanations. First, it reveals the influence of socio-demographic factors, so it may be hypothesized that similar population dynamics (e.g., growing numbers of educated, employed, urban women) all over the world explain worldwide changes in breastfeeding and bottle feeding rates. Second, it asserts that the availability of social support positively influences breastfeeding, so it may be hypothesized that growing individualism has resulted in declining social support for breastfeeding and thus declining breastfeeding rates world-wide. Third, the literature points to the role of the baby food industry, so the globe-spanning activities of multinational producers of baby food may be viewed as an explanation of declining breastfeeding rates. Finally, it indicates the importance of state policies regarding labor and breastfeeding, so world-wide changes in infant feeding practices could be the result of similar policy changes introduced in different nations. The explanations provided above are, however, incomplete and somewhat contradictory. For example, previous research shows that different cultural beliefs are connected to different infant feeding practices, and thus it is not clear why different nations with different cultures should

undergo similar changes in infant feeding practices. It is also not clear what other factors might matter on a global scale, or how an array of factors with opposite effects may interact to produce global change. What is needed, then, is a theory of globalization processes that will help make sense of the factors involved.

The sociological literature on globalization analyzes cultural, economic, and political factors involved in globalization, examines the causes and effects of globalization, and studies the ways that the global interacts with the local. Although this literature has considered various issues related to motherhood – e.g., abortion (Santa-Olaya et al. 1999) and fertility (Barrett and Frank 1999) – there is little research on globalization and infant feeding. At the same time, numerous observations indicate that globalization matters for infant feeding. Not only did infant feeding patterns around the world change in similar directions throughout the twentieth century, but declining breastfeeding rates became a prominent global issue. In the 1970s, the aggressive marketing activities of baby food companies became the focus of public controversy. Many international non-governmental organizations formed to advance the cause of breastfeeding. These organizations were instrumental in putting and keeping the issue of infant feeding on the agenda of the World Health Organization. As a result, the International Code of Marketing of Breastmilk Substitutes (ICMBS, or the Code)[2] was adopted by the World Health Assembly in 1981. Many other international policy initiatives promoting breastfeeding followed. At the same time, multinational producers of formula expanded the reach of their products and marketing campaigns to the farthest corners of the globe (Baumslag and Michels 1995).

[2] Even though IC is a more commonly used abbreviation for the International Code of Marketing of Breastmilk Substitutes, I use ICMBS to make the Code more readily identifiable among many other abbreviations used throughout this text.

Dissertation Overview

The central research question of this study is how global cultural, political, and economic processes affect infant feeding practices worldwide. I theorize that globalization affects infant feeding through changes in both social institutions (e.g., national legislation) and individual preferences. Therefore, this project has two main components. The first is concerned with institutional changes in infant feeding, investigating how global processes affect national breastfeeding rates. This research component uses quantitative data to draw inferences from statistical analyses. The second component investigates whether and how global processes directly influence individual decision-making regarding infant feeding methods. This component is concerned with meaning-making processes and thus uses qualitative data in the form of in-depth interviews with 30 Ukrainian and 30 US mothers of infants. My multi-method research design not only strengthens the validity of my findings through triangulation, but it also allows for theoretical development focusing on how macro-level global processes interact with local cultural contexts and individual circumstances.

This dissertation makes four theoretical and empirical contributions. First, by focusing on such a seemingly mundane practice as infant feeding, the study advances our knowledge of the effects of globalization in everyday life. Second, it improves our understanding of the macro-micro link by focusing on the interaction between global and individual processes. Third, it contributes to the multidisciplinary literature on infant feeding by considering global-level factors that have not been assessed previously. Last, the study offers implications for policies designed to affect infant feeding practices at the national and international levels.

In Chapter 2, I draw on sociological theories of globalization as well as the public health literature on infant feeding to develop a theoretical framework for my study. I first present historical background information about infant feeding as a global issue, providing a context that facilitates greater insight when applying sociological theories of globalization. I then discuss my overall theoretical approach within the world-culture perspective. Last, I use four theories of globalization – rationalization/McDonaldization, world-system, world-polity, and macro-anthropological theories– to generate hypotheses concerning the impacts of global factors on infant feeding decisions and practices. Since I am interested in the interaction between local and global factors, I also review the public health literature to identify key meso- and micro-level variables affecting infant feeding.

Chapter 3 provides a detailed methodological account of the study. I outline my specific research questions, explain the rationale for using a multi-method research design, and provide methodological details for both the quantitative and qualitative components of the dissertation. For the quantitative component, I discuss data sources and sample selection and provide extensive explanations of variable operationalization and measurements; I also explain the choice of OLS regression with robust standard errors as my principle strategy of data analysis. For the qualitative component, I first explain how my theoretical conceptual framework relates to the research design. I then discuss sampling and recruitment, justifying my choice of Kiev (Ukraine) and Atlanta (USA) as the research sites. Finally, I describe my samples and explain why I used in-depth interviews, qualitative content analysis, and thematic coding as my strategies of data collection and analysis.

Chapter 4 presents the results of my quantitative analyses of the impact of global cultural, political, and economic processes. The regression analyses of the rate of exclusive breastfeeding of infants up to six months of age in 47 countries in the year 2000 show that both integration into the world economy and general rationalization or McDonaldization are negatively associated with exclusive breastfeeding. In contrast, integration into world society (rather than the world economy) has a positive impact on the rate of exclusive breastfeeding, partially via the mechanism of states' adoption of the International Code of Marketing of Breastmilk Substitutes.

Chapter 5 opens the qualitative component of my dissertation by outlining the socio-cultural background of infant feeding in the two countries I have chosen for my in-depth comparison, the US and Ukraine. For each country, I describe the historically prevailing methods of infant feeding in conjunction with social institutions that emerged to support them. I also discuss how global processes, especially those occurring after the 1970s, led to institutional changes in infant feeding traditions in the US and Ukraine.

Chapter 6 offers the first portion of my qualitative analyses of the interviews with the US and Ukrainian mothers. I consider how infant feeding decisions are affected by both country-specific institutions and McDonaldization processes involved in globalization. The chapter addresses women's decisions regarding three issues: initiating breastfeeding, supplementing with formula, and introducing complementary foods. My findings suggest that the processes of McDonaldization matter for mothers' infant feeding discourse and practice in both US and Ukraine, but their effects are mediated by local cultural institutions as well as world-cultural scripts promoting breastfeeding.

Chapter 7 completes the discussion of my qualitative findings, this time focusing on the impact of global processes stemming from the world polity and the world system. In the first part of the chapter I consider the effects of world-cultural scripts on women's decisions to breastfeed, comparing the US and Ukrainian cases. The second part investigates how processes of commodification, Westernization, and consumer resistance are reflected in mothers' infant feeding discourse and practice. I uncover complex mechanisms through which global processes are mediated by micro-level variables to constitute individual decisions and practices.

In Chapter 8, I bring together the findings from the quantitative and qualitative components of my study, drawing conclusions about mechanisms through which global processes affect changes in infant feeding practices world-wide. In the section on theoretical implications, I move from the specific case of infant feeding to more abstract theoretical propositions about the ways in which global processes affect individuals. In the last section, I discuss the policy implications of my findings concerning the effects of ICMBS and other international policies promoting breastfeeding.

The most important theoretical implications of this dissertation revolve around the issues of macro-micro links and specific mechanisms through which global processes affect such everyday aspects of human life as infant feeding decisions and practices. With respect to nation-states, my study reveals the complex and conflicting impacts of such diverse global factors as rationalization/McDonaldization, integration in the world-economy, and participation in world society. Despite the fact that both increasing McDonaldization and integration in the world-economy push in the direction of greater bottle feeding, the global tendency for growing breastfeeding rates is explained by the

proliferation of world-cultural scripts and institutions promoting breastfeeding and exclusive breastfeeding. My interviews with mothers in the USA and Ukraine not only reveal similar impacts of global factors on individual infant feeding decisions and practices, but also lead to important theoretical conclusions, especially in relation to the world-culture perspective.

This study joins a small but growing list of world-culture research that gives attention to globalization's effects on individuals, not just states and organizations (e.g., Boyle et al. 2002; Eade 1997; Hannerz 1992; Schofer and Hironaka 2005). I identify specific conditions under which global factors affect individual decisions and practices, and I offer propositions about the ways in which the effects of global factors are mediated by local institutions, social interaction, and individual circumstances. Finally, I theorize the mechanisms of globalization's impact on processes of individual identity construction as they relate to infant feeding choices.

On a more practical level, the dissertation has essential policy implications. On the one hand, my findings point to the noticeable impact of international policies promoting breastfeeding, such as the International Code of Marketing of Breastmilk Substitutes, the WHO/UNICEF Baby-Friendly Hospital Initiative, and the Innocenti Declaration, on both nation-states and individual caretakers. On the other hand, I identify numerous barriers to successful policy implementation and propose culturally-sensitive solutions. For example, in Northern America the availability of family support (Dunn et al. 2006; Nelson and Sethi 2005) has been shown to have a positive effect on breastfeeding. However, my findings reveal that in Ukraine older family members (e.g., grandmothers), even though generally supportive of breastfeeding, oftentimes promote

early introduction of supplementary foods, which contradicts WHO/UNICEF recommendations of exclusive breastfeeding up to six months of age. I therefore conclude, among other things, that successful policies of breastfeeding support should take into account culturally-specific roles in infant feeding decisions of various family members and, when appropriate, include grandmothers as well as other members of extended family in educational programs of breastfeeding support.

CHAPTER 2
THEORETICAL FRAMEWORK

In previous chapter, I introduced infant feeding as a socially constructed phenomenon. The growing multidisciplinary literature shows that infant feeding decisions and practices can be affected by such factors as women's socio-demographic characteristics, the availability of social support, hospital practices, local cultures, and national welfare policies (Adair et al. 1993; Blum 1999; Bosnjak et al. 2009; DiGirolamo et al. 2008; Haider et al. 2003; Yovsi 2002). This dissertation builds upon these studies while introducing the global dimension. I argued in the introduction that the social construction of infant feeding operates increasingly at the global level. Therefore, the general research question considered by this dissertation is whether and how global cultural, political, and economic processes affect infant feeding practices worldwide. I have also hypothesized that globalization affects infant feeding through changes in both social institutions (e.g., national legislation) and individual beliefs and preferences. Therefore, more specifically, I ask:

(1) Do global economic, political, and cultural processes affect national breastfeeding rates?

(2) How and under which circumstances do global processes affect infant feeding decisions by individual caretakers?

To generate my hypotheses, I use three sociological theories of globalization – rationalization/McDonaldization, world-polity, and world-system – to make predictions about both large-scale social processes and individual-level impacts of global factors. I also review the public health literature on infant feeding to identify relevant micro-level

factors, and I bring macro- and micro-level factors together, discussing a macro-anthropological theory of globalization.

I open this chapter with a brief history of infant feeding as a global issue, definitions of key terms, and discussion of my overall theoretical framework and this study overview. I then proceed to review sociological theories of globalization. The last section discusses the micro-level factors identified by public health and sociological literatures as well as possible macro-micro links.

A Brief History of Infant Feeding as a Global Issue

The related issues of declining rates of breastfeeding and the aggressive marketing strategies of infant formula producers first grabbed international attention in the 1970s. This was a propitious period for the emergence of controversy over the marketing of infant formula because the issue of corporate social responsibility was rapidly emerging on the global agenda (Dashwood 2004). A growing number of newly independent developing countries were demanding economic justice in the form of the New International Economic Order (NIEO), working mainly through the United Nations Conference on Trade and Development (UNCTAD). Among their various demands, they called for an international treaty governing multi-national corporations (MNCs). As a result, "[i]n 1972, the United Nations Economic and Social Council (ECOSOC) sponsored a resolution requiring the monitoring of MNC activities. In 1974, the Commission on Transnational Corporations was established in order to negotiate a code of conduct for MNCs" (Dashwood 2004: 193). Other important precursors of the transnational breastfeeding movement were the feminist health movement, natural foods

and the natural childbirth movements in the US, which also gained momentum in the 1960s and 1970s (Blum 1999).

Before the 1970s, however, the purported negative impact of infant formula use on breastfeeding rates was hardly a concern of intergovernmental or international nongovernmental organizations.[3] In fact, various intergovernmental organizations were themselves involved in distributing breastmilk substitutes to malnourished infants in the Third World. For example, in the 1960s UNICEF was distributing annually about two million pounds of powdered milk (Baumslag and Michels 1995: 148). Earlier, in the late 1940s, UN agencies were concerned with the problem of infant protein malnutrition in tropical and subtropical regions and sought ways to supplement breastmilk with other foods high in proteins. One result of this concern was formation in 1955 of the Protein Advisory Group (PAG), a body under the joint auspices of FAO, WHO, and UNICEF (Sethi 1994). While originally PAG focused mostly on technical and scientific issues related to infant feeding, gradually it started paying attention to institutional issues and, in particular, the international producers of infant formula (Sethi 1994). Finally, a PAG consultant, Dr Derick B. Jeliffe, wrote a paper that connected declining breastfeeding and rising infant mortality rates with the marketing activities of baby food companies. Jeliffe was instrumental in organizing a special meeting held in 1970 in Bogota, Colombia, which included pediatricians, representatives from the industry, and representatives from the UN. This was the first instance in which concerns about the industry's impact on breastfeeding were voiced to industry representatives (Chetley 1986). A series of other meetings followed, and a PAG meeting in Paris in June, 1972, produced 'PAG Statement

[3] La Leche League International, one of the first nongovernmental organizations involved in the promotion of breastfeeding, was created in the US in 1956. It did not adopt an international focus, until 1964, however, and even then it was not involved in political activism but worked with individual mothers.

No. 23,' which affirmed that breastmilk was best, but was also rather tolerant of the promotional strategies practiced by baby food manufacturers. The larger medical community was also generally lenient towards formula use before the 1970s (Apple 1987).

The public controversy over aggressive marketing activities by baby food companies and their effects on breastfeeding first emerged in Europe. In 1974, British journalist Mike Muller published his report *The Baby Killer,* where he argued that infant formula use promoted by baby food companies caused malnutrition and the death of infants in the Third World. The report and a related lawsuit by Nestlė sparked public awareness of the issue in Europe. In 1978, the aggressive marketing of infant formula grabbed public attention in the US when a coalition of non-governmental organizations declared a boycott of Nestlé products. The growing controversy over infant formula in the US and Europe, involving numerous NGOs, churches, grass-roots movements, politicians, and baby food companies, was instrumental in putting the issue of infant formula on the agenda of the World Health Organization. In 1981, the World Health Assembly adopted the International Code of Marketing of Breastmilk Substitutes (ICMBS or the Code)[4], with 118 countries voting for the Code and only the US voting against it. The Code was designed as an international policy instrument to reduce aggressive marketing practices by baby food companies; it prohibits advertising and promotion of breastmilk substitutes to the general public or through the health care

[4] The Code stipulates that baby food companies should not: promote their products in hospitals, shops, or to the general public; give out free samples of formula; give gifts to health workers; promote food or drink for babies; or give misleading information. In addition, there should be no contact between baby milk company sales personnel and mothers; labels must be in a language understood by the mother and must include a clear health warning; baby pictures may not be shown on baby milk labels; the labels must not include language that idealizes the use of the product (Baby Milk Action 2007)

system (Baby Milk Action 2007; UNICEF 2007). The Code was passed as a non-binding document, leaving it to countries' discretion to implement its recommendations in their national legislation. Nevertheless, by the year 2009, seventy-five countries had implemented at least some provisions of the Code. Some thirty countries have implemented most of the Code provisions as national, legally enforceable measures, another forty countries have adopted some or most provisions of the code in the form of voluntary measures, and twenty-two countries have draft laws under consideration (IBFAN 2009).

Despite the fact that the Code was non-binding on states, it kept the issues of infant formula marketing and breastfeeding on the international agenda. In 1979, the International Baby Food Action Network (IBFAN) was created in connection with WHO's Code development. After 1981, the monitoring of the Code implementation became one of major tasks of IBFAN. Over the years, IBFAN has expanded to include more than 200 local groups in over 100 countries worldwide (IBFAN 2007b); it has been working both to promote the importance of breastfeeding to caretakers all over the world and to lobby relevant intergovernmental organizations.

After 1981, many important international policy developments occurred. A number of WHA resolutions reaffirmed its commitment to the Code. The Resolution of the 39th World Health Assembly in 1986 banned free or subsidized supplies of breastmilk substitutes to hospitals. The scope of international policies broadened to include not only measures limiting the aggressive marketing of formula but also a new emphasis on the promotion of breastfeeding. Thus, in 1989 WHO and UNICEF issued a joint statement, "Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity

Services," which aimed to promote breastfeeding in health care systems and famously outlined the "Ten Steps" leading to successful breastfeeding initiation in maternity wards and hospitals. In addition, in the 1980s the international concern with infant feeding and breastfeeding expanded beyond medical aspects to include human right issues. In 1989, the United Nations General Assembly adopted the Convention on the Rights of the Child, Article 24 of which has a clause saying that governments should ensure the access of parents to information about the advantages of breastfeeding.

A number of important policy developments occurred in the 1990s. High-level policy-makers from 32 countries held a meeting in 1990 at the Innocenti Center in Florence, Italy (Greiner 2000). This "Policymakers' Meeting: Breastfeeding in the 1990s. A Global Initiative" issued a declaration that called on all governments to adopt the Code in its entirety and issue effective maternity legislation. Subsequently, the Innocenti Declaration was endorsed by the World Summit for Children as well as by the World Health Assembly. The World Alliance for Breastfeeding Action (WABA) – another influential international NGO involved in the promotion of breastfeeding – was created in 1991 specifically to monitor implementation of the Innocenti Declaration. Also in 1991, WHO and UNICEF launched the Baby-Friendly Hospital Initiative (BFHI), which is a system of certification of hospitals and maternity wards as "Baby Friendly," based on their implementation of the "Ten Steps to Successful Breastfeeding." Lastly, in this decade a new emphasis on the exclusive breastfeeding of infants up to six months of age emerged, with numerous WHA resolutions as well as the Innocenti Declaration explicitly promoting exclusive breastfeeding.

In the new millennium, the subject of infant feeding remained on the international agenda. In 1999, when the International Labor Organization decided to revise its 1952 Maternity Protection Convention, women's right to breastfeed at work became a contested issue, opposed by corporations but upheld by a coalition of breastfeeding advocacy NGOs. Despite the strong company lobby, the revised Convention passed by the ILO conference in the year 2000 reaffirms women's right to breastfeeding breaks (WABA 2011). The international focus on breastfeeding was further sharpened in 2000 when WHO and UNICEF issued the *Global Strategy for Infant and Young Child Feeding*, which was designed "to revitalize efforts to promote, protect and support appropriate infant and young child feeding" (WHO 2011a). Another international initiative explicitly aimed at maintaining a global commitment to breastfeeding was the Innocenti Declaration of 2005, which reaffirms international support for such measures as maternity protection legislation, ICMBS, and BFHI.

This review shows that infant feeding has indeed become a global issue. Its global aspects are no longer limited to the marketing of baby food by transnational corporations, but also include sprawling international institutions promoting breastfeeding. From its relative obscurity before the 1970s, infant feeding turned into an important item on the international agenda, supported by a growing set of INGOs and IGOs as well as multiple policy initiatives, including such influential and widely ratified international agreements as the UN Convention on the Rights of the Child. The issue I examine here is whether these international developments, along with other factors involved in globalization, have implications for infant feeding practices worldwide. Do global political, cultural, and economic factors affect countries' rates of breastfeeding as well as individual infant

feeding decisions and practices? These are the questions that guide my dissertation, and I turn next to theorizing answers to them.

Overall Theoretical Framework and Definitions

Definitions of Infant Feeding

Infant feeding can take many forms. The categories of breastfeeding, formula feeding and complementary[5] feeding (foods and liquids other than breastmilk and formula) are not mutually exclusive.[6] Even before the invention of commercially produced infant foods, women fed their infants foods and liquids other than breastmilk. Archeological records show that as early as 2000 BC, some babies were wet-nursed or fed animal milks (Riordan and Auerbach 1998). In many contemporary traditional societies it is customary to supplement breastmilk with water or various soft foods, such as cereals (Baumslag and Michels 1995).

Caretakers' decisions about infant feeding involve deciding whether to breastfeed, formula feed or give a combination of breastmilk and formula, as well as when to start supplementing and with what foods or liquids. Therefore, I conceptualize infant feeding as many possible combinations of breastfeeding, formula and supplementary feeding. However, the current prescription by breastfeeding activists, the medical profession, and the World Health Organization is exclusive breastfeeding up to 6 months of age;

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[5] In this dissertation, I will interchangeably use the terms "complementary" and "supplementary" feeding. WHO and UNICEF mostly use the term "complementary feeding" in their documents, but the expression "supplementary feeding" is somewhat more common in the US.

[6] The concept of complementary/supplementary feeding is somewhat fluid. The WHO defines complementary feeding as foods and liquids that are added to the diet when breastmilk (or formula) alone no longer meets the nutritional needs of an infant. According to current WHO recommendations, complementary foods should be introduced at 6 months of age. In practice, however, complementary foods may be introduced for a variety of reasons and well before or after 6 months of age. In colloquial use, formula may also be considered as supplementary to breastfeeding if both methods are used.

thereafter children should receive supplementary foods while continuing with breastmilk to two years of age or beyond (WHO 2007). The medical literature differentiates between full breastfeeding (exclusive or almost exclusive), partial breastfeeding (high, medium, and low), and token breastfeeding. Breastfeeding is considered to be exclusive when no food or liquid other than breastmilk is given to the infant (Labbok and Krasovec 1990). Breastfeeding is almost exclusive when, in addition to breastmilk, a baby may occasionally receive vitamins or minerals, water, juice, or ritualistic foods (Labbok and Krasovec 1990).

World-Culture Perspective

Although I assume that political and economic processes of globalization matter, I am especially interested in the role of world-cultural processes in the constitution of infant-feeding practices world-wide. Therefore, I generate hypotheses using several sociological theories that stress various aspects of globalization – world-polity, world-systems, and McDonaldization theory – but I see my primary theoretical contribution as lying within the world-culture perspective (Lechner and Boli 2005).

Following Roland Robertson (1992: 8), I assume that globalization "refers both to the compression of the world and the intensification of consciousness of the world as a whole." In relation to infant feeding, “compression of the world” means that “local” infant feeding practices in such geographically dispersed countries as Ukraine, the US, and Malaysia are increasingly subject to similar influences. In different locations all over the world, women can be found giving birth in similarly organized medical facilities (Ritzer 1996), feeding their infants similar commercially produced baby foods, and

reading many of the same infant care books (e.g., by Benjamin Spock or T. Berry Brazelton). "The intensification of consciousness of the world as a whole" means that the increased interconnectedness of infant feeding practices does not go unnoticed. In many different countries, medical professionals, scientists, and activists are increasingly concerned about the effects of globalization on infant feeding. For example, since 1992 World Breastfeeding Week has been celebrated in more than 120 countries, and in 2003 the theme of the Week was "Breastfeeding in a Globalized World for Peace and Justice." Thus, the effects of globalization on breastfeeding became the focus of discussions and activities all over the world. Such activities and interactions, in turn, generate new discourses and cultural scripts about breastfeeding. As Robertson (1992) puts it, structural globalization, or "globalization in itself," is accompanied by the intensification of interaction on the global scene and the growth of global "metaculture" or global consciousness.

Within the world-culture perspective, I adopt Lechner and Boli's (2005: 6) conception of world culture as "the culture of world society, comprising norms and knowledge shared across state boundaries, rooted in nineteenth-century Western culture but since globalized, promoted by nongovernmental organizations as well as for-profit corporations, intimately tied to rationalization of institutions, enacted on particular occasions that generate global awareness, carried by the infrastructure of world society, spurred by market forces, riven by tension and contradiction, and expressed in the multiple ways particular groups relate to universal ideas." World culture consists not only of values, norms, and ideologies, but also of ontological and cognitive principles and scripts (Meyer et al. 1987).

World-cultural principles are defined as deeply ingrained shared fundamental cultural assumptions. Whereas these principles are usually abstract in character, they become translated into more specific cognitive schemas or world-cultural scripts (e.g., scientific theories, organizational models, and international policy instruments) that define categories of social actors and provide blueprints for their action (ibid.). For example, the abstract principle that breastmilk is the best nutrition for infants becomes translated into a set of specific prescriptions about what states, healthcare providers, and parents should do to promote breastfeeding. Examples of such world-cultural scripts promoting breastfeeding are the WHO/UNICEF "Ten Steps to Successful Breastfeeding" and the Innocenti Declaration.

Within this perspective, world culture has constitutive properties – it defines categories of social actors and their actions. In relation to infant feeding we can therefore expect to find world-cultural scripts defining proper motherhood, the role of the child, the meaning of breastfeeding, and categories of organizations (e.g., those having consultative status with WHO) that can engage in international decision-making processes about infant formula marketing.

World culture is not free-floating; rather, it is embedded in the institutional structure of world-society (Lechner and Boli 2005). For example, such basic world-cultural principles as individualism, universalism, and rational-voluntaristic authority are reflected in the structures of international non-governmental organizations (Boli and Thomas 1999b). For example, the World Alliance for Breastfeeding Action (WABA 2007) states on its website that breastfeeding is the right of all women and children (principle of universalism). Further, various organizations on the international scene not

only enact but also help to construct world culture (Lechner and Boli 2005). We can therefore expect that INGOs involved in the promotion of breastfeeding apply general world-cultural principles (e.g., individualism or universalism) to construct world-cultural scripts that specifically concern infant feeding (breastfeeding and formula feeding).

Finally, world culture is riddled with contradictions – it is not a consensual or monolithic edifice (Lechner and Boli 2005). Various social actors on the international scene (e.g., activists, medical professionals, and multinational producers of baby food) may promote different understandings of infant feeding. In addition to contradictions specifically attached to the issue of infant feeding, world culture contains various general principles and processes that, when applied to infant feeding, may produce contradictory positions or policies. For example, the principle of individualism may be used to stress the right of individual mothers to choose bottle feeding based on its convenience, but it may also be used to stress babies' right to receive the best food available (mothers' milk). It is not clear how these various contradictory principles and cultural scripts interact to affect change in particular directions. Why, one might ask, despite these contradictions and the lack of consensus, did breastfeeding rates began rising in the 1970s? What role do world-cultural scripts specific to infant feeding play, as opposed to general world-cultural scripts and processes (e.g., rationalization and sacralization)?

In sum, while I recognize that global economic and political processes affect infant feeding, my main goal is to uncover the effects of world culture. I investigate how contradictory world-cultural scripts about infant feeding, and more general world-cultural principles, interact to effect changes in infant feeding attitudes and practices.

Summary of the Research

Chapter 3 provides details regarding research design, data, and methods. I should note, though, that my study combines quantitative and qualitative research methods, and in this theoretical review I generate both qualitative and quantitative hypotheses. Thus, my first research question implies testing the relationship between global processes and national breastfeeding rates[7], which calls for quantitative methodology. For this issue, I conduct regression analyses of the rates of exclusive breastfeeding of infants up to six months of age in 47 countries in the year 2000.

In contrast, my second research question concerns individual meaning-making processes and thus is best studied through qualitative methodology. To investigate whether and how global processes directly affect individual decision-making regarding infant feeding methods, I conducted sixty in-depth semi-structured interviews with mothers of infants (up to one year of age) in two countries that are differentially affected by global factors, the USA and Ukraine.

Infant Feeding and Global Cultural, Political, and Economic Processes

Here I consider three theories of globalization and make predictions as to how global cultural, economic, and political processes affect infant feeding practices world-wide. I discuss how globalization impacts infant feeding through changes in both social institutions and individual beliefs and preferences. Therefore, within each theory I consider its predictions about both large-scale social change and individual-level processes. More specifically, I generate quantitative hypotheses about the impact of

[7] To remind, my two research questions are as follows: (1) Do global economic, political, and cultural processes affect national breastfeeding rates? (2) How and under which circumstances do global processes affect infant feeding decisions by individual caretakers?

global processes on national rates of exclusive breastfeeding. I also make qualitative predictions about the specific mechanisms through which global processes affect infant feeding decisions and practices by individual caretakers around the world and, specifically, in the US and Ukraine.

Rationalization/Modernization/McDonaldization

Individual decision-making regarding infant feeding methods can be considered a matter of individual rationality. Weber's (1978; 1981 (1947); 2002) classic analysis says that, in general, human action can be of non-rational (emotional, traditional), value-rational, or ends-means rational character (see also Kalberg 1980). Thus, an individual mother may decide to breastfeed due to her emotional attachment to her new-born child (emotional action), or she may start breastfeeding because it is customary in her society (traditional action), or the decision to breastfeed may be based on her belief in the value of mother-child bonding (value-rational). Finally, breastfeeding may be selected as a practical solution based on a particular mother's circumstances, such as not being able to afford infant formula products (ends-means rational). While these four types of individual action can be found at all historical times and in all social systems, they are more or less prevalent under different institutional conditions (Kalberg 1980). Thus, charismatic organizations are associated with emotional bases for action, monarchies with traditional action, religion with value-rational action, and markets with practically-rational action. We must keep in mind, though, that, while rational action may be individually-generated, institutional systems are involved in the production of different types of rationality. Weber used special terms to designate these institutionally-produced

types of rationality. For him, religious institutions produced substantive rationality (associated with individual value-rational action), science produced theoretical rationality (based on various abstract mental processes), and bureaucracy produced formal rationality (associated with individual ends-means rational action) (Kalberg 1980).

In many pre-industrial societies, breastfeeding has normally been a taken-for-granted (traditional) practice. Scientific institutions promote theoretical arguments in favor of breastfeeding based on "value-free" research showing that breastfeeding benefits infant development. La Leche League, by contrast, advocates breastfeeding on substantively-rational grounds, stressing "maternalist" values (Blum 1999) that view breastfeeding as an integral part of proper motherhood. Baby food companies promote bottle feeding in advertisements by emphasizing its convenience, efficiency, calculability, and control; these are formal or instrumental rationality characteristics. While different types of institutional systems fostering different forms of rationality may operate synchronically, Weber was especially concerned with the diachronic movement of large historical systems from one type of rationality to another. He observed and predicted increasing rationalization of the Occident and the rest of the world – movement from social systems based on emotional, traditional, and value-rational actions to systems based on formal and practical rationality (Kalberg 1980). If we think of infant feeding in such terms, we can conclude that whereas in the past, infant feeding (breastfeeding) was either mandated by religion (substantive rationality) or was simply a taken-for-granted (non-rational) traditional action, modernity increasingly presupposes a conscious (rational) individual choice of infant feeding method based on formal criteria of efficiency in line with bureaucratized modern systems (formal rationality).

Weber did not explicitly connect rationalization to globalization but Ritzer (1996; 1998) does so. For Ritzer, modernity is associated with the expansion of formal rationality, that is, "the search by people for the optimum means to a given end is shaped by rules, regulations, and larger social structures" (Ritzer 1993: 19). In contrast to ends-means rationality, whereby individuals draw on their own resources or consider their own specific circumstances to find the best means to their ends, under formal rationality a host of institutionally-produced "rules, regulations, and structures . . . either predetermine or help them [individuals] discover the optimum methods" (Ritzer 1993: 19).

However, in contrast to Weber's view of bureaucracy as a paradigmatic case of the rationalization process, Ritzer argues that a better contemporary model of rationalization is provided by fast-food restaurants, such as McDonald's, which combine bureaucratic organization with such developments as scientific management and the assembly line. With its emphasis on convenience, efficiency, calculability, predictability, and control, McDonald's is both an outcome of and a vehicle for the further rationalization of societies worldwide. Ritzer prefers the term "McDonaldization" rather than rationalization, arguing that the principles of the fast-food restaurant – efficiency, calculability, predictability, and control – come to dominate "more and more sectors of American society, as well as of the rest of the world" (Ritzer 1996: 293).

Large-scale processes. The global spread of infant formula can be understood in terms of the process of McDonaldization. Whereas breastfeeding is an unpredictable and hardly controllable process, infant formula offers greater efficiency (the quickest way to fill a hungry baby), predictability (caretakers know the exact amount and nutritional value of formula taken by their babies) and control of both caretakers' and infants' bodies

(e.g., it is easier for bottle feeding mothers to be away from their babies). Thus, along with the proliferation of credit cards, processed fast foods, and work-out equipment, commercially produced infant formula fits the Ritzer bill as yet another expression of and vehicle for the further McDonaldization of society. Therefore, I hypothesize that greater rationalization/McDonaldization of societies is associated with increased formula use and decreased breastfeeding.

Hypothesis R1. The higher a country's level of rationalization/McDonaldization, the lower its level of breastfeeding.

Individual-level processes. As noted above, the spread of McDonaldization is associated with the spread of formal rationality: when making decisions, individuals search for optimum means to obtain ends. In McDonaldizing societies, those means are believed to be optimal that offer greater efficiency, calculability, predictability, and control. McDonaldization theory thus predicts that mothers who choose bottle feeding will most likely explain their choice by referring to bottle feeding's greater convenience[8], efficiency (e.g., "It's much quicker than breastfeeding"), calculability ("I know exactly how much formula my child took"), predictability ("With breastfeeding, I never knew how my baby would react to my milk, whether he might get allergic to something that I ate. With formula, it is more predictable."), and control ("Using formula, I feel more in control of my life. I can go out more while other family members feed the baby"). The same considerations also apply to supplementary foods, with ready-made baby foods being the case in point. Whereas making complementary foods at home – cooking and

[8] As noted by Weber, individual non-rational and value-rational actions can be found in all types of institutional systems. I am not arguing that women in highly rationalized societies will make their decisions exclusively based on formal rationality. What I am looking for is the prevalence of discourse stressing convenience, efficiency, predictability, and control, whatever the individual reasoning behind it might be.

pureeing fruits, vegetables, and meats, grinding rice or oatmeal to make baby cereals – may be a time-consuming and unpredictable process, store-bought baby foods offer greater efficiency, predictability, and control. The theory predicts that efficiency criteria should be used in infant feeding decisions by caretakers around the globe. However, the theory expects stronger effects in countries with higher levels of modernization and rationalization, such as the US and other developed countries. Therefore, as applied to the specific cases of the US and Ukraine, I can make the following qualitative hypotheses:

> *Hypothesis Rq1*. The criteria of convenience, efficiency, calculability, predictability, and control will be prevalent in infant feeding discourses of both the US and Ukrainian mothers.
>
> *Hypothesis Rq2*. Because the US has a higher degree of rationalization than Ukraine, the criteria of convenience, efficiency, calculability, predictability, and control will be more prevalent among the US rather than Ukrainian mothers.

World-Polity Theory

World-polity theory (Boli and Thomas 1999c; Meyer et al. 1987; Meyer et al. 1997) conceptualizes the world as a single polity – "a unitary social system, increasingly integrated by networks of exchange, competition, and cooperation, such that actors have found it 'natural' to view the whole world as their arena of action and discourse" (Boli and Thomas 1999b: 14). The world polity is "constituted by a distinct culture – a set of fundamental principles and models, mainly ontological and cognitive in character, defining the nature and purposes of social actors and action" (Boli and Thomas 1999b:

14). Rather than consensual values, world culture is better understood as models of various social actors and taken-for-granted cognitive scripts for action by those actors.

World-polity theory follows Weber in viewing rationalization as central to global processes, but it concentrates on the cultural character of rationalization. Rationalizing progress is assumed to be one of the principles embedded in world culture (Boli and Thomas 1999a, Meyer et al. 1987). World-cultural scripts promote rational production and distribution as means to reach various collective ends, such as justice, equality, economic development, and individual self-actualization. However, like other neo-institutional theories, world-polity theory does not assume that this cultural emphasis on rationality necessarily translates into rational action by social actors. Formal rationality is a cultural legitimation mechanism, producing both substantive and, often, only ceremonial rationality (Meyer and Rowan 1977). World-polity theory also assumes that the process of disenchantment involved in rationalization, which desacralizes nature and society, is accompanied by a simultaneous process of sacralization of social actors, above all the individual (Boli and Thomas 1999a).

In sum, the theory assumes a strong role for world culture. Culture is more than values constraining the behavior of social actors; it includes a set of cognitive scripts that constitute actors' actions and identities (Meyer, Boli and Thomas 1987). In other words, various social actors – e.g., national governments, multinational corporations, and individuals – make decisions not so much through rational analysis of available alternatives but by adopting ready-made models supplied by world culture.

Large-scale processes. Before the 1970s, few global cultural scripts directly related to infant feeding. Perhaps most prominent were advertisements by the

international producers of baby foods, promoting the message that, in terms of nutrition, infant formula was as good as or even better than breastmilk (Baumslag and Michels 1995). The medical profession acquiesced in many respects to such claims by the industry (Apple 1987). Moreover, in the 1960s UNICEF was distributing powdered milk to malnourished infants; this free distribution “gave milk powder the endorsement of health care providers and set the stage for formula marketing in the third world" (Baumslag and Michels 1995: 148). So, before the 1970s, most of the widely available cultural scripts on infant feeding were favorable to bottle feeding.

Alternative world-cultural scripts promoting breastfeeding first emerged in the 1970s in conjunction with the international breastfeeding advocacy movement. Their legitimacy increased markedly in the early 1980s with the adoption of the International Code of Marketing of Breastmilk Substitutes. Since the early 1980s, numerous INGOs and IGOs have led world-wide efforts to promote breastfeeding and to limit aggressive marketing activities by the international producers of formula. Also, in contrast to its earlier acquiescence to bottle feeding (Apple 1987; Wolf 2001), the medical profession has gradually taken a more clearly pro-breastfeeding stance. After 1981, many international policy developments occurred, all of them supporting breastfeeding throughout the world.

In sum, in recent decades world-cultural scripts promoting breastfeeding in general, and exclusive breastfeeding up to six months of age in particular, have proliferated. According to world-polity theory, these world-cultural scripts should shape the attitudes and behavior of various social actors, individuals and organizations alike. Because, after the 1970s, the legitimate world-cultural scripts aimed to limit aggressive

marketing activities by baby food companies and promote breastfeeding, my general hypothesis is that the degree to which a state is embedded in the world polity should have a positive effect on the national breastfeeding rate.

World-polity theory identifies numerous ways through which involvement in the world polity may affect breastfeeding rates. The more a state becomes integrated into world society, i.e., the more diplomatic connections it maintains, the more international treaties it signs, and the more IGOs and INGOs with which the state or individuals are involved, the more the state is exposed to world-cultural scripts in general (Meyer et al. 1997) and to scripts promoting breastfeeding and exclusive breastfeeding, in particular. In turn, world-cultural scripts constitute social actors' actions and identities by, for example, prescribing what states should do in order to promote breastfeeding.

In other words, states around the globe draw on the same world-cultural scripts regarding breastfeeding to establish similar policies and structures, such as national programs of breastfeeding support or ICMBS-based legislation. This process of isomorphic change operates through several mechanisms (Meyer et al. 1997). First, in their search for legitimacy, states copy each others' policies and structures, including those concerning breastfeeding. Second, over time world-cultural scripts on breastfeeding become widely accepted and largely taken for granted, making their adoption an obligation for states. Third, those states that fail to adopt world-cultural models promoting breastfeeding may experience external pressures from breastfeeding-advocacy INGOs, IGOs, and various sciences and professions, as well as internal pressures from civil society advocacy groups, medical professionals, and so on.

In sum, the greater a state's involvement in the world polity, the more likely it is to adopt structures and programs promoting breastfeeding, which in turn should have a positive impact on the national breastfeeding rate. Additionally, greater state involvement in the world polity may be associated with greater individual exposure to world-cultural scripts promoting breastfeeding via, e.g., educational campaigns by breastfeeding-advocacy INGOs, and thus increased individual preference for breastfeeding.

Conversely, states that are poorly integrated into the world polity experience less exposure to and impact of world-cultural scripts promoting breastfeeding and thus are likely to have lower rates of exclusive breastfeeding. As an example, such countries as Myanmar and Somalia, which are relatively isolated from world society, have fairly low rates of exclusive breastfeeding up to six months of age – 15% and 9%, respectively. (UNICEF 2011).

This line of argument leads to the following hypothesis:

Hypothesis WP1. The greater a country's participation in the world polity, the higher its breastfeeding rate.

Since ICMBS was the first and one of most strongly championed international policy initiatives, I also hypothesize that state adoption of ICMBS-based measures is one of the important variables mediating the effects of engagement with the world polity. Those states that are more integrated into world polity will be more likely to adopt ICMBS-based national measures, and these measures, it turn, will have positive effects on breastfeeding by limiting the use of formula.

Hypothesis WP2. The adoption of ICMBS-based legislation has a positive effect on a country's breastfeeding rate.

Another mechanism through which integration into world culture might have positive effects on national breastfeeding rates is through greater sacralization of children. According to world-polity theory, world-cultural scripts drive the sacralization of social actors, constituting different categories of persons (e.g., children) as individuals endowed with special needs, wants and rights. In response to world-cultural scripts promoting breastfeeding, greater sacralization of children should be associated with higher breastfeeding rates. Countries may vary in the degree of sacralization of children due to differing degrees of integration into the world polity and particular local circumstances. Hence, the hypothesis, for the period since the 1980s is as follows:

> *Hypothesis WP3*. The greater a country's sacralization of children, the higher its breastfeeding rate.

Notably, world culture is not monolithic but is riddled with contradictions. The flip side of greater individualism promoted by the sacralization of social actors in world culture is that, under certain conditions, it may encourage mothers to make infant feeding decisions based on their own, rather than their children's, needs, rights and preferences. This contradiction becomes apparent, for example, in feminist writings on infant feeding. As analyzed by Esterik (1989), the conservative feminist argument, which can be found in the discourse of La Leche League International, presupposes a shift of rights from the mother to the child, arguing that womanhood can best be fulfilled through pregnancy, birth, and lactation. However, the liberal feminist argument promoted by some international women's organizations upholds the rights of individual women; breastfeeding is

seen as restrictive, and bottle feeding may be welcomed as a technological solution to the problem of finding compatibility between productive life and reproductive life (Esterik 1989). Therefore, it may be hypothesized that the higher a country's level of cultural individualism, the lower its breastfeeding rate.

Hypothesis WP4. The higher the level of cultural individualism, the lower the breastfeeding rate.

Individual-level processes. According to world-polity theory, world-cultural scripts constitute actions and identities of not only macro-level social actors, such as nation-states or organizations, but also of individuals. Therefore, we can conclude that the same world-cultural scripts promoting breastfeeding and exclusive breastfeeding discussed above should affect infant feeding decisions and practices by individual mothers. Through educational campaigns by breastfeeding-advocacy INGOs, breastfeeding-advocacy Internet sites, and infant care books, parents around the globe learn about the advantages of breastfeeding and about the WHO/UNICEF recommendations of exclusive breastfeeding until six months of age and continued breastfeeding until 2 years or older. In other words, I expect that caregivers in different countries will draw on similar world-cultural scripts promoting breastfeeding and exclusive breastfeeding in their infant feeding decisions and discourses.

I also expect that other important world-cultural scripts that influence infant feeding decisions and discourse are scripts of the sacralization of the individual. World-polity theory assumes that the process of individual sacralization is a central world-cultural process (e.g., Boli and Thomas 1999a). I expect that, in their infant-feeding decisions, mothers influenced by world-cultural scripts will often refer to individual

needs, preferences, rights, and well-being as relevant factors. However, world culture is ambiguous as to whose rights will matter most in the choice of infant feeding methods – those of the mother, or those of the child. World-cultural scripts constitute both women and children as individuals endowed with wants, needs, personalities, and rights; numerous international organizations promote the rights of women and children, often at the same time. I therefore expect that women choosing breastfeeding will be likely to refer to their children's needs to receive the best food available, namely breastmilk. Women choosing bottle feeding will be likely to refer to their own needs and rights to justify their choice.

In sum, world-polity theory expects that in their infant feeding decisions and practices, mothers around the world increasingly draw on various world-cultural scripts, especially those promoting breastfeeding and exclusive breastfeeding as well as the scripts of the sacralization of the individual. In relation to the special case of the US and Ukraine, I can formulate the following hypotheses.

Hypothesis WPq1. World-cultural scripts will be prevalent in the discourse on infant feeding of both Ukrainian and US mothers.

Hypothesis WPq2. World-cultural scripts by INGOs and IGOs promoting breastfeeding and world-cultural scripts of the sacralization of the individual will be most prevalent in the discourse of both US and Ukrainian mothers, but other world-cultural scripts may also matter.

Finally, world-polity theory depicts identity construction as a specific mechanism through which world-cultural scripts influence social actors. The theory, however, mostly develops this proposition in relation to nation-states, noting that states construct their

identities in relation to “rationalized others,” that is, sciences and professions that authoritatively prescribe what legitimate states should do (Meyer et al. 1997). I extend this argument to individuals. By identity I mean "various meanings attached to a person by self and others. These meanings, or self-conceptions, are based on people's social roles and group memberships (social identities) as well as the personal and character traits they display and others attribute to them based on their conduct (personal identities)" (Ibarra 1999). Within the world-polity perspective, I thus predict that world-cultural scripts about infant feeding will affect individual caretakers through the mechanisms of identity construction; the specific processes involved emerge in my data analysis through use of the grounded theory approach (Strauss and Corbin 1990).

Hypothesis WPq3. World-cultural scripts on infant feeding will affect mothers through the mechanism of identity construction.

World-System Theory

World-system theory (Chase-Dunn 1998; Chase-Dunn and Grimes 1995; Wallerstein 1974; Wallerstein 1980) considers globalization in structural terms. The world-system is a single interactive unit conceptualized as “intersocietal networks in which the interactions (e.g., trade, warfare, intermarriage) are important for the reproduction of the internal structures of the composite units and importantly affect changes that occur in these local structures” (Chase-Dunn and Hall 1993: 855).This means, for example, that the dynamics of infant feeding practices in Ukraine, or the failure of Ukraine to pass legislation based on the International Code of Marketing of Breastmilk Substitutes, cannot be understood as phenomena internal to Ukraine, but

instead should be analyzed in terms of Ukraine's structural position within the larger world-system.

The main structural features of the world-system are capitalist economic relations and "a power hierarchy between core and periphery in which powerful and wealthy 'core' societies dominate and exploit weak and poor 'peripheral' societies" (Chase-Dunn and Grimes 1995: 389). Inequality between the core and periphery is constantly reproduced such that less developed societies of the periphery are unlikely to reach the level of mature capitalism as predicted by modernization theory or neo-classical economics (Chase-Dunn 1975); the relative underdevelopment of the periphery is a functional feature of the world-system that is necessary for its survival (Chase-Dunn 1998). The greatest potential for the disruption of system equilibrium comes from the semi-periphery, comprised of large and powerful countries in the Third World (e.g., China) or smaller countries that have reached intermediate levels of economic development (Chase-Dunn 2000) and have some potential for upward mobility.

Although the main features of the world-system are constantly reproduced, it is always evolving. The two primary engines behind the development of the modern world-system are "capital accumulation and geopolitics, in which businesses and states compete with one another for power and wealth" (Chase-Dunn 2000: 111). These dynamics are conditioned by struggles among classes and peripheral resistance to core control, including peripheral resistance to the expansion of commodity relations controlled by the core (Chase-Dunn 1998). It is within this systemic process that the global dynamic of infant feeding practices is to be understood.

Large-scale processes. Commodification is defined as "a process by which social relations become mediated by markets" (Chase-Dunn 1998: 152). Development of the capitalist world-system involves increasing commodification, subjecting ever more areas of human life to market forces. Increasing commodification is evident in the process of infant feeding. Before the 19th century, infant feeding was largely outside the market, breastfeeding being the dominant practice all over the world (Riordan and Auerbach 1998). In the 1850s, scientists first began work on an artificial equivalent of human milk; by the 1860s, the first patented breastmilk substitutes entered the market in Europe and the USA (Riordan and Auerbach 1998). During the twentieth century the market for commercially produced breastmilk substitutes grew at a rapid pace, and by the 1990s the estimated worldwide sales of infant formula reached $3.9 billion, including $1.2 billion in sales in the Third World (Sethi 1994). Of course, not all of this growth in infant formula consumption is due to commodification or the marketing activities of baby food companies. For example, Wolf (2001) shows that in the early twentieth century US, due to rapid modernization and urbanization, women were abandoning breastfeeding even in the absence of widely available commercial breastmilk substitutes. Nevertheless, a large part of this growth can be attributed to deliberate commodification and commercialization efforts. Importantly, commodification is a spatially expanding process; transnational corporations are constantly searching for new markets for their products and international economic integration is an ongoing process. Thus I can conclude that the greater a country's involvement in the capitalist world-system, the greater its commodification and thus its use of breastmilk substitutes, which means lower rates of breastfeeding.

Hypothesis WS1. The greater a country's integration into the world-economy, the lower its breastfeeding rate.

Several mechanisms connect involvement in the world-economy to the commodification of infant feeding. First and most obvious are the promotional activities of the international producers of baby foods. Greater integration in the world-system is usually associated with greater penetration of nation-states by transnational firms (Bornschier and Chase-Dunn 1985) that are eager to expand their sales. For example, until the early 1990s, Soviet Ukraine was relatively weakly integrated into world markets, mostly through foreign trade and technology transfers (ibid.), and foreign brands of baby food and infant formula were largely absent from Ukrainian stores. The Soviet brands of formula were few in number, unsupported by advertising or promotion, and hardly considered prestigious or desirable goods (for details, see Chapter 5). The subsequent breakdown of the Soviet Union promoted increasing integration of newly independent Ukraine in the world-economy and its penetration by transnational firms. Within a decade, the Ukrainian market for baby foods exploded to include formula products by most major transnational producers, including Heinz, Mead Johnson, Wyeth, Abbott, HiPP, Nestle, and Danone (Chapter 5). Needless to say, these products are actively marketed through advertisements and promotional campaigns.

Importantly, world-system theory also notes the increased power of transnational corporations, especially vis-à-vis weaker peripheral states, such as Ukraine (Bornschier and Chase-Dunn 1985; Chase-Dunn 1998). This represents a second mechanism through which increased integration in the world-system may be associated with increased commodification of formula and decreased breastfeeding rates. Powerful transnational

producers of formula may interfere with states' attempts to introduce policies that limit the marketing of baby food or promote breastfeeding (e.g. ICMBS), which is known to have happened on numerous occasions (Sethi 1994). In turn, aggressive marketing and promotion of formula to the general public have been linked to decreased breastfeeding rates (Adair et al. 1993; Foss and Southwell 2006; Rosenberg et al. 2008).

Finally, greater integration into the world-economy may also be associated with cultural elements that promote individual preference for baby food and formula products. Even though world-system theory assumes that culture is of only secondary importance (Chase-Dunn 1998: 88), it nevertheless posits that Western cultural imperialism "propagates core popular culture and the 'preference structures' which create demand for the consumption of core commodities in every part of the globe" (Chase-Dunn 1998: 101). Sklair (2001: 5) makes an even stronger cultural argument with his concept of the culture-ideology of consumerism, defined as "the set of beliefs and practices that persuades people that consumption far beyond the satisfaction of physical needs is, literally, at the center of meaningful existence and that the best organized societies are those that place consumer satisfaction at the center of all their major institutions." It may therefore be assumed that greater integration into the world-economy is associated with a more significant impact of Western cultural imperialism and the culture-ideology of consumerism via, for example, greater exposure to transnational mass media. An increased demand for baby food and formula may be one of the outcomes of this cultural impact. Through advertising, formula can be depicted as more efficient, convenient, modern, or sophisticated than breastfeeding (Esterik 1989). Additionally, in the

developing countries, bottle-feeding may be considered a Westernized practice that anoints formula products as prestigious goods and high-status symbols (ibid.).

Individual-level processes. World-system theory is a macro-level theory; it generally makes few references to individual-level processes. At the same time, the theory assumes that the processes operating at the level of the world-system affect individuals. More recent conceptualizations of the world-system explicitly make individual-level interactions an integral part of the larger world-system analysis: "[t]he modern world-system is understood as a set of nested and overlapping interaction networks that link all units of social analysis – individuals, households, neighborhoods, firms, towns and cities, classes and regions, national states and societies, transnational actors, international regions, and global structures" (Chase-Dunn and Grimes 1995: 388). There are several ways in which world-system processes can affect individual infant-feeding decision-making processes. Here I use the conceptual tools of world-system theory to show how such world-systemic processes as increasing commodification, core/periphery dynamics, class dynamics, cultural imperialism, and cultural resistance should affect infant feeding decisions.

If changing infant-feeding practices are to be understood within the larger dynamics of commodification or resistance to commodification, it is reasonable to hypothesize that mothers who choose bottle feeding will invoke arguments promoted by infant formula companies (e.g., efficiency, predictability, control, and convenience). In contrast, mothers who choose breastfeeding will be more likely to draw on arguments promoted by breastfeeding-advocacy movements, seeing infant formula as unhealthy and baby-food companies as immoral villains. These arguments should apply to core and

peripheral countries alike, which allows me to formulate the following qualitative hypothesis in relation to the case of the US and Ukraine.

> *Hypothesis WSq1*. Both in the US and Ukraine, mothers' discourses reflecting the dominant culture of commodification/consumerism (criteria promoted by baby food companies) or the culture of resistance (criteria promoted by the breastfeeding advocacy movement) are likely to be most prevalent discourses associated with impact of factors stemming from the world-system.

In the periphery, I see additional effects of cultural imperialism at work. For world-system theorists, culture is connected to domination and resistance to domination. On the one hand, culture, understood as consensual norms and ideology (Chase-Dunn 1998), serves to hide, if not resolve, contradictions inherent in capitalism (Wallerstein 1991): it promotes class hegemony as well as Northern hegemony over the South. World culture can best be understood as Western cultural imperialism. On the other hand, transnational movements and peoples in the periphery strive to construct alternative norms and ideologies to counteract hegemonic globalization (Boswell and Chase-Dunn 2000, Evans 2005).

Unlike mothers in the core, mothers in the periphery experience additional effects of cultural imperialism. In many peripheral countries, imported foods constitute status symbols through their association with the West – "[t]he shift to bottle feeding and infant formula is part of the process of delocalization of food resources facilitated by the perception of western foods as prestige goods" (Esterik 1989: 163). Western-produced brand-name infant feeding bottles serve as markers of modern sophistication (Esterik 1989); in contrast, breastfeeding can be viewed as outdated and barbarian. I therefore

expect that mothers in the periphery who choose bottle feeding will often justify their decisions on the grounds that bottle feeding is more modern, urban, and sophisticated. Women in the periphery who choose breastfeeding are likely to do so due to traditional practices or lack of resources, though some may choose breastfeeding as a deliberate act of resistance against Westernized practices. Similarly to the core, some mothers who choose breastfeeding may be exposed to the discourse of the breastfeeding movement, seeing infant formula as unhealthy and baby-food companies as immoral villains. Therefore, in relation to Ukraine, I can add the following hypothesis.

> *Hypothesis WSq2.* In Ukraine, the prevalent discourse on infant feeding is also likely to reflect the influence of Western cultural imperialism (bottle feeding as a modern thing to do) or resistance to Westernization (e.g., breastfeeding as a way to resist Westernized practice of bottle feeding).

Finally, while world-system theory pays attention to class dynamics, it is not theoretically well enough developed to allow predictions as to how infant-feeding practices differ by class. Public health research shows that, in the core, breastfeeding is more widespread among the upper classes and bottle feeding among the lower classes. In the periphery the opposite is the case: breastfeeding is more common among the lower classes, bottle feeding among the upper classes (Riordan and Auerbach 1998). Mothers who are influenced by class ideologies in their infant-feeding decisions should be more likely to justify their decisions on the grounds of moral boundary maintenance, contrasting their infant-feeding practices to those of people from other classes (Lamont 1992, Lamont 2000). For example, US white middle-class women may describe

breastfeeding as part of their identity as mothers and contrast it to other (black, poor, etc.) mothers who subject their babies to the bottle.

Hypothesis WSq3. Both in the US and Ukraine, mothers will contrast their infant feeding practice with practices of mothers from other classes.

The Macro-Micro Link for Infant Feeding

As I showed in Chapter 1, infant feeding is a complex phenomenon affected by numerous factors – physiological, psychological, and social. Clearly, when it comes to individual infant feeding decisions and practices, global processes are not the sole influence. Therefore, it is important to theorize when global factors matter and how they "fit" with other influences. To date, there is little research of this sort. To begin unpacking these conditions of global impact, I first must identify relevant meso- and micro-level variables, drawing on public health and sociological literatures and macro-anthropological theory of globalization. I then make predictions about the mediating effects of the meso-level factors that condition the effects of macro-level processes on infant feeding decisions and practices.

From the Global to the Local and Private

Public health research has identified a number of meso-level variables impacting infant feeding. This literature shows that national and local cultures and institutions are important determinants of infant feeding. Thus, many studies demonstrate that infant feeding practices, such as breastfeeding initiation, the introduction of complementary foods, and the age and methods of weaning, vary by cultural context (Dettwyler 1987;

Groleau et al. 2006; McLachlan and Forster 2006; Osman et al. 2009; Oweis et al. 2009; Riordan and Auerbach 1998; Wil-Lie 2010). For example, in Vietnamese culture, breastfeeding is "embedded in a web of ethnomedical knowledge, life cycle rituals, as well as broader social and family values" (Groleau et al. 2006: 523). The cultural assumption is that mothers can breastfeed only if they have enough vital energy and their postpartum bodies are healing properly, assisted by special traditional foods as well as postpartum rituals such as aromatic baths and massage, usually delivered by maternal grandmothers. Therefore, it is common for Vietnamese mothers who have emigrated to other countries to use formula feeding, as they believe that, in the absence of traditional postpartum practices, breastfeeding may de detrimental to their and their children's bodies (ibid.).

Other important meso-level variables include government policies, media influences, and the practices of the medical profession and health care institutions. Thus, the research shows the negative impact on breastfeeding of welfare and labor policies that do not allow for adequate maternal leave after birth (Galtry 2003; Haider et al. 2003). Other studies associate decreased rates of breastfeeding with the advertising and promotional activities of baby food companies (Adair et al. 1993; Foss and Southwell 2006; Rosenberg et al. 2008). In contrast, medical professionals and institutions have been shown to have mixed effects. A number of hospital practices, such as pacifier use, supplementation with fluids other than breastmilk, C-sections, or the absence of rooming-in (Asole et al. 2009; Dewey et al. 2003; Gagnon et al. 2005) have negative effects on breastfeeding initiation, duration, or the rate of exclusive breastfeeding. On the other hand, hospitals with Baby-Friendly status have been shown to have positive effect on

breastfeeding (Bartington et al. 2006; Chalmers et al. 2009). Also, adequate breastfeeding education by medical practitioners, educational activities by lactation consultants, and breastfeeding classes have all been positively associated with breastfeeding initiation and duration (Finch and Daniel 2002; Grossman et al. 2009).

The public health literature also identifies interactional aspects of infant feeding decisions and practices. Many studies stress the role of encouragement from fathers and grandmothers as predictors of breastfeeding (Mahoney and James 2000; Scott et al. 2001). Conversely, the lack of encouragement from spouses is associated with a decreased likelihood of breastfeeding (Li-Hui et al. 2008). More generally, the availability of social support for mothers, from spouses, extended family, and friends, has been positively associated with breastfeeding (Ching-Man and Chow 2010; Ingram and Johnson 2009; Nelson and Sethi 2005). The sociological literature similarly identifies a strong role for social support – breastfeeding is not "natural," it is a time-consuming enterprise which requires a set of learned skills. In order to breastfeed, women may require help with housework and chores from their spouses, family, and friends; they may also need guidance and advice from other women experienced in breastfeeding (e.g., Blum 1999; Carter 1995).

Women's socio-demographic characteristics represent another important set of variables. In the US, infant feeding practices vary by race; the proportion of ever breastfed infants is highest among white and Mexican-American mothers (McDowell et al. 2008). Also, breastfeeding in the US is associated with higher socio-economic status: urban, older, better educated, higher-income, married women are more likely to breastfeed than rural, younger, less educated, poorer, single women (Ruowei et al. 2005;

Sparks 2010). In developing countries, the reverse may be the case, with higher socio-economic status being associated with bottle feeding (Grummer-Strawn 1996; Qiu et al. 2009; Wenzel et al. 2010). Everywhere, mothers' employment is associated with a decreased likelihood of breastfeeding (e.g., Al-Sahab et al. 2010; Cooklin et al. 2008; Ladomenou et al. 2007).

Finally, infant feeding decisions and practices are affected by women's physiological and psychological characteristics. For example, mothers' smoking and obesity have been shown to decrease the likelihood of breastfeeding (Al-Sahab et al. 2010; Bosnjak et al. 2009; Kehler et al. 2009). Also, mothers' anxiety and depression (Dunn et al. 2006) have been negatively associated with breastfeeding, whereas dispositional optimism and breastfeeding self-efficacy increase the likelihood of breastfeeding (O'Brien et al. 2008).

In sum, infant feeding decisions and practices can be influenced by a host of factors other than those involved in globalization. One central task of this study is to identify when global factors matter and how they interact with other meso- and micro-level factors constitutive of infant feeding. I tackle this task in the qualitative component of my dissertation, using a grounded theory approach (Strauss and Corbin 1990). I next review the macro-anthropological theory of globalization, which provides a useful macro-micro link.

Macro-Anthropological Theory of Globalization

My theoretical review so far might seem to lead to contradictory conclusions. On the one hand, I have argued that global factors exercise similar influences worldwide,

inducing change in infant feeding practices in a similar direction in many countries. On the other hand, sociological and public health research affirms that infant feeding varies across different socio-cultural contexts. This contradiction, however, is resolved by macro-anthropological theory (e.g., Appadurai 1996; Hannerz 1991; Hannerz 1992).

Within this perspective, Hannerz (1992) has persuasively argued that globalization does not lead to a simple form of cultural homogeneity. The world consists not of a mosaic of territorially bounded unique cultures but of a complex and overlapping set of "creolized" cultures. Global cultural flows do not enter culturally-empty localities; local cultures resourcefully interact with global cultural flows. In other words, "local" cultures are better understood as "creole" cultures – creative mixtures of the global and the local (Hannerz 1992). A basic example is the global spread of popular music, which does not necessarily lead to homogenous musical output. Rather, musicians in different countries creatively interact with the popular esthetic by incorporating local and traditional elements, as in the music of Senegalese pop star Youssou N'Dour, who draws on indigenous musical traditions and local language while inflecting them with European (especially French), American, and reggae styles, among others (Taylor 2004).

This perspective also provides a link to the individual level. Under conditions of expanding world culture, individuals are no longer completely embedded in local and national cultures but become, to varying degrees, engaged in transnational cultural flows created by movements of people, ideas, media images, technologies, currencies, and stocks (Appadurai 1996). Within societies, different professions and social groups have differing degrees of access to these transnational cultural flows. On one extreme are "locals" who are wholly embedded in local cultures, while on the other extreme are

"cosmopolitans" who are deeply involved with transnational cultural flows (Hannerz 1992).

In relation to infant feeding, this perspective suggests that, even though global factors have similar impacts in countries worldwide, the nature of these impacts are mediated by local socio-cultural contexts. Despite the fact that breastfeeding rates are growing in different nation-states, countries may engage with world-cultural scripts promoting breastfeeding in strikingly different ways based on their existing institutions and infant feeding traditions. Also, individual caretakers' infant feeding decisions and practices are likely to show country-specific differences as well as varying degrees of impacts of global factors. Therefore, regarding to my qualitative analyses of interviews with the US and Ukrainian mothers, I can hypothesize that their infant feeding discourses and practices will show country-specific differences which will be results of different local socio-cultural institutions.

> *Hypothesis MA1*. Mothers' infant feeding decisions and discourse will show country-specific differences that reflect differences between the US and Ukrainian socio-cultural contexts. These differences will mediate the various effects of global cultural factors.

Conclusions

In this chapter I have presented a theoretical framework examining infant feeding in global perspective. This framework yields predictions about both large-scale changes in infant feeding occurring at the national level and about the impact of global processes on individual infant feeding decisions and practices. I have used three theories of

globalization to make predictions about the impact of global factors at the institutional and individual levels. Table 1 summarizes quantitative hypotheses about the impacts of global cultural, political, and economic factors on national breastfeeding rates. Table 2 provides an overview of qualitative predictions about specific ways through which global factors affect individual decision-makers.

Table 1. Summary of Quantitative Hypotheses

Theory	**Hypotheses**
Rationalization, McDonaldization	*Hypothesis R1*. The higher a country's level of rationalization/McDonaldization, the lower its level of breastfeeding.
World-polity	*Hypothesis WP1*. The greater a country's participation in the world polity, the higher its breastfeeding rate. *Hypothesis WP2*. The adoption of ICMBS-based legislation has a positive effect on a country's breastfeeding rates. *Hypothesis WP3*. The greater a country's sacralization of children, the higher its breastfeeding rate. *Hypothesis WP4*. The higher the level of cultural individualism, the lower the breastfeeding rate.
World-system	*Hypothesis WS1*. The greater a country's integration into the world-economy, the lower its breastfeeding rate.

I have noted earlier that, for individual caretakers, global factors are hardly the sole influence. We need to understand both when (under which conditions) global factors matter and how they interact with other, more micro-level influences on infant feeding decisions and practices. As a first step in this direction, I have identified numerous non-global factors that mediate the influence of global processes, and I have used macro-anthropological globalization theory to make predictions about possible global-local links.

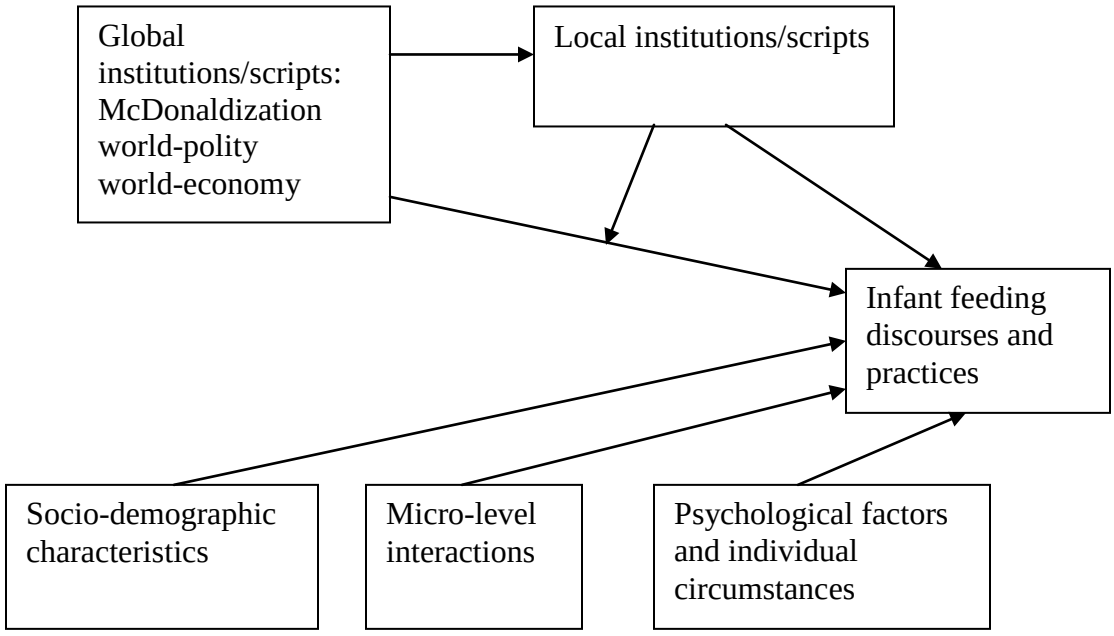
Hypothesis MA1. Mothers' infant feeding decisions and discourse will show country-specific differences that reflect differences between the US and Ukrainian socio-cultural contexts. These differences will mediate the various effects of global cultural factors.

Table 2. Summary of Qualitative Hypotheses

Theory	Hypotheses
Rationalization, McDonaldization	*Hypothesis Rq1*. The criteria of convenience, efficiency, calculability, predictability, and control will be prevalent in infant feeding discourses of both US and Ukrainian mothers. *Hypothesis Rq2*. Because the US has a higher degree of rationalization than Ukraine, the criteria of convenience, efficiency, calculability, predictability, and control will be more prevalent among the US rather than Ukrainian mothers.
World-polity	*Hypothesis WPq1*. World-cultural scripts will be prevalent in the discourse on infant feeding of both Ukrainian and US mothers. *Hypothesis WPq2*. World-cultural scripts by INGOs and IGOs promoting breastfeeding and world-cultural scripts of the sacralization of the individual will be most prevalent in the discourse of both US and Ukrainian mothers, but other world-cultural scripts may also matter. *Hypothesis WPq3*. World-cultural scripts on infant feeding will affect mothers through the mechanism of identity construction.
World-system	*Hypothesis WSq1*. Both in the US and Ukraine, mothers' discourses reflecting the dominant culture of commodification/consumerism (criteria promoted by baby food companies) or the culture of resistance (criteria promoted by the breastfeeding advocacy movement) are likely to be most prevalent discourses associated with impact of factors stemming from the world-system. *Hypothesis WSq2*. In Ukraine, the prevalent discourse on infant feeding is also likely to reflect the influence of Western cultural imperialism (bottle feeding as a modern thing to do) or resistance to Westernization (e.g., breastfeeding as a way to resist Westernized practice of bottle feeding). *Hypothesis WSq3*. Both in the US and Ukraine, mothers will contrast their infant feeding practice with practices of mothers from other classes.

Figure 1 (below) maps out an array of factors relevant to individual caretaker discourse and practices. It shows the impact of local institutions and cultural scripts as well as mothers' socio-demographic characteristics, micro-level interactions with family members, friends, and acquaintances, and psychological and physiological characteristics and personal circumstances (e.g., employment status). Based on macro-anthropological theory, I have also proposed that, depending on their degree of engagement with global cultural flows, global factors may affect individual caretakers directly, or their effects may be mediated by local institutions and scripts. For example, global factors may induce states to adopt national programs of breastfeeding support, which in turn increase the likelihood that individual caretakers will choose breastfeeding over bottle feeding.

Figure 1. Factors Impacting Individual Infant Feeding Decisions



CHAPTER 3

RESEARCH DESIGN AND METHODS

Despite its seeming naturalness and unproblematic character, infant feeding is a complex process affected not only by physiological, psychological but also by multiple social factors, both micro level, such as the availability of support by family members, and macro, such as national welfare policies. The question remains, however, of whether such an ostensibly intimate and individual process can be influenced by the ultimately macro level factors involved in globalization. Conversely, I have inquired in previous chapters about the limits of globalization's impact: when and through which mechanisms do global-level factors become relevant in individual decision-making? This overarching theoretical puzzle, which motivates me in this dissertation, translates into these two specific research questions:

(1) Do global economic, political, and cultural processes affect national rates of exclusive breastfeeding of infants up to six moths of age?

(2) How do global processes affect infant feeding decisions by individuals in the US and Ukraine?

These two questions require different types of methodology. Research question (1) presupposes testing the relationship between global processes and national breastfeeding rates based on hypotheses derived from three sociological theories of globalization – world-polity theory, world-system theory, and the McDonaldization thesis. This deductive approach calls for quantitative methodology allowing statistical inferences. However, such analyses would be incomplete without understanding individual decision-making processes because the final infant feeding decision rests with

individuals. Therefore, research question (2) is designed to investigate whether and through which specific mechanisms global processes affect these decisions. The investigation of individual meaning-making processes calls for qualitative methodology (Flick 1998). The three theories of globalization provide the initial conceptual framework for investigation of this question. The approach here, however, is both deductive and inductive, since the goal is not only to test the impact of global processes on individual infant feeding choices, but to generate new hypotheses regarding the interaction of global processes with local socio-cultural contexts and individual circumstances.

Research Design

To investigate my research questions, I used a multi-method research design, which not only strengthens validity through triangulation, but also allows for theoretical development. To test the hypotheses about the factors affecting national breastfeeding rates, I used quantitative data. Drawing on several publicly available databases, I assembled a data set containing, for the year 2000, national rates of exclusive breastfeeding, along with other relevant indicators, for 47 countries worldwide.

To investigate the hypothesis that global processes directly affect individual decision-making regarding infant feeding methods, I conducted sixty in-depth semi-structured interviews with mothers of infants (up to one year old) in two countries with different degrees of rationalization and integration into world society, the USA and Ukraine. The qualitative portion of this study is designed to separate global processes from local contexts and to assess the impacts of rationalization, sacralization of the individual, commodification, and cultural imperialism and cultural resistance on infant

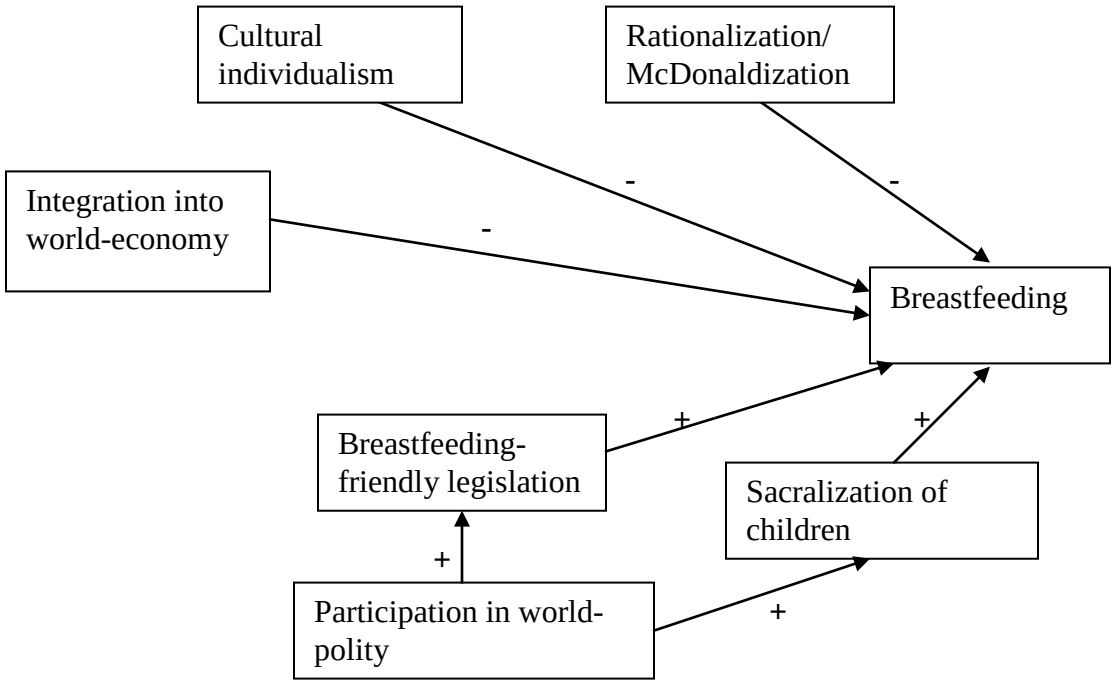
feeding decisions. In both Ukraine and the US, I employed snowball sampling, using as initial connections friends and acquaintances with small children. This snowball sampling approach was necessary because a random sample of the relevant population cannot be identified. Additionally, due to the lack of published research on infant feeding in Ukraine, I collected contextual information on infant feeding – 10 interviews with Ukrainian pediatricians, and popular and medical literature on infant feeding. These are supplementary data used to make sense of the Ukrainian context.

Quantitative Methods

In my quantitative analyses I study factors affecting countries' rates of exclusive breastfeeding of infants (Figure 2). The data for countries' rates of exclusive breastfeeding are available for the greatest number of countries for the year 2000. Therefore, I constructed a data set for the year 2000, drawing on several publicly available data sources: *The WHO Global Data Bank on Infant and Young Child Feeding* by the World Health Organization (WHO database), *World Bank World Development Indicators* (WDI database), *Correlates of War* (COW) project database, Union of International Associations (UIA online database), Freedom House (2000) ratings of political rights, and *IBFAN Reports* (1986-1998). The initial sample for this study included 81 countries with data for national breastfeeding rates; however, due to missing cases for independent variables, the final sample is limited to 47 nation-states.

Dependent variable: exclusive breastfeeding at 6 months. The dependent variable is the percentage of infants who are exclusively breastfed at the age of 6 months or less. The rates for the year 2000 are available from several databases – the World Health

Figure 2. Factors Affecting National Breastfeeding Rates



Organization (WHO 2008), UNICEF (2010b), World Development Indicators (World Bank 2008), and DOLPHN (2011). These databases provide similar or identical rates for the countries considered. The measure of the rates of exclusive breastfeeding at 4 months or less is also available. However, in this case, different databases provide different figures for some countries. Also, this measure is less theoretically meaningful than the rate of exclusive breastfeeding at 6 months of age because the world-cultural scripts specifically promote exclusive breastfeeding until 6 months of age. Therefore, the analyses are focused on countries' rates of exclusive breastfeeding at 6 months or less. This variable has a slightly skewed distribution (.86), which was not corrected by logging; square-root transformation produced a distribution close to normal (skewness of .21), and Box-Cox transformation resulted in zero skewness (see Appendix C). The transformed dependent variable is, however, harder to interpret. Since regressions with

the original and transformed dependent variable produced comparable results (see Table 8, Part II in Chapter 4), I used the original variable in my analyses.

Independent variables

Rationalization/McDonaldization**.** I have interpreted rationalization as two components – McDonaldization and medicalization. Multiple measures of McDonaldization are available. Ritzer (1996; 1998) noted that McDonaldization is inseparable from modernization, so McDonaldization can be measured indirectly by such standard measures of modernization as urbanization and GDP per capita, both available from WDI (World Bank 2008). The latter indicator is logged to correct for skewness. Second, a more direct measure of McDonaldization/rationalization is the prevalence of rationalized information technologies. Whereas multiple measures of information technologies are available from WDI database, only a few of them have data available for countries with known breastfeeding rates for the year 2000 – mobile phone subscribers per 1000 and telephone mainlines per 1000. Both variables were logged to correct for skewness. Last, I produced an index score based on factor analysis of the above four variables (Appendix D).

Medicalization was first conceived as a measure of McDonaldization. Ritzer (1996) discusses the McDonaldization of life and death as rationalization through the medical profession. For my purposes, the medicalization of motherhood (e.g., Apple 1987) is most pertinent: women are increasingly guided by medical recommendations rather than traditional wisdom or intuition in their decisions regarding children's health and well-being. One may argue, for example, that in societies that are more highly

rationalized/McDonaldized, mothers are more likely to immunize their children because immunization offers more predictability and control regarding the risk of infants contracting a disease. However, this is only part of the story, not least because immunization, along with other medical programs for children, is actively promoted by the World Health Organization (e.g., Muraskin 1998). Thus, increased medicalization of motherhood in societies around the world also reflects the impact of world culture via the activities of WHO, UNICEF and various INGOs. The prevalence of immunization is a suitable indicator of medicalization of societies. Such a measure is available from WDI database (World Bank 2008) – immunization against DTP (% children ages 12-23 months who have been immunized).

Integration into the world economy. One of the commonly used measures of countries' integration into the world economy is the sum of exports and imports as a proportion of GDP (Moon 2002). This indicator (logged) is available from WDI (World Bank 2008) or Jacobsen and de Soysa (2006).

Sacralization of children. The work of Viviana Zelizer (1985) helps to operationalize the sacralization of children. Zelizer (1985) argues that the sacralization of children involves putting a higher premium on children's lives. Child sacralization may thus be both an outcome of and a vehicle for lower childhood mortality. Also, "sacred" children become expensive "consumer goods," and thus the sacralization of children is associated with low fertility rates. Therefore, I measure the sacralization of children by three indicators available from WDI (World Bank 2008) – infant mortality rate per 1000 live births, mortality rate of children under five per 1000, and fertility rate, defined as total births per

women. Notably, fertility rate represents an inverse measure of sacralization since I expect that higher sacralization of children should be associated with lower fertility rates.

Sacralization of children is a variable derived from the world-polity theory and is a special case of sacralization of the individual or cultural individualism. According to world-polity theory, INGOs promoting individual rights and well-being are both an expression of and a vehicle for greater cultural individualism (e.g., Boli and Thomas 1999b). Therefore, country's number of memberships in INGOs[9] promoting children's rights is an appropriate measure of sacralization of children.

These data are available from the UIA online database[10] (Union of International Associations 2001). Data collection involved the following process. The database was searched for non-governmental organizations having the words "child" (and its derivatives) or "infant" (and its derivatives) in their names[11]. I conducted this search for each of the 81 countries on my initial list[12]. For each country the search produced a list of INGOs; I then read through the list, checking for the types of organizations, their year of founding, and their aims/activities. I included in the counts of countries' memberships in the children's INGOs only those organizations founded before the year 2000, types A

[9] Country's number of INGO memberships is defined as the number of INGOs to which the residents of a given country belong. For example, by the year 2000, residents of the Central African Republic belonged to nine INGOs promoting children's rights and well-being, such as International Confederation of Parents or SOS-Kinderdorf International, to name a few.

[10] The data in the UIA Online database are constantly updated and reflect the latest numbers for country memberships in the international organizations. The data for countries' membership in the children's INGOs were collected in the year 2008. So, the absolute numbers of INGO memberships may be somewhat different from the actual numbers in the year 2000; however, research by world-polity scholars shows that the relative numbers of country's INGO memberships usually undergo only a slight change over a decade or longer. Hence, the data for the year 2008 is a good approximation of INGO memberships for the year 2000.

[11] The search command was composed in the following manner: "Search: Type 1: All NOT Type 2: intergovernmental. Subject: Infant. Members in: Country name."

[12] I started with a list of 81 countries for which I had data on breastfeeding rates for the year 2000. I used this list of countries to collect data for the independent variables, as many of the independent variables had missing values, I ended up with 47 countries which had no missing data.

through G[13] (but not foundations and funds), and those that were explicitly focused on children in their aims. The resulting indicator was logged to correct for skewness.

Participation in the world polity: Following other world-polity scholars, I use several indicators to operationalize countries' participation in the world polity: memberships in INGOs, memberships in IGOs, and number of diplomatic linkages.

I collected the data on INGO memberships from the UIA online database. Starting with the year 2001, UIA Online publishes statistical reports, "Membership of International Organizations, by Country" (Union of International Associations 2001). For each country for the year 2000, this report contains the number of memberships in the international organizations of types A to U. The report also contains total country memberships in international organizations as well as the totals by organization types: A through D, A through F, and A through R. From this, I collected the totals for types A through D. In addition, I calculated the following totals by types: B through D, A through G, A through D plus G. Since these four variables are highly correlated at .99, in my analyses I used only the variable based on totals A through D plus G[14]; it is logged to correct for its skewness.

I used COW database (Correlates of War (COW) 2008), to obtain state IGO memberships as well as diplomatic linkages. This data set contains state data for multiple

[13] UIA has the following classification of types of international organizations: A: Federations of international organizations; B: Universal membership organizations; C: Intercontinental membership organizations; D: Regionally defined membership organizations; E: Organizations emanating from places, persons, proprietary products or other bodies; F: Organizations having a special form, including foundations and funds; G: Internationally-oriented national organizations; H: Inactive or dissolved international organizations; J: Recently reported bodies – not yet confirmed; K: Subsidiary and internal bodies of other internal bodies; N: National organizations; R: Religious orders, fraternities and secular institutes; S: Autonomous conference series (without secretariat): T: Multilateral treaties and agreements; U: Currently inactive non-conventional or unconfirmed bodies"

[14] In practice, organizations of type G (internationally-oriented national organizations) are very similar to B through D organizations; it is not always clear why UIA distinguished them into a separate category.

years, including 2000. For IGO memberships, the data indicate the number of full, associate, and observer memberships (Pevehouse 2004). For my analyses, I used the variable that represents state totals for all three types of membership. COW data on state diplomatic exchange include the "DE" variable, which is "any diplomatic exchange between side 1 and side 2" (Bayer 2006). DE is a dummy variable, coded as "0=neither side was represented in the other side" and "1=at least one side was represented in the other side." For each country, I calculated the number of occurrences of the value "1" to measure the number of diplomatic links for each country. This variable is logged to correct for skewness.

Finally, I produced an index score variable for participation in the world-polity based on factor analysis of the above three variables –INGO memberships, IGO memberships, and diplomatic links (Appendix D).

ICMBS-based legislation. This variable measures whether by the year 2000 a given country had Code-based law and for how long. It is based on my coding of IBFAN reports for the years 1986, 1988, 1989, 1991, 1994, and 1998. The reports show whether, by the report date, each country had in place national legislation or a voluntary measure, based on the full Code or some provisions of the Code. Since only a few countries on my list had Code-based voluntary measures, I created a categorical variable which only considers Code-based law or some provisions law as states' Code-based measures for given periods. The resulting variable had three categories - "0" (Code-based measures in place for more than/equal to zero and less than two years), "1" (Code-based measures in place for more than/equal to two and less than fourteen years), "2" (Code-based measures

in place for more than/equal to fourteen years), based on which three dummy variables were created.

Cultural individualism. Work by world-polity scholars (Frank et al. 1995) demonstrates that states with higher levels of cultural individualism have more expanded professionalized psychology. Therefore, I have operationalized the level of cultural individualism as memberships in psychology INGOs, again using the UIA online database. I searched for INGOs that had "psychology" as their subject[15] for each of the 81 countries, then checked the type of organization, year of founding, and aims/activities. I included in the count of countries' memberships in psychology INGOs only those organizations founded before the year 2000, types A through G (see footnotes 11, 12 and 13), and those that were explicitly focused on psychology in their aims. The resulting indicator was logged to correct for skewness.

An alternative, albeit less precise, measure of cultural individualism is reflection in the prevalence of democratic institutions. As argued by Frank et al. (1995: 365), "[p]olitical systems rooting themselves in individual electoral choice clearly embrace individualistic cultural assumptions." I measure democratic institutions using the Freedom House (2000) ratings of political rights and civil liberties. Freedom House rates rights and liberties on a one-to-seven scale, with one representing the highest degree of freedom and seven the lowest.

Control variables. Public health research (Chatterji and Frick 2005; Lindberg 1996; Roe et al. 1999) indicates that women's employment is associated with decreased breastfeeding, so world-wide changes in infant feeding practices may be associated with

[15] The search command was composed in the following manner: "Search: Type 1: All NOT Type 2: intergovernmental. Subject: Psychology. Members in: Country name"

increased female employment. The measure of female employment, defined as the ratio of women in the labor force to the total labor force, is available from WDI database. A second control variable is geographical region, which accounts for possible cultural and social similarities across regions. The five regions I use are Europe, Asia, the Middle East, sub-Saharan Africa, and Latin America.

Analyses

I used OLS regression with robust standard errors to analyze factors that affect national rates of exclusive breastfeeding of infants (up to 6 months old). OLS regression is an appropriate method for cross-sectional data when the dependent variable is continuous variable. I used robust standard errors to correct for slight departures from normality due to the relatively small sample size. All models in my analyses contain 47 cases. Furthermore, I used a number of standard procedures to ensure robustness of the findings in a small sample (e.g., Boswell and Dixon 1993; Paxton and Kunovich 2003; Scanlan 2001; Wimberley and Bello 1992), testing for heteroscedasticity, multicollinearity, outliers, influential observations, and normality. These tests indicated no significant problems with the regression analyses.

Qualitative Methods

In the qualitative component of my study, I investigated the impact of global factors on individual decision-making regarding infant feeding methods. My research question was whether and how global factors affect individual infant feeding decisions and discourse. Since we know that infant feeding is affected by many micro- and meso-

level social factors, I add the global dimension to explore the conditions under which global factors may be relevant. For this purpose, qualitative methodology was especially appropriate. Although theories of globalization make assumptions about individual-level processes, little is known about the specific mechanisms involved. Qualitative methodology provides excellent tools both to generate new theoretical propositions and to investigate individual meaning-making processes (Flick 1998; Lofland and Lofland 1995).

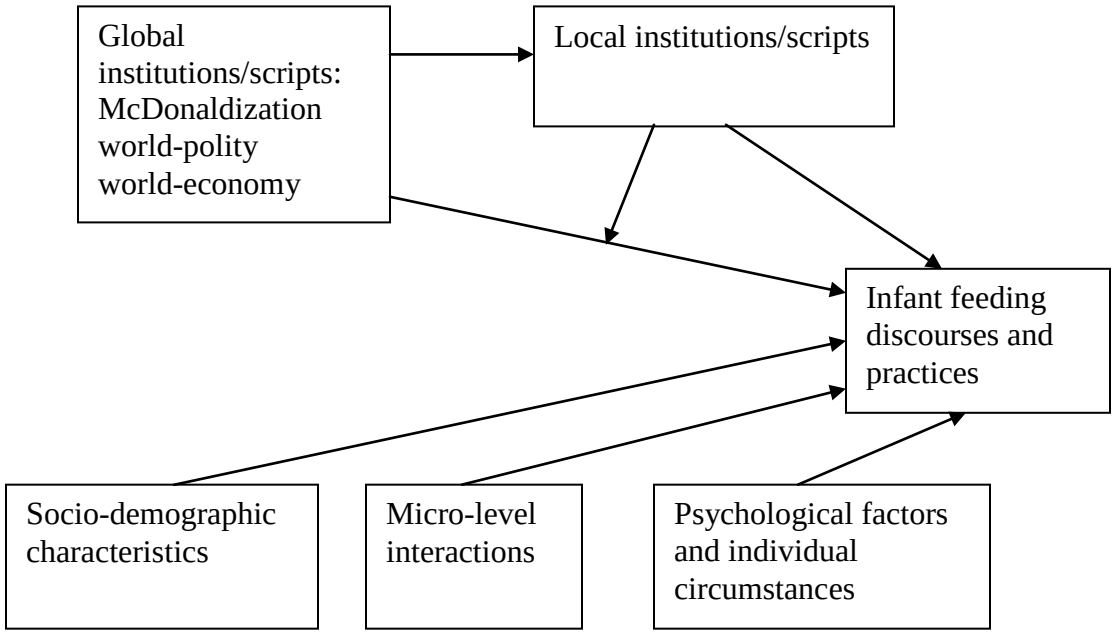
To study individual-level processes, I conducted 60 in-depth semi-structured interviews with mothers of infants (up to 14 months old), half in Kiev, Ukraine, and half in Atlanta. When designing my interview guide (Appendix E), I drew on the conceptual framework outlined below. In addition, I collected considerable contextual information to make sense of my interviews with mothers. First, due to a lack of published research on the matter, I collected background data on infant feeding in Ukraine, conducting ten interviews with pediatricians in Kiev and perusing a variety of Ukrainian parenting magazines, parental advice books, and government documents. I also consulted members of IBFAN-ICDC about the history of the breastfeeding advocacy movement (for details on interviews with Ukrainian pediatricians and IBFAN-ICDC, please consult the section "Contextual and Background Information" on page 81).

Conceptual Framework

My general theoretical model is represented in Figure 2 below. Since my qualitative study was not conceived as completely "emergent" but represented a combination of inductive and deductive approaches, it was appropriate to have a "tighter

design" guided by a conceptual framework based on existing studies (Miles and Huberman 1994).

Figure 3. Factors Affecting Individual Infant-Feeding Decisions and Discourses



As explained in my review of theories of globalization, the key global factors that may affect individual decision-making – rationalization, sacralization of the individual, world-cultural scripts on breastfeeding, commodification, and cultural imperialism and cultural resistance – interact with local cultural institutions and scripts, producing varying outcomes in the US and Ukraine. World-polity and macro-anthropological theories of globalization suggest that two possible mechanisms through which global factors may affect infant feeding decisions are changes in individual beliefs and identities. The public

health literature suggests that infant feeding decisions and practices vary by caretakers' SES, micro-level factors such as the availability of support by family members, and various individual-level variables, such as personal attitudes towards infant feeding as well as psychological and physiological characteristics. I designed the qualitative study both to test the hypotheses provided by the world-polity, world-systems, and world-culture theories, and to generate new hypothesis concerning how micro- and global-level factors interact to affect individual decision-making.

The structure of the interview guide is as follows. First, it has questions on infant feeding practices. In accordance with internationally accepted methodology (WHO 2008), I included questions about specific liquids and foods received by infants within 24 hours prior to the interview. In addition, I asked about the age of the child when she was first introduced to different foods and liquids.

Second, a number of questions on the guide ask what women think about different infant feeding methods (e.g., their advantages and disadvantages) rather than what exactly they do to feed their babies. These questions are designed to provide the data on women's infant feeding beliefs.

Third, the guide specifies questions asking mothers to tell their own stories about the decision-making process – what methods of infant feeding they originally planned to use and why, how they made their decisions, and whether or not they were able to implement those decisions in practice. Through these stories, I sought to gain insight into the relative impacts of global and local factors and their interaction.[16] To further distinguish the global from the local, I also asked about the specific information sources

[16] For specific details of how global and local cultural scripts are captured in my coding of the interviews, see the section on interview analysis.

used by mothers in their decisions-making (e.g., specific books they read, Internet sites they used, etc.). The stories were also potential sources of information about women's personal circumstances (e.g., any important personal events, such as illnesses, or psychological states) that could have an impact on their infant feeding decisions.

Finally, the guide also includes questions about who respondents are "as persons," which provide data relevant for the theoretical concept of identity. Questions about parenting philosophies allowed me to obtain information about aspects of social identity concerning motherhood. Data on micro-level interactions emerged through questions about the roles of other family members (husbands, mothers-in-law, etc.) and friends in mothers' infant feeding decisions. At the end of the interview, I included a small set of items designed to collect information pertinent to respondents' socio-economic status.

Sampling and Recruitment

My decision to conduct interviews in the US and Ukraine was based on both theoretical and practical grounds. For theoretical reasons, it was important to have a multi-country research design in order to be able to separate local from global factors. It was also necessary to select countries with different degrees of rationalization and integration into the world-system and world-polity to account for factors identified by major theories of globalization. The US and Ukraine not only satisfied these criteria, but they were also well suited for my study due to practical reasons. As the country where I was born and raised, the Ukraine offered several natural advantages – I speak the language and I had acquaintances with children who could help me start a snowball sample. On the other hand, having lived in the US for more than nine years, I had an

appropriate degree of both familiarity with and remoteness from both US and Ukrainian cultures. Such in-betweenness, being "neither here no there," is important for qualitative research aimed at uncovering cultural constructions of reality, as it makes it easier to identify and question taken-for-granted cultural assumptions (Lamont 1992). Coincidentally, Atlanta, where I live, and Kiev, my native city, offered excellent research sites, being well matched in terms of population size and intensity of urbanization. I was also acting in accordance with the recommendation of Lofland and Lofland (1995) to "start where you are," capitalizing on my social connections and good knowledge of the social context in both Kiev and Atlanta.

In both Ukraine and the US, I decided to employ snowball sampling, using as initial connections my acquaintances, especially those with small children. This approach was necessary because a random sample of the relevant population could not be identified. The target population was US-born or Ukrainian-born biological mothers (18 years and older) of infants up to one year of age. I limited the target population to biological mothers since I was interested in women's choice of different infant feeding methods (breastfeeding, bottle feeding, and different forms of supplementation) and, with rare exceptions, mothers of adopted children do not have breastfeeding as a viable option. Finally, the requirement that the age of children be limited to one year was due to my concern that mothers of older children may not clearly remember when and how they introduced supplementary foods and liquids. The cut-off point of one year was, however, rather arbitrary and in practice I accepted in the study one mother of an infant of 13 months and two mothers of infants of 14 months (one in Ukraine and one in the US),

since they scheduled their interviews in advance when their children were still 12 months of age.

For theoretical reasons, I was also striving to ensure that my sample varied in terms of socio-economic status. For this purpose, I used several recruitment strategies. As is common with snowball sampling, I planned to recruit my initial subjects through referral from my social contacts (Wright et al. 1992). The pitfall of such a strategy, however, is that it may lead to an overly homogenous sample with participants recommending people from their own social milieu. To avoid this problem, I foresaw several additional starting points for "chain referrals." One possible strategy was finding initial subjects through newspaper or magazine advertisements. Another alternative was to try to recruit mothers in public places, such as neighborhood playgrounds, parks, shopping malls, etc. The advantage of this strategy is that I could target specific neighborhoods to bring in participants with varying SES. To facilitate the recruitment process, I designed various newspaper/magazine advertisements and fliers that provided brief information about my research and the interview process[17].

I started my fieldwork in the fall of 2007, after I secured funding from the Graduate School of Arts and Sciences at Emory that made it possible for me to compensate participants $15 for an interview. This moderate amount was chosen for ethical reasons, as a token of appreciation of participants' time but small enough to avoid attracting women interested solely in extra income.

In September 2007, I traveled to Kiev for ten weeks, during which time I conducted all the Ukrainian interviews. It became possible to do my fieldwork in such

[17] These recruitment materials (Appendix G), along with my study proposal, were approved by the Emory Institutional Review Board (ID# IRB00005539).

relatively short period of time due to the fact that, as someone who grew up in Kiev, I was embedded in many social networks. Also, as I will discuss in my findings chapters, it is common in Kiev for mothers from the same neighborhood to meet each other socially since most people live in apartment houses and mothers meet daily in the parks and playgrounds. The existence of such networks facilitated the chain referral process.

Upon my arrival in Kiev, I contacted at least ten people who I thought could refer me to potential participants. Already within the first week, I was able to schedule the first two interviews. Even though at some point of my fieldwork, I have recruited two participants handing out fliers on a neighborhood playground, the rest of the sample came from chain referral process. I did not have to rely much on alternative recruitment strategies, such as newspaper advertisements, because fortuitously chain referral brought in participants with diverse social backgrounds. Even though my initial interviewees belonged to the middle class, fairly quickly I was referred to mothers who lived in relatively disadvantaged Kiev suburbs, such as Borispol and Bortnichy, where many of my participants with lower SES come from.

The process of recruitment in Atlanta, where I began my fieldwork in January 2008, was remarkably different. Again, I started with my personal contacts. This time, however, I felt it was more difficult and took more time to obtain referrals for interviews. Between January and May 2008, I conducted 16 interviews with mothers in Atlanta, all of them being part of the same referral chain. In May, I had to stop this first wave of interviews, even though I was receiving referrals to many more potential participants. The trouble was that, although this sample had some variation in terms of race, it was

limited to middle- or upper-middle class mothers. I therefore, had to start a new chain, using alternative methods to find initial informants.

I started the second wave of recruitment process in January 2009.[18] First, I tried giving out my fliers in several malls situated in Atlanta's poor neighborhoods. Even though a number of mothers accepted fliers and indicated their interest in the study, they never called back to schedule an interview. I also placed an advertisement in two issues (February and April) of Atlanta Parent Magazine, a free magazine for parents. Although advertisements produced only a small response, this strategy allowed me to locate five initial participants who also further referred me to other mothers. Another fruitful strategy that I used in this second wave of interviews, along with chain referrals, was placing recruitment fliers on information boards in several subsidized daycare centers in Atlanta.[19] Between January and September 2009, I conducted sixteen additional interviews. Ten of these were with mothers of relatively low SES. All in all, I was successful in recruiting a diverse sample, which I describe in the next section.

Sample Description

Table 3 below summarizes sample characteristics for both US and Ukrainian interviews. Since Ukraine is fairly homogenous in terms of race, all Ukrainian interviewees were Caucasian/white. However, 50% of the US participants were women of color. The samples are diverse in terms of SES – both in Ukraine and the US, 33% of informants belonged to low or lower-middle class. In both countries, the mothers I

[18] The second wave of recruitment in Atlanta was funded by the NSF Dissertation Improvement Grant (SES-0824959).

[19] It is common for daycare centers in Atlanta to have a place in the lobby with information resources for parents -- free issues of magazines, such as the *Atlanta Parent* and *Baby Talk*, fliers about fun events in Atlanta, etc. It was thus a perfect place to leave my fliers for interested parents

interviewed varied in employment and marital status. Although most women were married, in Ukraine I interviewed two single mothers (one divorced and one separated) and three mothers who lived together with partners; in the US, four mothers in my sample were single (never married), one was separated, and one was in a relationship but did not live with her partner, while five were not married but lived with partners. The US sample had a somewhat higher number of women who were working full time – twelve as compared to seven in Ukraine. Such disparity is understandable given the fact that in Ukraine women are legally entitled to 18 weeks of paid maternity leave and up to three years of unpaid leave, during which time they are eligible for social security benefits. Finally, mothers' ages varied from 22 to 37 years in the Ukraine and from 19 to 41 in the US, and the ages of their children varied from approximately one month to fourteen months in both samples.

Table 3. Sample Characteristics

Indicator	Ukraine	USA	Indicator	Ukraine	USA
Mothers' age			**Child age (months)**		
Min	22	19	Min	0.5	1
Max	37	41	Max	14	14
Average	28	31	Average	6.7	7.2
SES			**Race**		
Low, or lower-middle	9	10	Caucasian	30	15
Middle or upper-middle	21	20	African-American	0	15
Marital Status			**Employment**		
Legally married	25	19	On leave or not employed	19	14
Living with partner	3	5	Currently working	7	12
Single	2	6	Grad/undergrad students	4	4

In sum, each sample has good variability in terms of mothers' SES, age, and employment status. The US sample also varies in terms of race. The samples are comparable to each other with regard to children's and mothers' age, SES and marital status, even though the US women are slightly more likely to be employed.

Both samples included multiple methods of infant feeding, as shown in Table 4. In Ukraine, 19 out of 30 infants (63%) were introduced to formula, at least episodically. In the US, this number was slightly higher, 22 out of 31[20] infants (71%). All Ukrainian infants and all but one of the US infants were introduced to breastfeeding, at least briefly.

Table 4. Sample Characteristics by Infant Feeding Methods

Indicator	Ukraine					USA				
	<= 6 month old	%	> 6 month old	%	Total	<= 6 month old	%	>6 month old	%	Total
N. of children in age group	10	33	20	67	30	8	27	23	73	31
Ever breastfed					30					30
Ever used formula					19					22
Feeding type (time of interview):										
exclusive breastfeeding	2	20	1	5	3	1	12.5	1	4	2
breast, water	5	50	0	0	5	0	0	0	0	0
breast, formula	1	10	0	0	1	4	50	0	0	4
breast, formula, suppl.	0	0	2	10	2	1	12.5	6	26	7
breast, supplements	0	0	7	35	7	2	25	10	44	12
formula	0	0	0	0	0	0	0	0	0	0
formula, supplements	2	20	9	45	11	0	0	5	22	5
animal milks, supplements	0	0	1	5	1	0	0	1	4	1

The high incidence of ever-breastfed infants in my Ukrainian sample is consistent with the national rate of 95.6% (WHO 2008) but the 97% rate in my US sample is higher than the national rate of 74% (Centers for Disease Control and Prevention 2009). However, this number makes sense given that one third of the women in my sample are

[20] One mother in the US sample had twins; consequently, the number of infants in the US sample was 31 rather than 30.

of the middle or upper-middle class and rates of breastfeeding among women with higher SES have historically been higher in the US, reaching 80% among college graduates in 2002 (Ruowei et al. 2005; Ryan et al. 2002).

At the time of the interview,[21] most women were using various combinations of breastfeeding and supplementary feeding, such as breastfeeding and formula or breastfeeding and food supplements. Of ten Ukrainian infants who were less than six months old at the time of the interview, two (20%) were exclusively breastfed. This figure is comparable with national statistics for Ukraine – in the year 2008, 18% of infants up to six months of age were exclusively breastfed (UNICEF 2010b). In the US, one out of eight (12.5%) infants younger than six months of age was exclusively breastfed, which is again comparable to the national figure of 13.6% (Centers for Disease Control and Prevention 2009). To conclude, the sample has good variability in terms of infant feeding methods used and the data reflect the general patterns of infant feeding in the US and Ukraine.

In-Depth Interviews

The interviews took place in a variety of places chosen by research participants. During our initial phone conversations, I informed the participants about the potentially sensitive nature of the interview topics and encouraged them to select places where they would feel comfortable talking. Hence, I conducted interviews in women's homes, cafes, bookshops, public parks, playgrounds, the Emory Department of Sociology, and food

[21] In accordance with internationally-accepted practice (Labbok 2006; WHO 2008), participants were asked to recall what they fed their infants 24 hours prior to the interview. Even though I also collected information about the age at which mothers first introduced specific foods and liquids, the numbers for feeding types in Table 4 reflect 24-hour recall, which makes the figures comparable to statistical data for the US and Ukraine.

courts at local malls. In most cases, both women and their infants were present at the interviews, so we often spoke while the mothers were involved in their usual daily business – feeding and cuddling their babies, changing diapers, or walking with strollers around the block.

At the start of each interview, I asked participants to review and sign the study consent form, explaining the voluntary nature of participation and outlining the purposes of the research, confidentiality measures, interview procedures, and known risks and benefits (see Consent Form in Appendix F). Although I provided the option of note-taking only, all participants agreed to have our conversations recorded. The interviews ranged from 50 minutes to two hours, with an average length of about 80 minutes. Most participants had little difficulty talking about their infant feeding experiences and parenting in general. The interviews were designed in a non-judgmental way, assigning no value differences to the various methods of infant feeding. Being a mother myself, I have a good grasp of the problems and dilemmas involved in infant feeding and thus was able to keep conversation flowing as I worked through the study questionnaire and probed for emergent topics. At the same time, I was aware of possible power differences and biases brought about by my specific positionality (e.g., Naples 2003; Wolf 1996) as a mother and as a white, US educated woman with Ukrainian cultural background.

At the end of the interview, each participant received $15 supplied by research grants from Emory University and the National Science Foundation (Dissertation Improvement Grant SES-0824959). My impressions of the interviews, containing the descriptions of interview sites and any interesting non-verbal details of our conversations,

were recorded in field notes. Most of the interviews were professionally transcribed with the financial support of an NSF Dissertation Improvement Grant.

Analytic Strategies

I have analyzed the sixty interviews with mothers of infants using the qualitative analysis software package MAXQDA. Because the qualitative portion of my study is designed both to test three theories of globalization – McDonaldization, world-polity, and world-system – and to generate new hypotheses regarding specific mechanisms through which global processes affect infant feeding decisions and practices, I combined inductive and deductive approaches. More specifically, I used qualitative content analysis (deductive) and thematic coding (inductive) as the two major methods of data analysis.

Qualitative content analysis is an appropriate strategy when coding categories are derived a priori from theoretical models rather than 'emerging' from data (Flick 1998). I used qualitative content analysis for two purposes: first, to explore whether global processes affect individual infant feeding discourse and choices; second, to assess the three theories of globalization. While the theories make assumptions about individual-level processes, they rarely are used in micro-level qualitative research. Drawing on my theoretical framework, I generated a "start list" of codes (Miles and Huberman 1994: 58), coupled with operational definitions and examples. For instance, based on McDonaldization theory, I derived the codes described in Table 5 below (the full list of codes is presented in Appendix H). I then searched the text for passages containing the identified codes.

Table 5. Interview Coding Examples

Code	Examples
McDonaldi-zation Discourse draws on the criteria of convenience, efficiency, calculability, predictability, control.	*Efficiency*: "Breastfeeding takes a lot of time. You can do bottle feeding much quicker; the baby becomes full quicker."
	Calculability: "With breastmilk, you do not know whether it has the right amounts of nutrients, whether your baby is getting what she needs. With formula, you know the exact amount of vitamins and other nutrients"
	Predictability: "With breastmilk, you can never be sure of its quality. With formula, you can rest assured that the baby is always getting the same quality product and you know how she will react to it."
	Control: "With formula, I feel more in control of my own life. With formula, other family members can do the feeding, and not only the mother."
	Convenience: "Formula feeding is simply more convenient. You can quickly feed your baby anywhere without being embarrassed or having to spend a lot of time."

In addition, I used the procedure of thematic coding to develop new hypotheses regarding the mechanisms through which global cultural scripts and processes interact with local socio-institutional contexts and individual circumstances to produce infant feeding decisions. This procedure is appropriate for comparative studies in which the groups to be studied are defined a priori based on the research question (Flick 1998). This is a multi-stage process that employs open coding initially for each interview (case) and then makes cross-case comparisons. Hence, this method allows me to compare the Ukrainian and US interviewees, separating the global from the local, individual-level influences.

As I read through the transcripts of the interviews, I not only searched for passages indicating concepts in my theoretically derived codes but also assigned new codes to units of meaning emerging from the transcripts. For example, based on the public health literature I knew that micro-level interactions with family members and friends can affect mothers' infant feeding decisions, so I had "micro-level interactions"

among my initial codes. However, the sub-codes describing the specific impacts of micro-level interactions emerged only in the analyses. I noticed, for instance, that many Ukrainian mothers spoke about pressures from their relatives and friends to introduce supplements early, as is customary in Ukrainian culture. I therefore came up with a new sub-code "Early introduction of supplements: pressures for" (for a full list of codes, including those added during data analysis, see Appendix H). I continued this process of developing new codes until the relevant categories were saturated (Strauss and Corbin 1990).

To make cross-case comparisons, I used the procedures of memoing and constructing displays, such as partially-ordered meta-matrices (Miles and Huberman 1994: 58). After reading through the transcript of each interview, I wrote an analytic memo, using a built-in feature of MAXQDA. Each memo contained key information pertaining to the case – e.g., why a woman chose her specific methods of infant feeding, what factors affected her decision, and important personal circumstances. While reading through the interviews, I also used MAXQDA to construct a case attributes matrix, which links each interview to a set of variables, such as the mother's age, employment status, education, and degree of embeddedness in the local community, along with the child's age, the age of introduction of supplements, the age of introduction of formula, etc. Later on, I exported this attributes matrix to Excel and used it to construct additional data displays facilitating cross-case comparisons. For example, when analyzing factors affecting the decision to introduce formula, I added a new column to my attributes matrix showing the specific reasons for formula introduction based on information from the analytic memos.

In sum, to answer my research questions, I used both inductive and deductive approaches and several analytic techniques. I used MAXQDA software to code the interviews, relying on both a "start list' of codes and a set of new codes that emerged from the transcript analysis. The procedures of memoing and constructing various data displays were used to make further cross-case comparisons.

Contextual and Background Information

In addition to the sixty interviews with mothers, I collected background information to contextualize the qualitative and quantitative findings.

Due to the lack of published research on infant feeding in Ukraine, I conducted 10 interviews with Ukrainian pediatricians in Kiev during my fieldwork in the fall of 2007. The main purpose of these interviews was to identify the official recommendations regarding breastfeeding and formula feeding by Ukrainian medical professionals – how long to breastfeed, when to use formula, at what age to have infants start eating supplementary foods and liquids, whether the professionals adhere to the breastfeeding policies of the Ukrainian Ministry of Health, and whether the professionals know and follow the recommendations on breastfeeding of the World Health Organization.[22] The information gained from these interviews is used in Chapter 5, "Two Cases in Point: Infant Feeding in the USA and Ukraine," which describes the cultural context of infant feeding in the two countries.

Additionally, I collected a variety of literature pertaining to infant feeding in Ukraine: government documents, popular and medical books on infant care and nutrition,

[22] The interviews with Ukrainian pediatricians were based on an interview guide and verbal consent outline approved by the Emory IRB (ID# IRB00005539).

and Ukrainian parenting magazines. For one of these magazines – *Moi Rebionok*[23] -- I acquired most issues for a four-year period (2006-2009); for another magazine -- *Tvoi Malysh*[24] – most issues for a two-year period (2008-2009). For these parenting magazines I conducted a simple content analysis, counting the number of mentions of WHO/UNICEF recommendations on breastfeeding in the three-year period. The results of this analysis are discussed in Chapter 5.

In the fall of 2009, I also made a trip to the International Code Documentation Center of the International Baby Food Action Network in Penang, Malaysia.[25] During this trip I collected data on countries' dates of adoption of the International Code of Marketing of Breastmilk Substitutes as well as additional contextual information on the history and impact of the transnational breastfeeding movement. The latter material is used throughout this dissertation.

[23] The title of this magazine translates in English as "My Child"
[24] "Your Little One" in English translation
[25] The trip was funded by an NSF Dissertation Improvement Grant (SES-0824959).

CHAPTER 4

INFANT FEEDING IN GLOBAL PERSPECTIVE

Despite its seemingly private nature, infant feeding choices are affected by cultural beliefs, institutional practices, such as hospital routines, and national welfare policies (DiGirolamo et al. 2008; Haider et al. 2003; Yovsi 2002). Although existing research has revealed the impact of various social institutions, the question remains whether infant feeding practices can be shaped by the ultimate macro-level factors, those involved in globalization.

There is good reason to suspect that globalization matters for infant feeding. Global corporations market infant formula to the farthest corners of the world, while numerous international non-governmental organizations and activist groups promote breastfeeding. The 1970s witnessed the beginning of worldwide public controversy over the marketing of baby food. Responding to this controversy, the World Health Organization created the International Code of Marketing of Breastmilk Substitutes, and many other international policy initiatives followed. Also, statistical data show that, throughout the twentieth century, infant feeding practices have changed in similar directions all over the world (Labbok 2006; Riordan and Auerbach 1998).

I have argued that globalization affects infant feeding through changes in both social institutions, such as national legislation, and individual preferences. Whereas subsequent chapters will focus on individual infant-feeding decisions and preferences by mothers in the US and Ukraine, this chapter concentrates on large-scale international changes provoked by global cultural, political, and economic processes. Specifically, I analyze the rates of exclusive breastfeeding of infants up to six months of age in forty-seven countries worldwide in the year 2000. I generate hypotheses by drawing on world-

polity, world-system, and McDonaldization theories of globalization, which I review below.

World-system theory predicts that the key global processes having an impact on infant feeding practices are commodification and the penetration of transnational capital. Development of the capitalist world-system involves increasing commodification, subjecting ever more areas of human life to market forces, and increasing commodification is evident in the process of infant feeding. Before the 19th century, infant feeding was largely outside the market (Riordan and Auerbach 1998), but by the 1990s the estimated worldwide sales of infant formula reached $3.9 billion, including $1.2 billion in sales in the Third World (Sethi 1994). Commodification is a spatially expanding process; transnational corporations are constantly searching for new markets for their products and international economic integration is an ongoing process. The greater a country's involvement in the capitalist world-system, the greater is its commodification and thus its predicted use of breastmilk substitutes, making for lower breastfeeding rates.

Hypothesis WS1. The greater a country's integration into the world-economy, the lower its breastfeeding rate.

McDonaldization theory conceptualizes the worldwide mushrooming of commercially produced baby food in terms of the global process through which the principles of efficiency, predictability, and control penetrate ever more institutions and life spheres worldwide. Whereas breastfeeding is an unpredictable and hardly controllable process, infant formula offers greater efficiency (the quickest way to fill a hungry baby), predictability (caretakers know the exact amount and nutritional value of

formula taken by their babies) and control of both caretakers' and infants' bodies (e.g., it is easier for bottle-feeding mothers to be away from their babies). Thus, along with the proliferation of credit cards, processed fast foods, and work-out equipment, commercially produced infant formula fits the Ritzer bill as yet another expression of and vehicle for the McDonaldization of society. Therefore, I hypothesize that greater rationalization/McDonaldization of societies is associated with increased formula use and decreased breastfeeding.

Hypothesis R1. The higher a country's level of rationalization/McDonaldization, the lower its level of breastfeeding.

World-polity theory explains global patterns in infant feeding in terms of cultural and political processes originating in world society. One key process is isomorphic change undergone by nation-states constituted by the same world-cultural scripts – e.g., scientific theories, organizational models, policy regimes produced by various international organizations, and so on. After the 1970s, world-cultural scripts emerged to limit aggressive marketing activities by baby food companies and promote breastfeeding. These scripts, supported by INGOs and key IGOs like the World Health Organization, are the foundation for my general hypothesis that states' involvement in the world polity should have positive effects on national breastfeeding rates. Various mechanisms are at work, such as national governments' adoption of policy initiatives conducive to breastfeeding and increased individual preference for breastfeeding due to educational campaigns by the international organizations involved in breastfeeding advocacy.

Hypothesis WP1. The greater a country's participation in the world polity, the higher its breastfeeding rate.

Since the International Code of Marketing of Breastmilk Substitutes was the first and one of the most strongly supported international policy initiatives, I also hypothesize that state adoption of ICMBS-based measures is an important variable mediating the effects of world-polity integration. Those states that are more integrated into the world polity will be more likely to adopt ICMBS-based national measures, and these measures, it turn, should have positive effects on breastfeeding by limiting bottle feeding.

Hypothesis WP2. The adoption of ICMBS-based legislation has a positive effect on a country's rate of exclusive breastfeeding.

Another mechanism through which integration into world culture might have positive effects on national breastfeeding rates is the sacralization of children. According to world-polity theory, ontological assumptions of world culture define the sacralization of social actors, constituting different categories of persons (e.g., children) as individuals endowed with special needs, wants and rights. When world-cultural scripts promote breastfeeding, greater sacralization of children should be associated with higher breastfeeding rates. Countries may vary by their degree of sacralization of children due to differing degrees of integration into the world polity and variable local circumstances. This reasoning leads to

Hypothesis WP3. The greater a country's sacralization of children, the higher its breastfeeding rate.

Notably, world culture is not monolithic; it is riddled with contradictions. The flip-side of the greater individualism promoted by the sacralization of social actors in world culture is that, under certain conditions, global scripts may encourage mothers to

make infant feeding decisions based on their own needs and preferences rather than those of their children. The hypothesis about the impact of individualism is thus

> *Hypothesis WP4*. The higher the level of cultural individualism, the lower the breastfeeding rate.

Data and Methods

To explore the factors affecting countries' rates of exclusive breastfeeding of infants up to six months old, I constructed a data set for the year 2000 drawing on several publicly available data sources. The resulting sample is 47 nation-states with data available for the year 2000. The details of data collection and variable measurements are discussed in Chapter 3. Below, I provide a brief review of the variables used in the analyses.

DEPENDENT VARIABLE: EXCLUSIVE BREASTFEEDING AT 6 MONTHS. The dependent variable is the percentage of infants who are exclusively breastfed at six months or younger. Rates for the year 2000 are available from several databases – UNICEF (2010b), DOLPHN (2011), and World Development Indicators or WDI (World Bank 2008).

WORLD-ECONOMY INTEGRATION. One of the commonly used measures of countries' integration into the world-economy is the sum of exports and imports of goods and services as a proportion of GDP (Moon 2002). This indicator (logged) is available from WDI (World Bank 2008) or Jacobsen and de Soysa (2006).

RATIONALIZATION/MCDONALDIZATION. I have used several measures of McDonaldization. First, McDonaldization can be measured indirectly by such standard

measures of modernization as urbanization and GDP per capita, both available from WDI. Second, a more direct measure of McDonaldization/rationalization is the prevalence of rationalized information technologies – mobile phone subscribers per 1000 and telephone mainlines per 1000, also from the WDI database. Third, I produced a McDonaldization index score variable based on factor analysis of the above four variables.

RATIONALIZATION/MEDICALIZATION. Medicalization was first conceived as a measure of McDonaldization, but because immunization, as well as other medical programs for children, also reflect programs by national governments and WHO/UNICEF (e.g., Muraskin 1998), I made it a separate variable. The prevalence of immunization is a suitable indicator of societal medicalization. It is available from WDI as the rate of immunization against DTP (diphtheria-tetanus-pertussis) for children ages 12-23 months.

WORLD-POLITY INTEGRATION. Following other world-polity scholars (e.g., Frank et al. 1995, Luo 2000, Moon 2002), I use several indicators to operationalize countries' participation in the world polity: membership in INGOs[26] (Union of International Associations 2001), countries' membership in all IGOs based on COW database (Correlates of War (COW) 2008; Pevehouse 2004), and number of diplomatic linkages that a nation-state has established (Bayer 2006; Correlates of War (COW) 2008). I also produced an index score variable for participation in the world polity based on factor analysis of these three variables.

ICMBS-BASED MEASURES. This variable is based on my coding of IBFAN reports for the years 1986, 1988, 1989, 1991, 1994, and 1998. I created a categorical

[26] Number of INGOs to which residents of each country belong.

variable which indicates whether a country had adopted Code-based legislative measures (law or some provisions law) in given time periods. The three categories are "0" (Code-based measures in place for less than two years), "1" (Code-based measures in place for two to thirteen years), and "2" (Code-based measures in place fourteen years or more). These codes were used to create appropriate dummy variables.

CULTURAL INDIVIDUALISM. Following Frank et al. (1995), I operationalized countries' level of cultural individualism using two measures – democratic institutions and membership in psychology INGOs (number of psychology INGOs to which residents of each country belong). I measure democratic institutions using the Freedom House (2000) ratings of political rights and civil liberties, a one-to-seven scale in which one represents the highest level of freedom and seven the lowest. Memberships in psychology INGOs represent another measure of cultural individualism. To collect these data, I used the UIA online database (Union of International Associations 2001), counting memberships in INGOs that had "psychology" as their subject.[27]

SACRALIZATION OF CHILDREN. Zelizer (1985) shows that the sacralization of children is associated with decreased childhood mortality as well as lower fertility rates. I therefore measured the sacralization of children by three indicators available from WDI – infant mortality rate per 1000 live births, mortality rate of children under five per 1000, and fertility rate, defined as total births per woman. Another measure of the sacralization of children is provided by memberships in INGOs promoting children's rights and well-being (i.e., the number of children's INGOs to which residents of each country belong). I

[27] I included in the counts of memberships in psychology INGOs only those organizations explicitly focused on psychology in their aims, founded before the year 2000, types A through G (but not foundations and funds) within the UIA INGO classification types.

used the UIA Online database to count memberships in all INGOs having the words "child" (and its derivatives) or "infant" (and its derivatives) in their names.[28]

CONTROL VARIABLE. The public health literature (e.g., Chatterji and Frick 2005; Roe et al. 1999) indicates that women's employment is associated with decreased breastfeeding, so worldwide changes in infant feeding practices may be associated with increased female employment. The measure of female employment, defined as the ratio of women in the labor force to the total labor force, is available from WDI.

The variable names, descriptions, and data sources are presented in Appendix A. Descriptive statistics are available in Appendix C.

Results

I use OLS regression with robust standard errors to analyze factors that affect national rates of exclusive breastfeeding of infants (up to 6 months old). The analyses test this basic model:

$$\text{Rate of exclusive breastfeeding} = b_0 + b_1(\text{economic integration}) + b_2(\text{medicalization}) + b_3(\text{McDonaldization}) + b_4(\text{world-polity integration}) + b_5(\text{ICMBS legislation}) + b_6(\text{individualism}) + b_7(\text{child sacralization}) + b_8(\text{control variable}) + e$$

To test this model, I use several estimation equations that employ alternative measurements of variables as well as different combinations of independent variables to avoid problems with multicollinearity.

[28] I included in the counts of memberships in children-oriented INGOs only those organizations founded before the year 2000, types A through G (but not foundations and funds), that were explicitly focused on children in their aims.

Regression results are presented in Table 6 (page 106). The results in the first column (Model 1) represent the full model, which includes key variables of theoretical interest: world-economy integration, medicalization, McDonaldization, and integration into the world polity – as well as all other variables that could be included without creating excessive multicollinearity. The index variables for McDonaldization and for integration into the world polity were created to eliminate excessive multicollinearity, as several indicators of McDonaldization and world-society integration are highly intercorrelated (Appendix B). Similar index measures are routinely used by world-polity researchers (e.g., Frank et al. 1995; Luo 2000; Moon 2002). However, the impacts of the individual variables that make up the indexes are also of theoretical interest, so Models 2 through 5 test the four McDonaldization variables and Models 6 through 8 test the three variables indicating world-polity integration. Models 9 and 10 test alternative measures of individualism - the Freedom House ratings and the memberships in psychology INGOs. Since psychology INGO memberships are highly correlated with the world-polity index (.81), the latter variable could not be included in Model 10. Models 11-14 test alternative measures of sacralization of children. One of these measures (participation in children-oriented INGOs) could not be put in the same equation with the world-polity index because of their high correlation (.89); other measures based on fertility and child mortality appear in the same equations with the world-polity index, but the rationalization index is absent because it correlates highly (.79 and .77) with these measures. Finally, Model 15 includes only the variables of greatest theoretical interest - world-economy integration, medicalization, and index variables of the McDonaldization of societies and of integration into the world polity.

The results of the regressions in Model 1 support my three major hypotheses. States' integration in the world economy has a negative effect on the rate of exclusive breastfeeding, significant at the .01 level. Approximately, a 1% increase in a country's level of economic integration yields a 0.1% decrease in the rate of exclusive breastfeeding, holding other factors constant. Likewise, degree of McDonaldization has a strong negative effect on the rate of exclusive breastfeeding ($p<0.01$, one-tailed). Holding all other factors constant, one standard deviation increase in the degree of rationalization yields a decrease of about 11 points in the percentage of exclusively breastfed infants. In contrast, integration in the world polity has a positive effect on the rate of exclusive breastfeeding ($p<0.05$, one-tailed); one standard deviation increase in the degree of world-polity integration leads to a rate approximately 4 points higher in the percentage of exclusively breastfed infants. Finally, the results partially support the hypothesis that the adoption of ICMBS-based legislation has positive effects on the rate of exclusive breastfeeding. Model 1 finds that an ICMBS-based law in existence for more than 14 years has a positive statistically significant effect ($p< 0.05$, two-tailed test) on breastfeeding rates. Countries that have had ICMBS-based legislation for more than 14 years have average rates approximately 15 percentage points higher than countries with no ICMBS-based legislation or ICMBS-based legislation younger than two years. However, the middle category -- national ICMBS-based legislation in existence for at least 2 but less than 14 years -- has no statistically significant effect. This pattern could be due to the time lag between countries' adoption and implementation of the law and the law's subsequent effect on exclusive breastfeeding rates.

The results in Model 1 do not support my hypothesis that greater individualism has a negative impact on exclusive breastfeeding; the coefficient for the Freedom House rating of civil liberties is not statistically significant. A plausible explanation for this finding, gleaned from my interviews with mothers of infants, is that cultural scripts of individualism are less salient in parents' decision-making than other world-cultural scripts about motherhood and infant feeding.

Thus, of the thirty women I interviewed in Ukraine, no mother referred to her own rights and needs when explaining her choice of bottle feeding. The cultural scripts of individualism were also not pronounced in the infant feeding discourse of US mothers, despite the high level of cultural individualism in the US. Even though some US women mentioned that their "own" needs might be better served by using formula, they labeled this attitude "selfish" and tried to avoid it. Below is an example of how it was expressed by one of the US mothers.

> I don't know, I guess if I'm really honest, I feel like a lot of women choose not to breastfeed because they think it's not convenient, and I think that that's a really selfish attitude to take that it's easier for me to do it this way. So I'm gonna do what's not best for my baby just because it's easier for me. I just don't think that's the right attitude. I mean, you know, I don't necessarily believe in completely sacrificing yourself to a fault for your child, but at the same time, if you are capable of making a decision, if you are capable of breastfeeding, for whatever period of time, then I think it's kind of selfish not to, I guess. (Alex)

In fact, in the US of the ideology of "intensive mothering" is prevalent – mothering is constructed as exclusive, time-consuming, self-sacrificing, and child-centered (Arendell 2000; Hays 1996). Supported by existing socio-cultural institutions, such as the gender-based division of labor, this ideology persists despite the fact that cultural individualism encroaches on family life (Bellah et al. 1985) and various

"deviancy" discourses which depart from the ideals of child-centered motherhood are frequently invoked (Arendell 2000). Given that, even in such a stronghold of individualism as the US, cultural scripts of individualism do not necessarily prevail in relation to mothering discourse and practices, the same might be happening at the global level. While increasing sacralization of individuals is inherent in globalization (Boli and Thomas 1999b), its impact on infant feeding decisions and discourse may be held in check by other factors, such as the growing power and legitimacy of world-cultural scripts promoting breastfeeding. My interviews with mothers showed that those women who were exposed to world-cultural scripts about the advantages of breastfeeding and exclusive breastfeeding were reluctant to use formula even if they believed that it might better serve their personal needs.

My control variable, female labor force participation, likewise did not have a statistically significant effect. This variable was included because a number of studies show that mothers' employment is associated with decreased likelihood of breastfeeding (e.g., Chatterji and Frick 2005; Lindberg 1996; Roe et al. 1999). However, in contrast to a variable measuring the percentage of employed mothers, the percentage of women in the labor force may capture different, and contradictory, effects. Whereas, on the one hand, a higher percentage of women in the labor force may be associated with a higher percentage of employed mothers of infants, and thus with a lower likelihood of exclusive breastfeeding, on the other hand, a higher percentage of women in the labor force may also be associated with higher levels of female education and income, which usually have a positive effect on breastfeeding rates (Riordan and Auerbach 1998).

Last, the regression produced surprising findings for a second rationalization variable – medicalization. Contrary to expectations, medicalization has a positive, rather than negative, effect ($p<0.01$, two-tailed). Note that medicalization serves as a suppressor variable affecting the bivariate relationship between the McDonaldization index and the rate of exclusive breastfeeding, which is negatively biased by omitting the medicalization variable since the bivariate correlation coefficient between the McDonaldization index and exclusive breastfeeding is negative ($r = -.13$). In general, omitting a relevant variable from a regression equation results in a negative bias in one of the following cases: the omitted variable and an independent variable in the regression equation are strongly positively correlated but one of them is negatively correlated with a dependent variable, or the omitted variable and an independent variable are strongly negatively correlated but one of them is positively correlated with the dependent variable (Gujarati 1995; Rosenberg 1973). In this case, medicalization and McDonaldization are highly positively correlated ($r = .59$) but, in contrast to McDonaldization, medicalization is positively correlated with exclusive breastfeeding ($r = .28$). Thus, to adequately capture the effects of rationalization both McDonaldization and medicalization variables must be present in the equation; these are two inseparable parts of the same process. It is thus of significant theoretical interest that these two components of rationalization have such different effects on exclusive breastfeeding. Medicalization means that mothers increasingly rely on medical advice and procedures (such as C-sections or immunizations) as they offer more predictability and control, which closely associates medicalization with McDonaldization.

However, several things must be noted. First, contemporary medical advice, under the impact of world-culture, actively promotes exclusive breastfeeding. It would be plausible to hypothesize that before the 1970s, when breastfeeding emerged as an issue on the international agenda, greater medicalization was associated with lower breastfeeding rates. Due to the fact that pediatricians become increasingly pro-breastfeeding, though, increased medicalization now has a positive impact on exclusive breastfeeding. Second, increased medicalization also reflects the impact of world culture – many medical programs for children, including immunizations, are promoted by various INGOs and IGOs, such as the World Health Organization and UNICEF, and become adopted as national policies (e.g., Muraskin 1998). Therefore, the increased use of modern methods of contraception, hospital delivery, or immunization of children may reflect not only the increased rationalization of societies but also the operation of government programs and regulations adopted under pressure from world-societal forces. In other words, the medicalization of societies, to some degree, also reflects the impact of world culture via the activities of WHO, UNICEF, and various health-oriented INGOs. Taking into account that world culture strongly legitimates exclusive breastfeeding, it may be hypothesized that greater medicalization also reflects greater overall impact of WHO/UNICEF and greater exposure to the international programs promoting exclusive breastfeeding.

The findings discussed so far largely hold up in the other models in Table 6 (pages 106 and 107). The variables for world-economy integration, medicalization, McDonaldization, and ICMBS legislation for 14 years or longer maintain their significance and approximate magnitude throughout Models 2 through 15. Countries'

level of individualism, as measured by civil liberties, as well as the percentage of women in the labor force are not significant in any of these models. While the world-polity integration index retains statistical significance at the 0.05 level in Models 3, 9, 13, and 15, it is not significant in Models 2, 4, 5, 11, and 12, and its magnitude changes from 2.91 in Model 11 to 5.31 in Model 15. These results can be explained by the presence of an intervening variable – ICMBS legislation for 14 or more years – that mediates the impact of world-culture. According to my theoretical causal model (Figure 2 on page 58 in Chapter 3), countries that are more highly integrated into the world polity are more likely to adopt ICMBS-based legislation, which thereby boosts their rates of exclusive breastfeeding. This intervening variable is present in all equations except but Model 15, which represents a reduced form containing only exogenous variables. The reduced-form equation omitting intervening variables reveals the total effect (both direct and via the intervening variables) of exogenous variables of interest (Alwin and Hauser 1975). As expected, the coefficient for the world-polity index in the reduced-form Model 15 is significant and has its largest magnitude, at 5.31. To further test the hypothesis that ICMBS legislation for 14 or more years is the intervening variable mediating the impact of world-polity integration, I ran Models 1-5, 9, 11, 12, and 13 omitting this variable (see Table 7, page 108). As expected, in all these equations the world-polity index variable is significant and its magnitude never falls below 4.43.

Models 2 to 5 in Table 6 test the components of the McDonaldization index. All of them have statistically significant negative effects on exclusive breastfeeding, with logged telephone mainlines and logged GDP per capita being significant at $p<0.01$ level and logged mobile phone subscribers and urban population being significant at the

$p<0.05$ level. For example, a 1% increase in telephone mainlines per 1000 people yields a decrease of approximately 0.08% in the rate of exclusive breastfeeding.

Among the components of the world-polity integration index tested by Models 6 to 8, only countries' diplomatic links are statistically significant at the 0.05 level; IGO memberships are significant at the 0.1 level but INGO memberships are not statistically significant. Here, a 1% increase in a country's diplomatic links yields a 0.06% increase in its rate of exclusive breastfeeding. These results resonate well with the above conclusion that countries' adoption of ICMBS-based legislation is one of the primary mechanisms of world-polity impact. A reasonable assumption is that diplomatic links as well as membership in such IGOs as WHO are key factors that increase the likelihood of adoption of ICMBS-based legislation.

The measures of individualism tested by Models 9 and 10 – political rights and membership in psychology INGOs – do not have statistically significant effects. These findings corroborate the finding in Model 1 of no association between the level of cultural individualism and the breastfeeding rate. Once again, it appears that the impact of cultural individualism on infant feeding decisions and practices is held in check by such factors as the growing power and legitimacy of world-cultural scripts promoting breastfeeding.

Finally, Models 11 through 14 test the measures of the sacralization of children. Only the fertility rate is statistically significant ($p<0.01$) and its coefficient is positive, contrary to my prediction. I hypothesized that higher fertility would be associated with less sacralization of children and thus lower rates of exclusive breastfeeding, but the opposite is true. This might be explained as follows: while fertility is only a weak

indicator of the sacralization of children, it has a direct effect on breastfeeding – public health research finds higher breastfeeding rates for second or later children, since with every subsequent child a mother improves her breastfeeding skills (Al-Sahab et al. 2010; Dewey et al. 2003). Moreover, there is another direct link between exclusive breastfeeding and fertility. Breastfeeding is considered to be a natural method of birth spacing and fertility control (the lactational amenorrhea method, or LAM), but only if it is exclusive and frequent (Palmer 1988). Breastfeeding-advocacy INGOs, such as WABA, often include information about LAM in their educational materials and programs as a cheap method of birth spacing, particularly for women in the least developed countries. In fact, "lactational amenorrhea is still the primary factor responsible for birth spacing in sub-Saharan Africa, where the use of modern contraception is limited by lack of access and by ideological concerns in traditionally pronatalistic societies" (Simondon et al. 2003). Perhaps not coincidentally, the countries with high fertility (five or more births per woman) and relatively high rates of exclusive breastfeeding are found in sub-Saharan Africa – e.g., Malawi, Burundi, Ethiopia, Rwanda, or Guinea-Bissau. It may be that countries with high fertility rates have greater incentives to implement national programs supporting exclusive breastfeeding, while breastfeeding is also likely to be supported by traditional cultural assumptions.

As to non-findings for other measures of sacralization of children, they may be due to the limitations of my data. Sacralization is a cultural construct that is not easily captured by quantitative data, and it may have context-specific manifestations in different societies. Hence, my measures may not adequately capture the sacralization of children in a comparative cross-national perspective. In sum, the findings in Models 1-15 support

hypotheses WS1 and WP1 and partly support hypotheses R1 and WP2. Hypotheses WP3 and WP4 are not supported.

Robustness Checks

I assessed the robustness of these findings using additional alternative measures, estimation methods, and post-regression diagnostics. For the full Model 1, I checked for heteroscedasticity using both the Cook-Weisberg and White tests, and neither showed statistically significant problems (p=0.37 for Cook-Weisberg and p=0.27 for White), so I cannot reject the null hypothesis of constant variance. As noted above, to avoid the problem of multicollinearity I created index variables and ran separate models for variables that had bivariate correlations greater than 0.7. I also checked for multicollinearity using post-regression diagnostic procedures. The matrix of correlations between estimated regression coefficients did not show any correlations higher than 0.6; also, the variance inflation factor did not exceed 2.38 for any of the coefficients. This allows me to conclude that multicollinearity does not appear to be a significant concern.

To test for normality of residuals I performed the Shapiro-Wilk W test. With a rather large p-value of 0.25, this test indicated that I cannot reject an assumption that the residuals for Model 1 are approximately normally distributed, further affirming the meaningfulness of the results. To test for influential observations, I first examined the scatterplots of exclusive breastfeeding against each of the predictor variables. They revealed that the data points for Rwanda and Syria were outliers, so I examined the studentized residuals for the Model 1 regression and noticed that two residuals exceeded a cut-off point for influential observations - Syria (3.81) and Mongolia (2.07). However,

examination of leverage showed that none of the observations exceeded a cut-off point beyond which an observation might be considered as unduly influential.[29]

Finally, I checked two additional statistics, measuring how much a given observation influences the regression model as a whole: Cook's D and DFFITS (Hamiton 2003). Three observations exceed the cut-off points for influential observations on both statistics – Syria, Rwanda, and Mongolia, with Syria having the largest value. Hence, I recalculated Model 1 omitting these three observations, both together and one at a time. The results of these regressions are largely comparable to the original Model 1, with all of the coefficients retaining their significance and sign. The magnitude of the coefficients, however, undergoes some change. Except for the case when Rwanda is deleted, the coefficients for world-economy integration and the McDonaldization index decrease modestly, while the coefficients for the world-polity integration index and ICMBS-based legislation for 14 or more years increase in both magnitude and level of significance (Table 8, Part I on page 109). When Rwanda is deleted, the coefficients for world-economy integration and world-polity integration increase in magnitude but the coefficient for ICMBS-based legislation for 14 or more years decreases modestly.

In sum, the post-regression diagnostic procedures allow me to conclude that despite its relatively small size, the sample approximately approaches the normal distribution and the findings are robust. In addition, I have recalculated Model 1 using a transformed dependent variable. As noted before, the original dependent variable (rate of exclusive breastfeeding) has a somewhat skewed distribution (0.86). However, both a square root transformation and a Box-Cox transformation produce a dependent variable with a skewness close to 0 (Appendix C). The regression results for these transformed

[29] For a regression with 47 cases and 8 predictors, the cut-off point for leverage is (2*k +2)/47= 0.383

dependent variables are shown in Table 8, Part II (page 110). The table shows that the models with transformed dependent variables do not change substantively: regression coefficients keep their signs and levels of significance. Also, standardizing the coefficients in the three models suggests that the magnitude of effects is approximately the same in the models with the original and transformed dependent variables. In addition, I calculated a model with bootstrapped standard errors. Bootstrapping is a nonparametric method of statistical inference which is often recommended for small samples or samples for which the shape of the distribution is unknown or non-normal. Instead of making assumptions about the sampling distribution, this method enables estimation of a statistic's sampling distribution by constructing a large number of resamples of the observed dataset (Mooney 1996). The bootstrapping approach produced standard errors somewhat larger than in the original OLS model but the regression coefficients maintained their significance. The index of world polity integration declined in significance to the 0.1 level (one-tailed test) while the other coefficients maintained their levels of significance. Finally, I introduced additional control variables – regions of the world – to rule out spatial autocorrelation. Again, this model produced comparable results, with all key coefficients keeping their signs, approximate magnitude, and level of significance.

Discussion and Conclusions

My analyses of global factors affecting rates of exclusive breastfeeding of infants up to 6 months of age produces results consistent with several sociological theories of globalization. As predicted by world-system theory, countries' integration into the world-economy has a negative impact on breastfeeding rates. One of the key mechanisms

suggested by world-system theory to explain this impact is that of increased commodification. The development of the capitalist world-system subjects ever more areas of human life to market forces. Infant feeding was once outside the market, but it increasingly is commodified by means of manufactured baby foods and infant formula. The theory also suggests that transnational corporations play an active role in this process, promoting baby food to consumers and meddling with governments' attempts to implement policies against the aggressive marketing of infant formula. The more that countries become integrated into the world-economy, the higher the degree of commodification in general and of infant feeding in particular that they experience. In turn, the more that mothers turn to commercially produced baby foods, the lower the chances that they engage in exclusive breastfeeding.

Apart from reducing breastfeeding rates through sprawling sales of breastmilk substitutes, the expansion of global bureaucratic corporations epitomized by McDonald's has the cultural impact of increasing individual preferences for efficiency, predictability, and control. These new individual preferences favor bottle feeding rather than breastfeeding because it offers more efficiency, predictability, and control. Therefore, I predicted that the greater rationalization/McDonaldization entails less exclusive breastfeeding, and this hypothesis is partially supported by my analyses. Apart from medicalization, rationalization/McDonaldization variables have a negative impact on exclusive breastfeeding. Medicalization involves a more complex causal situation; it is an integral part of rationalization/McDonaldization but it also reflects the efforts of IGOs and INGOs to promote breastfeeding. Given the increasing advocacy for breastfeeding

with the medical profession since the 1970s, greater medicalization is associated with higher rates of exclusive breastfeeding.

Finally, the results support the two key hypotheses of world-polity theory. As predicted, greater integration into the world polity is associated with higher rates of exclusive breastfeeding. According to theory, multiple mechanisms could be at play. After the 1970s, many international or global policy initiatives emerged to promote breastfeeding and exclusive breastfeeding. Those countries that are more integrated into the world polity are more likely to adopt such international policy frameworks as the Baby-Friendly Hospital Initiative, the Innocenti Declaration, and the ICMBS. Also, in countries that are more integrated into the world polity, individual caretakers are more likely to prefer breastfeeding due to greater exposure to educational efforts by various IGOs and breastfeeding-advocacy INGOs. Due to the limitations of my data, I cannot directly test the impact of these mechanisms, except for countries' adoption of the ICMBS. For this mechanism, the results support my hypothesis: countries' adoption of the ICMBS mediates the impact of world-polity integration. My analyses also partially support the hypothesis that adoption of the ICMBS has a positive impact on breastfeeding rates. This relationship holds for countries that have had ICMBS-based measures in place for 14 or more years, though not for countries with measures in place for shorter periods. This finding is likely due to the length of time required for the formal adoption of legislation to have substantial practical effects.

My analyses do not support the other two world-polity hypotheses, that cultural individualism should have a negative impact and the sacralization of children a positive impact on the rate of exclusive breastfeeding. I have suggested that the impact of cultural

individualism may be counteracted by the growing influence of world-cultural scripts promoting breastfeeding. A more complex situation obtains regarding the sacralization of children. Fertility, an inverse (albeit weak) measure of the sacralization of children, has a positive effect, rather than the predicted negative effect. However, fertility is probably directly related to breastfeeding. In less developed countries with high fertility rates, exclusive breastfeeding may be more actively promoted as a cost-free and natural method of birth spacing. In addition, public health research finds higher breastfeeding rates in second and later children as mothers improve their breastfeeding skills, so countries in which women have many children are more likely to have higher breastfeeding rates.

In the coming chapters I expand on these analyses, examining how the processes outlined above impact infant feeding decisions and practices by individual caretakers.

Table 6. OLS Regression with Robust Standard Errors: Analyses of National Rates of Exclusive Breastfeeding

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
World-system:								
World-economy integration (ln)	-10.456**	-11.004**	-9.038**	-12.179**	-13.720***	-11.191**	-10.674**	-11.718***
Rationalization:								
Medicalization	0.573***	0.438***	0.680***	0.501***	0.425***	0.555***	0.582***	0.644***
McDonaldization								
Index of McDonaldization variables	-11.328***					-10.788***	-11.758***	-10.798***
Mobile phone subscribers per 1000 (ln)		-3.766**						
Telephone mainlines per 1000 (ln)			-7.818***					
GDP per capita (ln)				-7.995***				
Urban population					-0.276**			
World-polity:								
World-polity integration								
Index of integration variables	4.421**	4.006	4.115**	3.275	2.915			
Country INGO memberships (ln)						4.535		
Country diplomatic links (ln)							5.584**	
Country IGO memberships								0.253*
Country adoption of ICMBS-based law:								
Law for 2 to 13 years	1.402	2.772	1.208	2.620	1.939	2.150	0.716	2.821
Law for 14 or more years	15.207**	15.488**	13.194**	16.488***	15.765**	15.870***	14.994**	15.831***
Individualism								
Civil liberties	1.174	1.758	1.750	1.606	3.302	1.509	-0.379	1.337
Political rights								
Membership in psychology INGOs (ln)								
Sacralization of children								
Infant mortality rate								
Children under 5 mortality rate								
Fertility rate								
Memberships in children's INGOs (ln)								
Controls								
Female labor force participation	0.294	0.689	0.221	0.318	0.522	0.247	0.239	0.407
Constant	9.763	12.228	21.401	70.003**	26.323	-12.971	-2.842	-10.730
F	7.297***	6.243***	7.375***	8.223***	8.622***	6.668***	7.183***	7.492***
Adjusted R2	0.390	0.303	0.401	0.357	0.329	0.381	0.393	0.388

Note: *** p<0.01, ** p<0.05, * p<0.1 (one-tailed for directional hypotheses noted above; otherwise two-tailed test); N=47 in all models.

Table 6. *(Continued)*

	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
World-system:							
World-economy integration (ln)	-10.444**	-13.897***	-13.354***	-12.850***	-10.086***	-11.366***	-12.655***
Rationalization:							
Medicalization	0.577***	0.588***	0.444***	0.487***	0.757***	0.576***	0.612***
McDonaldization							
Index of McDonaldization variables	-11.689***	-10.041***				-10.617***	-11.995***
Mobile phone subscribers per 1000 (ln)							
Telephone mainlines per 1000 (ln)							
GDP per capita (ln)							
Urban population							
World-polity:							
World-polity integration							
Index of integration variables	4.531**		2.910	3.009	4.320**		5.308**
Country INGO memberships (ln)							
Country diplomatic links (ln)							
Country IGO memberships							
Country adoption of ICMBS-based law:							
Law for 2 to 13 years	1.664	3.580	3.483	3.681	5.309	1.659	
Law for 14 or more years	15.196**	17.218***	15.692**	15.992**	16.015***	14.282**	
Individualism							
Civil liberties		1.027	3.293	3.203	1.732	1.304	
Political rights	0.774						
Membership in psychology INGOs (ln)		-0.351					
Sacralization of children							
Infant mortality rate			0.082				
Children under 5 mortality rate				0.068			
Fertility rate					8.067***		
Memberships in children's INGOs (ln)						5.107	
Controls							
Female labor force participation	0.294	0.165	0.636	0.603	0.461	0.211	
Constant	11.117	28.521	2.067	-3.048	-48.035*	1.785	36.950*
F	7.229***	6.240***	5.838***	6.370***	11.681***	6.367***	9.178***
Adjusted R2	0.390	0.369	0.273	0.286	0.457	0.387	0.366

Note: *** p<0.01, ** p<0.05, * p<0.1 (one-tailed for directional hypotheses noted above; otherwise two-tailed test); N=47 in all models.

Table 7. OLS Regression with Robust Standard Errors: Analyses of National Rates of Exclusive Breastfeeding, Reduced Form

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 9	Model 11	Model 12	Model 13
World-system:									
World-economy integration (ln)	-12.43***	-12.92**	-10.38***	-14.42***	-15.78***	-12.39***	-15.31***	-14.93***	-12.15***
Rationalization:									
Medicalization	0.60***	0.47***	0.73***	0.53***	0.45***	0.60***	0.48***	0.52***	0.79***
McDonaldization									
Index of McDonaldization variables	-11.31***					-11.47***			
Mobile phone subscribers per 1000 (ln)		-3.90**							
Telephone mainlines per 1000 (ln)			-8.36***						
GDP per capita (ln)				-7.57***					
Urban population					-0.27**				
World-polity:									
World-polity integration									
Index of integration variables	5.89**	5.65*	5.54**	4.84*	4.43**	5.99**	4.69*	4.67*	6.08***
Individualism									
Civil liberties	0.61	1.09	1.14	1.07	2.71		2.62	2.56	1.04
Political rights						0.46			
Sacralization of children									
Infant mortality rate							0.09		
Children under 5 mortality rate								0.07	
Fertility rate									8.14***
Controls									
Female labor force participation	0.16	0.53	0.08	0.17	0.38	0.16	0.46	0.42	0.25
Constant	27.64	31.76	37.14*	87.48***	44.98*	27.92	21.14	17.94	-25.79
N	47	47	47	47	47	47	47	47	47
F	6.49***	3.98***	6.36***	6.38***	4.32***	6.63***	4.20***	4.57***	11.59***
Adjusted R2	0.34	0.26	0.37	0.30	0.27	0.34	0.23	0.24	0.40

Note: *** p<0.01, ** p<0.05, * p<0.1 (one-tailed for directional hypotheses noted above; otherwise two-tailed test)

Table 8. Alternative Measures and Models (Part I)

	Syria deleted	Rwanda deleted	Mongolia deleted	Syria, Rwanda, and Mongolia deleted
World-system:				
World-economy integration (ln)	-10.013**	-12.565***	-7.384*	-8.395**
	(0.0588)	(0.0133)	(0.13)	(0.0876)
Rationalization:				
Medicalization	.525***	.533***	.491***	.404***
	(0.0008)	(0.0004)	(0.0008)	(0.0017)
McDonaldization index	-11.737***	-10.553***	-10.562***	-10.259***
	(0.0011)	(0.0021)	(0.0013)	(0.001)
World-polity:				
Index of integration variables	4.055**	5.342**	4.748**	5.174***
	(0.0801)	(0.0333)	(0.0451)	(0.013)
National ICMBS-based law:				
Law for 2-13 years	7.144	-5.365	1.383	1.494
	(0.3447)	(0.5775)	(0.8871)	(0.832)
Law for 14 or more years	20.128***	13.353**	16.016**	19.43***
	(0.0004)	(0.0682)	(0.0234)	(0.0006)
Individualism				
Civil liberties	-0.676	1.828	0.690	-0.645
	(0.6741)	(0.4153)	(0.7636)	(0.6418)
Controls:				
Female labor force participation	0.610	0.231	0.142	0.390
	(0.0846)	(0.6055)	(0.7377)	(0.2558)
Constant	3.593	21.846	10.203	14.081
	(0.8668)	(0.3955)	(0.6597)	(0.4845)
N	46	46	46	44
F	6.0725847	8.5004229	8.5586846	7.8775414
Adjusted R2	0.49218854	0.43688617	0.34268643	0.50847566

Note: p-values appear in the parentheses;
*** p<0.01, ** p<0.05, * p<0.1 (one-tailed for directional hypotheses noted above;
. otherwise two-tailed test)

Table 8. Alternative Measures and Models (Part II)

	Exclusive breastfeeding: original variable			Exclusive breastfeeding: square root transformation		Exclusive breastfeeding: Box-Cox transformation		Boot-strapped standard errors		Control-ling for regions
	b	β	p	b	β	b	β	b	p	b
World-system:										
World-economy integration (ln)	-10.456**	-0.255	(0.035)	-0.735**	-0.191	-0.884*	0.171	-10.456**	(0.059)	-9.284**
Rationalization:										
Medicalization	0.573***	0.606	(0.000)	0.051***	0.578	0.068***	0.566	0.573***	(0.000)	0.669***
McDonaldization index	-11.328***	-0.503	(0.001)	-1.049***	-0.496	-1.378***	0.485	-11.328***	(0.002)	-10.081***
World-polity:										
Index of integration variables	4.421**	0.193	(0.078)	0.422**	0.196	0.562**	0.194	4.421*	(0.158)	6.304**
National ICMBS-based law:										
Law for 2-13 years	1.402	0.025	(0.883)	0.281	0.053	0.411	0.058	1.402	(0.892)	-1.165
Law for 14 or more years	15.207**	0.306	(0.025)	1.736***	0.372	2.405***	0.384	15.207**	(0.028)	13.382**
Individualism										
Civil liberties	1.174	0.07	(0.607)	0.118	0.075	0.173	0.082	1.174	(0.636)	0.243
Controls										
Female labor force participation	0.294	0.108	(0.496)	0.030	0.117	0.041	0.12	0.294	(0.549)	0.850*
Europe										-18.985
Asia										-2.594
Sub-Saharan Africa										5.291
Middle East & North Africa										14.956
Constant	9.763		(0.692)	2.115		1.754		9.763	(0.757)	-2.093
N	47			47		47		47		47
F	7.297***			8.388***		8.240***				8.080***
Adjusted R2	0.390			0.381		0.368		0.390		0.458

Note : β=standardized coefficient; b=unstandardized coefficient.

*** p<0.01, ** p<0.05, * p<0.1 (one-tailed for directional hypotheses noted above; otherwise two-tailed test)

CHAPTER 5

TWO CASES IN POINT: INFANT FEEDING IN USA AND UKRAINE

In previous chapter, I have considered how global cultural, economic, and social factors impact infant feeding in forty-seven countries worldwide. My findings show that states' greater degree of rationalization/McDonaldization as well as integration into the world-economy have negative impacts on their rates of exclusive breastfeeding of infants up to six months of age. In contrast, countries' integration into the world-polity is positively associated with rates of exclusive breastfeeding. Nevertheless, these findings leave many questions unanswered.

The anthropological perspective on globalization stresses that when global factors penetrate national territories, they do not enter a cultural vacuum but interact with local socio-cultural institutions (e.g., Hannerz 1992). Public health and sociological literatures add that infant feeding is socially constructed and varies by cultural and national context (e.g., Wright et al. 1993; Yovsi 2002). The quantitative findings ignore this cultural complexity and do not answer the question of how global factors interact with local traditions of infant feeding. Why do global factors matter despite local complexity? What impact do the local factors have? Finally, and most importantly, infant feeding decisions rest with individual parents, but the quantitative analyses do not allow us to understand how both local and global factors impact parental decision-making. Therefore, I now turn to these questions.

The goal of the present chapter is to describe the Ukrainian and the US cultural contexts of infant feeding. As I have argued above, the emergence of world-cultural scripts promoting breastfeeding is a relatively recent phenomenon, beginning in the late

1970s. I will therefore discuss, first, the culturally specific models of infant feeding which historically prevailed in Ukraine and the US. I will also outline the routes through which world-cultural scripts on infant feeding have entered both countries and what macro-level changes they could have incurred.

The Ukrainian Context

Traditional Model of Infant Feeding

Based on the interviews with Ukrainian pediatriacians and my review of the Soviet and Ukrainian infant feeding literature, I conclude that from its Soviet past Ukraine inherited a model of infant feeding somewhat distinct from that of Europe and the US. While breastfeeding has been on the rise in the US since the 1970s, the proportion of hospital-born infants who received any breastmilk was only 60% in 1995 (Ryan 1997; WHO 2008). In the UK this percentage was comparable, with 66% of infants ever breastfed (WHO 2008). In contrast, the proportion of babies who were ever breastfed in Ukraine in 1995 was close to 92% (Kiev International Institute of Sociology et al. 2001). Several sources note that in the USSR breastfeeding was encouraged (Agnew et al. 1997), and immediately after the break-down of the Soviet Union, breastfeeding was still the norm in the Ukraine (Kiev International Institute of Sociology et al. 2001). At the same time, breastfeeding was not exclusive. The model of infant feeding that Ukraine has inherited from the Soviet Union might be called breastfeeding with early introduction of supplements. This practice of early introduction of complementary foods and liquids had both medical and popular/folk roots.

Soviet pediatric literature distinguished between correctional supplementation and nutritional supplementation of breastfeeding (Maidannyk and Burlai 2004; Voronzov and Mazurin 1980). The goal of nutritional supplementation was to supply growing babies with additional calories; such supplements were usually introduced at four to five months of age in the form of pureed vegetables and cereals mixed with milk. Correctional supplementation, on the other hand, was mainly intended to satisfy the need for vitamins and minerals that may be insufficient in breastmilk. For example, fresh fruit juices were introduced as early as three to four weeks to supply additional vitamins and minerals, clear vegetable broths were offered starting at one month to correct for mineral difficiencies and prevent rickets, and boiled egg yolks were routinely given starting at two to three months of age to correct for protein deficiency (interviews with pediatricians). In addition, Soviet pediatricians recommended introducing water immediately after birth (Stenkova 2007). Finally, Soviet pediatric literature recommended that breastfed children be weaned by one year of age (e.g. Bisiarina 1981).

In sum, both the the Soviet pediatric literature and my interviews with pediatricians in Kiev show that, while the medical system was supportive of breastfeeding, it called for early introduction of various supplementary foods and liquids and for complete weaning by one year. My interviews with pediatricians indicate that these recommendations did not change much over the years and continued after Ukraine gained its independence in 1991. As will be discussed below, changes in these recommendations gradually started to occur after 1996 when the Ukrainian government adopted its first Programme of Breastfeeding Support.

Perhaps the dietary model of breastfeeding outlined above is partially responsible for the fact that in 1999, while 93% of infants had ever received breastmilk, only 31% were exclusively breastfed at four months of age (Kiev International Institute of Sociology et al. 2001). However, a number of additional economic and cultural factors were also at work.

First, a number of breastmilk substitutes were readily available both in the USSR and in the newly independent Ukraine. While international brands of commercially prepared infant formula were not sold in the USSR, a state-sponsored system of milk kitchens distributed locally prepared breastmilk substitutes free of charge with a medical prescription (Agnew et al. 1997). Breastmilk substitutes prepared at these milk kitchens were mostly so-called 'non-adapted' formulas based on unprocessed cows' milk, keeping the milk's protein structure intact (Voronzov and Mazurin 1980). In addition to milk kitchens, there were several industrially produced semi-adapted formula products based on modified cows' milk to approximate breastmilk protein structure; these adapted formula products (e.g., "Maliutka," "Malysh," "Detolakt," "Vitolakt") were manufactured in the USSR and sold in grocery stores. Finally, in the USSR it was not uncommon for mothers to prepare home-made breastmilk substitutes by diluting cow, goat or other animal milk. This practice has deep historical roots (Riordan and Auerbach 1998), but in the USSR as elsewhere it was systematized and rationalized by the medical profession and fed back to the population in the form of practical recommendations about how to prepare breastmilk substitutes correctly at home. For example, *The Book of Infant Feeding* issued in the USSR in 1964 has instructions on how to mix different amounts of

whole animal milk, cream, water and sugar to prepare breastmilk substitutes for infants of different ages (Speranskiy 1964).

Very similar instructions can be found in a contemporary Ukrainian child care book by Natalia Stenkova (2007) under the heading of “non-adapted infant feeding.” There the author explains that, although she is not a supporter of non-adapted home-prepared formulas, she gives instructions about how to prepare them because this practice still exists in Ukraine. Thus, numerous alternatives to breastmilk were available in Soviet Ukraine. My interviews with Ukrainian pediatricians as well as available literature (e.g., Agnew et al. 1997) suggest that, although breastfeeding was a norm in the USSR and most women at least attempted breastfeeding, they were also quick to start supplementing with breastmilk substitutes due to a variety of factors, such as hospital practices interfering with adequate initial lactation, women’s beliefs in the insufficiency of their milk supply, early return to paid employment after childbirth, or belief in the adequacy of breastmilk substitutes.

To summarize, in Soviet Ukraine the common practice for mothers was to attempt breastfeeding but also to start early supplementation with water, various breastmilk substitutes (formula, animal milks), juices, vegetable broths and other foods (e.g., cereals, egg yolks, and soft cheese). The persistence of such practices can be explained by medical recommendations and practices widespread in the USSR, socio-economic conditions and cultural beliefs. It must be noted, however, that this model of breastfeeding with early supplementation also has historical roots. Various anthropological and historical studies show that even before the emergence of commercially produced breastmilk substitutes, breastfeeding was rarely exclusive; early

supplementation with various foods and liquids was rather common (Riordan and Auerbach 1998; Yovsi 2002). This "folk" model of infant feeding has long existed and still exists in rural Ukraine, according to my interviews with pediatricians and mothers in Kiev. It is common for women in Ukrainian villages to breastfeed their babies while introducing them early on to table foods typical of the countryside, such as porridge (kasha) and vegetable soups. As noted by one pediatrician:

> I used to work in a hospital belonging to the railway and there were a lot of children from villages… So I can say that then they did a lot of breastfeeding there [in the villages]. They had those old women [*babushka*] who very much insisted on breastfeeding and only breastfeeding, but very early they would switch to supplementing with common foods – not formulas, or rice-corn cereals with living cultures, not NAN[30] formula with probiotics– but just soup [*borsch*] and porridge.

According to my informants, prepared infant formula has probably not been used widely in rural Ukraine because it was not readily available in village stores in Soviet times and it is financially out of reach for many villagers at present. The usual solution is to feed babies with diluted animal milk and to make a quick transition to available table foods:

> In the countryside, as far as I know, they supplement with milk, porridge, cows' milk because that's the mentality that they have; and again [the influence of] the elder women, grandmothers [*babushkas*] who take care of children. But the grandmothers raise children according to their own norms… Yes, they start supplementing with cows' milk because when we went there [to the country-side] she [her daughter] was four months old, and already at this age they suggested supplementing with cows' milk because, as far as I can see, they do not really see the difference between cows' milk and breastmilk. Milk and milk. (Inna, mother of 3 children.)[31]

In other words, this model of infant feeding - breastfeeding with early supplementation - has not only medical but also folk roots. In the USSR, both medical recommendations and popular traditions, albeit for different reasons, favored this model. The infant feeding

[30] NAN is a formula brand by Nestle widely sold in the Ukrainian market.
[31] Please note that, throughout this dissertation, I use fictional names for all my study participants (as well as their children) in order to protect their privacy.

statistics cited above show that this model was still characteristic of independent Ukraine in 1999.

Introduction of World-Cultural Scripts

Soviet Ukraine was not completely shut off from world-cultural scripts about infant feeding, but their presence was very limited as compared to the onslaught of world-cultural scripts after 1991. As noted above, transnational corporations producing infant formula and baby food were not allowed into the USSR (Agnew et al. 1997). The international medical literature as well as popular baby care books could reach Soviet readership only after having passed through the bureaucratic machine of the Soviet state. With the rare exceptions of the brief period of the New Economic Policy in the 1920s and Perestroika in the late 1980s, all legal publishing was done by the state and any literature to be published was subject to approval and rigorous censorship by Party organs (Blium 2003; Ermolaev 1997; Goriaeva 2002). Some carefully selected international medical literature did reach Soviet pediatricians. For example, a very influential pediatric reference book on infant feeding by Vorontsov and Mazurin (*Spravochink po Detskoi Dietetike)* published in the 1980s refers to the recommendations of the World Health Organization and to some foreign medical literature. As for popular baby care literature, one of the rare books that did penetrate Soviet Ukraine was Spock's *Baby and Child Care*, first translated into Russian in 1970; Spock's opposition to the Vietnam War helped justify its publication (Kelly 2001). My interviews with Ukrainian pediatricians indicate that this edition of Spock was very well known, much sought after, and hard to find. In general, in response to my question about what baby care advice literature was

available to readers in Soviet Ukraine, Spock was the only author mentioned. The pediatricians generally agreed that there was not much parental advice literature; pediatricians and experienced parents and grandparents were the major source of advice for new parents. Here is how one of the pediatricians, Valentina Ivanovna, a doctor with more than twenty years of experience, responded:

> I think that there was not much [baby care] literature available for the mass reader; that is, there was a TV program called 'Health' [*Zdorovje*], where there was some information from time to time. All the literature was exclusively for students in medical schools and medical nurses, but with Ukrainian independence much more varied literature for parents appeared. Well, before that maybe somebody was able to buy Spock, but it was a rarity in fact, of course parents chased after it, it was one of the best works available, even abroad, that one could learn from. Besides that, there wasn't [baby care literature], it did not have a mass character. Moms learned new information only through their doctor and nurse and also got some information from their parents, there was this type of generational transfer [of knowledge]. (Valentina Ivanovna)

This situation changed significantly after the breakdown of the Soviet Union. First, international brands of infant formula and baby food products became widely available in Ukrainian stores and their advertisements were splashed all over the Ukrainian media. Contemporary Ukrainian baby care books, such as those by Natalia Stenkova (2007) and Maidannyk and Burlai (2004), discuss infant formula products available for purchase in Ukrainian stores, among them products from the following transnational corporations: Netherlands-based Friesland Nutrition (e.g., Frisolac) and Nutricia (Nutrilon), U.S.-based Heinz, Mead Johnson (Enfamil), Wyeth (SMA) and Abbott (Similac), the German HiPP (HiPP-1) and Humana (Humana-1), the Swiss Nestle (NAN), the French Danone (Gallia-1), the Finnish Chymos (Bona) and Valio (Tutelli), and the Swedish Semper Baby. Upon entering Ukraine, these companies actively

marketed their products through various promotional campaigns and media advertisements.

I have analyzed five issues from 2007 of a Ukrainian magazine for parents of children under three years of age, *Tvoi Malysh* (*Your Little One*). I counted the number of advertising spots for baby food products for infants from birth to one year. The five issues contained 83 advertisements for infant feeding products – infant formula, baby cereals, jarred pureed foods (meats, fruits, and vegetables), herbal teas, bottled water, and juice. In total, 14 different brands were advertised, both international and Ukrainian. Among the most active advertisers were HiPP (27 spots), Nestle (17), Nutricia (15), Ukrainian Detolakt (7), and Humana (5), with other brands having one or two spots each. Despite the fact that the International Code of Marketing of Breastmilk Substitutes and subsequent WHA resolutions prohibit advertising in the mass media of any infant food products (including cereals, pureed foods, juice and bottled water) for babies under six months (IBFAN 2007a), 53 advertising spots in the five issues had products for babies under six months. Most of these advertisements were for jarred baby foods (starting at four months), baby teas (from birth), bottled water (from birth), juice (four months), and instant cereals (four months). Thus, whereas in the Soviet Union the advertising of baby foods was practically non-existent, many baby foods (including for babies under six months) are advertised rather aggressively in contemporary Ukraine.

The second route through which world-cultural scripts on infant feeding enter Ukraine is through literature for parents. As noted above, just a handful of publications for parents existed in Soviet Ukraine, but after independence this void quickly began to fill. As noted by pediatrician Valentina Ivanovna, cited above:

> … now there are lots of magazines for parents, which are well and accessibly written; there are many books. And the moms are interested in them. They buy them, they read them… (Valentina Ivanovna)

Presently, there are at least four magazines designed for parents of young children (under six years of age) published in Ukraine: *Moi Rebenok* (founded in 2001), *Tvoi Malysh* (2003), *Khoroshie Roditeli* (2005), and *Mama I Ja* (2007)[32]. There are also several more inclusive magazines for parents of children from birth to the teenage years, such as *Mir Sem'i* (founded in 1999). In addition, parenting magazines published in Russia are also available for purchase in Kiev. Based on my reading of these magazines, they freely draw on various foreign information sources (e.g., scientific research, recommendations by the WHO, etc.). For example, in the forty issues of *Moi Rebenok* that appeared between 2006 and 2009 that I have analyzed, the reference to WHO/UNICEF appeared 40 times in the total of 22 issues (55%)[33]. Moreover, my interviews with pediatricians and mothers suggest that these magazines have both significant readerships and considerable influence. For example, all of the thirty women I interviewed in Kiev regularly read at least one of the magazines listed above.

Parental advice books are also widely available. For example, in one of the bookstores in downtown Kiev I counted more than a hundred titles of books on pregnancy, birth, lactation, baby care, and child development. This literature included books by Ukrainian, Russian and foreign authors. Likewise, in 2008, a Ukrainian Internet bookshop, SaGo, listed 46 "books for moms," among them 16 books by foreign authors

[32] In English translation: *Moi Rebenok – My Child*, *Tvoi Malysh – Your Little One*, *Khoroshie Roditeli – Good Parents*, and *Mama I Ja – Mother and I*.

[33] For this content-analysis, I used all issues of *Moi Rebenok* that I was able to find for this time-period: 9 issues in 2009, 10 in 2008, 9 in 2007, and 12 in 2006. In this analysis, I was counting any mentions of WHO/UNICEF, but in fact 34 out of these 40 references were in relation to WHO/UNICEF recommendations on infant feeding.

translated into Russian, including such international bestsellers as *What to Expect* by Eisenberg et al. (2002) and books by William and Martha Sears (e.g., 2003). My Kiev mothers actively read parental advice books. Among the most often cited books by foreign authors were Masaru Ibuka's *Kindergarten is Too Late* (1980), Glenn and Janet Doman's *How to Teach Your Baby to Read* and *How to Teach Your Baby Math* (2005a; 2005b), and books by Dr. Spock, William and Martha Sears, and Eisenberg et al., as well as literature on Montessori and Waldorf methods of handling early childhood development.

Sources of parental advice are not limited to the print media; increasingly, parents turn to the Internet. Whereas there were only 22,000 Internet users in Ukraine in 1995, their number reached 4,560,000 in 2005 (World Bank 2008). More than half of the women interviewed used the Internet to find information on baby care and infant feeding. In turn, many Russian and Ukrainian Internet sites for parents[34] contain international sources of information on infant feeding (e.g., translated articles, recommendations by the World Health Organization, information about the International Code of Marketing of Breastmilk Substitutes, etc.).

Finally, world-cultural scripts on infant feeding enter Ukraine through political and medical routes. As discussed above, Ukrainian pediatricians inherited the Soviet medical model of infant feeding that calls for the introduction of water from birth, correctional supplementations starting at two weeks, and nutritional supplementation as early as four months of age. However, marked changes in this medical model started emerging beginning in 1995. The impetus for changes appeared as early as 1991, when the Ukrainian Parliament ratified the UN Convention on the Rights of the Child (CRC).

[34] For example, http://www.rojdenie.org, www.teddyclub.com.ua, www.akev.ru

Article 24 of the Convention states specifically that States Parties shall "ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents" (United Nations 1989). Moreover, the implementation of CRC is monitored by a UN-linked Committee on the Rights of the Child, which reviews the state of children's rights in the countries that ratified the Convention. Importantly, the state of breastfeeding is an integral part of this review process. As of 2011, CRC Committee reviewed Ukraine four times, making specific recommendations on infant feeding (IBFAN 2011).

Thus, ratification of CRC laid the foundation for the development of further state programs supporting breastfeeding. Eight out of the ten pediatricians I interviewed recalled that in the 1990s the state program to support breastfeeding was personally sponsored by Ukrainian President Leonid Kuchma and his wife Ludmila Kuchma, who was connected to UNICEF through her public charity work and in 1996 became an Honorary President of the National Fund of Social Protection of Mothers and Children, "Ukraine for Children." In January, 1996, Decree 63/96 by President Kuchma launched the National Program, "The Children of Ukraine" (Kuchma 1996). This program was conceived in conjunction with implementation of the UN Convention on the Rights of the Child, and the Program's preface specifically says that its goal is "coordination of actions in fulfillment of the UN Convention on the Rights of the Child" (Kuchma 1996). The program was broad in scope, being directed at the development of Ukrainian children's rights and well-being, and it had a section specifically dedicated to breastfeeding.

To support breastfeeding in Ukraine, the program outlined three measures: (1) develop a program of breastfeeding support, (2) facilitate the fulfillment of the UNICEF/WHO Baby-Friendly Hospital Initiative, and (3) create three regional centers of lactation support. Thus, the National Program "The Children of Ukraine" served as an impetus for the development of regional breastfeeding support programs to be implemented in 1996-1999. Also, in fulfillment of the National Program, in May, 1996, the Ministry of Health issued Decree 4, "About the organization and support of medical care for newborns in Ukraine." Among other things, this Decree outlines a number of measures implementing the WHO/UNICEF Baby-Friendly Hospital Initiative and the "Ten Steps to Successful Breastfeeding" (Ministry of Health of Ukraine 1996).

In sum, a number of state efforts to support breastfeeding had begun by 1996. These efforts were later renewed and continued into the 2000s. Thus, Decree 50 of September 3, 2000, launched the National Program of Breastfeeding Support for the years 2000-05. The major goals of this program were to continue implementing the measures started in the 1990s while establishing additional lactation centers and introducing into Ukrainian medical institutions "modern principles of lactation support and breastfeeding of infants, the WHO/UNICEF Baby-Friendly Hospital Initiative" (Ministry of Health of Ukraine 2000). This Program was again renewed for the years 2006-2010 by Decree 429/49 of July 31, 2006 (Ministry of Health of Ukraine 2006a). Also in 2006, the Ministry of Health issued Decree 540 specifying the criteria and procedures for certifying hospitals as "Baby Friendly" according to the WHO/UNICEF Baby-Friendly Hospital Initiative (Ministry of Health of Ukraine 2006b). Two marked results of these state-level programs and initiatives were changes in medical

recommendations in relation to infant feeding as well as changes in infant feeding practices within hospital maternity wards.

After 1996 the Ukrainian medical profession gradually embraced the model promoted by WHO, which called for breastfeeding with no supplementary foods or liquids until six months of age. This change was noted by all ten pediatricians whom I interviewed in Kiev. In the words of one of them: "Just two or three years ago the new decrees were issued, which call for later introduction of supplementary foods, so that the child is breastfed as long as possible and supplementation is introduced no earlier than 6 or 6.5 months of age" (Elena, pediatrician in Kiev). Most of the pediatricians recalled that these changes occurred in connection with the state program of breastfeeding support and the "Ten Steps to Successful Breastfeeding." For example, another pediatrician answered the following to my question about whether the new recommendations on infant feeding were developed by the Ministry of Health:

> Yes. Well, the Ten Steps were already under Leonid Kuchma – the Ten Steps of Successful Breastfeeding – but these are based on WHO. They [the Ministry of Health] simply took them as a basis and developed their Program, which closely follows the recommendations of the World Health Organization. So, they did not invent anything new, they did everything according to the recommendations of WHO. (Valentina Ivanovna,)

The second major effect of the state programs was changes in infant feeding practices in hospital maternity wards. Hospital practices widespread in the USSR – mother-infant separation, infant swaddling, feeding on schedule, feeding with glucose water, etc. – were inimical to the establishment of adequate lactation. The programs introduced in 1996 resulted in gradual changes in hospital practices. For example, all thirty of the mothers I interviewed in Kiev said that in the hospital maternity ward they had the option to stay in the same room with their babies. Moreover, a growing number of hospitals throughout

Ukraine have been certified “Baby Friendly.” In 2001 only four hospital maternity wards were certified “Baby Friendly,” but during the years 2002-2004, 34 more hospitals received such certification (Teddy Club 2008), whereas by the year 2009 the total of 220 Ukrainian hospitals was certified “Baby Friendly” (UNICEF 2010a).

In sum, after the breakdown of the Soviet Union, Ukraine was exposed to various world-cultural scripts on infant feeding -- via advertising by numerous baby food producers, advice literature, Internet sites and magazines for parents, and the activities of international organizations like WHO and UNICEF.

The US Context

Historical Models of Infant Feeding

In contrast to Ukraine, where breastfeeding was a norm throughout the twentieth century, in the US formula feeding was dominant between the 1950s and 1970s. Already by early 1900s, US physicians, and most notably Thomas Rotch, developed a complex system of modifying cow’s milk so that it could be more safely fed to human babies. Under this system, cows’ milk was diluted with such ingredients as lime-water and sugar syrup according to a special individually-prescribed formula. It could be prepared, under medical guidelines, by mothers at home or in specialized milk laboratories, which by 1907 had mushroomed throughout the country (Apple 1987). Whereas these early modified milks were based on individualized prescriptions and were hard to use, they were gradually replaced by commercially produced generic formulas. Apple (1987) identified several factors that contributed to the rising popularity of manufactured formulas in mid-twentieth century US. First, infant mortality in the late 19th and early 20th

centuries was largely due to infant malnutrition. Growing urbanization and accompanying factors resulted in many women abandoning breastfeeding and turning to unsafe animal milks as substitutes (Wolf 2001). Hence, infant feeding became an important part of pediatric practice. In this early period, doctors believed that, overall, breastfeeding was superior to formula feeding, but only if the mother was healthy and nutritional and corrective supplementation was practiced – e.g., it was recommended that breastfed infants receive daily doses of orange and tomato juice in order to prevent scurvy (Apple 1987). Over time, as formula feeding became safer and simpler, physicians started viewing formula as on a par with or even better than breastmilk due to individual mothers' unpredictable breastmilk supply and vitamin content (ibid). This view, along with the growing promotion of infant formula by manufacturers and increasing medicalization of motherhood in the US, whereby women increasingly sought physician advice about childrearing, made formula the dominant infant feeding method by the 1950s – "In the United States from the late nineteenth century to the twentieth century, changing ideology, developments in medical practice, and ongoing scientific research all played a part in the medicalization and commercialization of infant feeding and the redefinition of women's maternal role" (Apple 1987: 169).

In sum, by the 1950s infant feeding with commercially prepared formulas became not only socially acceptable but by far the most prevalent method in the US. Data gathered by Ross Laboratories as well as the National Surveys of Family Growth show that in the years 1955-1959 only about 32% of US infants were ever breastfed (Ryan et al. 1991). Moreover, the surveys show further decline in the incidence of breastfeeding in the US between 1955 and the early 1970s, so that the rate of ever breastfed infants in the

year 1972 was as low as 22% (ibid). However, this trend reversed in the early 1970s and breastfeeding rose until 1982, when the rate reached about 62% (Ryan 1997). Even though this increase was followed by some decline in the years 1983-1989, since the 1990s the rate of ever breastfed infants has again been steadily rising, reaching 70% in the year 2001 (Ryan et al. 2002) and 73.9% in 2006 (Centers for Disease Control and Prevention 2009).

Despite this overall increase in US breastfeeding rates, it must be noted that infant feeding practices vary substantially across socio-cultural groups in the US. Blum (1999) argued that from the early 20th century onward, breastfeeding emerged as a means of exercising social control over mothers. In the age of industrialization, urbanization and immigration, with the breakdown of traditional community and fear of anomie, the mothers' body became a locus of debate about the women's proper place in society, their sexuality and social position. Blum asserts that white elites as well as rising middle classes, ever fearful of poor immigrants and African-Americans, have constructed the white breastfeeding home-making mother in opposition to the promiscuous poor working mother feeding her baby with formula. Thus, even at the zenith of formula-feeding in the mid-twentieth century US, breastfeeding was considerably more widespread among the white upper and middle classes than other social groups. Recent research confirms this pattern. For example, for the years 1999-2006, the proportion of ever breastfed infants was highest among non-Hispanic, high income whites (76%) as compared to non-Hispanic low income whites (55%) and non-Hispanic blacks, whether high income (58%) or low income (37%) (McDowell et al. 2008). However, Mexican-American high- and low-income families also have high rates of 74% (ibid.). For the overall US population,

Mexican-American and non-Hispanic white children are more likely to be breastfed than non-Hispanic black children; for children born in 2005-2006, the rates of ever breastfed infants among Mexican-Americans, Caucasians, and African-Americans were 80%, 79%, and 65%, respectively (ibid). In addition, public health research demonstrates that in the US infant feeding practices differ by women's age, education, and marital status, with older, more educated, married women being more likely to breastfeed (Li et al. 2005).

Even though breastfeeding rates in the US have experienced considerable growth over the past forty years – from 30% of ever breastfed infants in 1955 to approximately 74% in 2006 (Centers for Disease Control and Prevention 2009; Ryan et al. 1991) – they remain relatively low compared to other countries. For example, in the year 2006 the rate of ever breastfed infants in Azerbaijan was 85.2%, (ICF Macro 2010), 90.3% in Canada, and 93.2% in Austria (WHO 2008). In the year 2007, the rate of ever breastfed infants in Ukraine was 95.6% (WHO 2008). Similarly, the rates of exclusive breastfeeding in the US are still relatively low – e.g., in the year 2006, the rate of exclusive breastfeeding at 6 months in the US was 13.6% (Centers for Disease Control and Prevention 2009) as compared to 40% in Brazil or 18% in Ukraine in 2007 (UNICEF 2010b).

The Impact of World-Cultural Scripts

In contrast to Ukraine, which until the 1990s was closed off from world-cultural scripts, the US was an open country at the center of production of many world-cultural scripts and models. Thus, many of the international best-selling parental advice books discussed above, such as those by Dr Spock, the Sears, and Eisenberg et al, were written by American authors. Similarly, commercially produced baby foods and their

advertisements were present in the US throughout the twentieth century, and many US producers of formula (e.g., Heinz, Mead Johnson, Wyeth, and Abbott) achieved global reach. Nevertheless, in congruence with world-polity theory (e.g., Boli and Thomas 1999a), many world-cultural scripts on infant feeding are not produced by the core countries such as the US. Some of the most significant world-cultural models on infant feeding, namely those promoting breastfeeding and especially exclusive breastfeeding worldwide, are developed by international NGOs and IGOs. In turn, these models have been entering the US, especially via the route of national breastfeeding policies.

Before the 1980s there were few efforts to promote breastfeeding at the national level. One of the few federal programs that concerned infant feeding was the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) initiated at the federal level in 1972. Seeking to improve the nutrition of low-income women, infants and children up to 5 years old (Oliveira et al. 2002), this program was found to be associated with decreased breastfeeding rates among its participants, who were entitled to receive free infant formula (e.g., Li et al. 2005; Ryan 1997; Ryan et al. 2002; Ryan and Zhou 2006). For example, Ryan (1997) found that in 1995 the rate of breastfeeding initiation in the hospital among WIC participants was 46.6%, as compared to 71.0% among those not participating in WIC.

Although US national breastfeeding policies began crystallizing in the 1980s, their development can be traced back to changes occurring throughout the 1970s. As noted above, the 1970s ushered in the grassroots breastfeeding movement in response to the international controversy over aggressive marketing of infant formula. Lobbying by US NGOs involved in the controversy resulted in Congressional hearings on infant

formula led by Senator Edward Kennedy. One of the significant consequences of these hearings was that Senator Kennedy urged the World Health Organization (WHO) to adopt the issue because of its international scope. Even though in 1981 the US failed to vote in favor of the Code of Marketing of Breastmilk Substitutes, which was subsequently developed by WHO, these events focused policymakers' attention on the issue of infant feeding and as such can be considered precursors of US breastfeeding policies.

Also important was the Thirtieth World Health Assembly in 1977, which developed the new goal of *Health for All by the Year 2000* (Pan American Health Organization 1996). This goal shifted the focus from curing to preventing disease and promoting health. The ensuing Declaration of Alma-Ata adopted at a WHO conference in 1978 similarly called on all governments to protect and promote health, explicitly supporting the *Health for All by the Year 2000* goals. The US was a signatory of *Health for All* and the US Surgeon General developed in 1979 a report, *Healthy People,* which became the basis for US national policy on disease prevention (DHHS 1984; Healthy People 2010b). Pregnancy and infant health was one of the fifteen priority areas identified by the *Healthy People* report. In 1980, the broad objectives set forth by the Surgeon General's report were specified and quantified in another health policy document – *Objectives for the Nation* – developed by the US Department of Health and Human Services (DHHS 1980). For breastfeeding, the goal for 1990 was increasing the proportion of women breastfeeding their babies to 75% at hospital discharge and to 35% at 6 months of age. In pursuit of these goals, in 1984 the US Surgeon General conducted

a Workshop on Breastfeeding & Human Lactation, which further focused policymakers' attention on the topic of breastfeeding.

In 1990 the *Healthy People* goals were renewed for the year 2000. Breastfeeding goals for 1990 had been only partially met: the rate of breastfeeding women was 62% at hospital discharge and 37% at 6 months of age as compared to the goals of 75% and 35% (National Center for Health Statistics 2001). *Healthy People 2000* set targets of 75% at hospital discharge and 50% at 6 months (Healthy People 2010a; National Center for Health Statistics 2001). The same breastfeeding targets appeared in *Healthy People 2010*, since by 1998 "only 64% of all mothers breastfed in the early postpartum period and only 29% breastfed at 6 months postpartum" (DHHS 2000: 8), still below the targets. It was not until 2006 that the rate of breastfeeding at early postpartum approached the targeted 75%, but breastfeeding at 6 months was still below the goal at 43.4% (Centers for Disease Control and Prevention 2009). In addition, *Healthy People 2010* included three new targets for the proportion of mothers who breastfeed their babies – 25% at 12 months, 40% exclusively through 3 months, and 17% exclusively through 6 months (ibid). The goals for *Healthy People 2020* have yet to be determined; that document is in preparation.

Another set of developments impinging on US breastfeeding policies can be traced back to the international policy initiatives of the 1990s. Although, in the 1980s, the US failed to sign two international documents that have implications for breastfeeding – the International Code of Marketing of Breastmilk Substitutes (ICMBS. or the Code) and the UN Convention on the Rights of a Child – the following decade brought changes in the US policy position. In 1990, the US signed the Innocenti Declaration, which calls on

all governments to adopt ICMBS, issue effective maternity legislation, establish national breastfeeding committees, and promote exclusive breastfeeding up to 4-6 months of age. Also, in 1994 the US signed World Health Assembly resolution 47.5, endorsing ICMBS and the relevant WHA resolutions to that date (NABA 2010). In the years 1996 and 2001, the US signed two additional WHA resolutions, numbers 49.15 and 54.2, which confirm countries' commitment to the Code (ibid).

Although the US still has not adopted Code-based national legislative measures, other important developments occurred. First, in connection with *Healthy People 2000* but also related to the new emphasis on exclusive breastfeeding promoted by WHA resolutions, the American Academy of Pediatrics issued in 1997 its policy statement "Breastfeeding and the Use of Human Milk." This policy explicitly states that human milk is the best and preferred method of infant feeding, stresses exclusive breastfeeding of infants up to 6 months of age, and delineates hospital practices that support the establishment of successful breastfeeding (American Academy of Pediatrics 1997). Among these practices are starting breastfeeding immediately after birth, feeding on demand rather than on schedule, practicing rooming-in, and giving newborns no supplemental food or drink unless medically recommended – all of which closely approximate the "Ten Steps to Successful Breastfeeding" developed as guidelines for hospitals by WHO/UNICEF in 1989 (WHO and UNICEF 1989).

The 1997 AAP policy statement was replaced by a newer version in 2005. This policy builds upon and extends the previous AAP statement but is also connected to other breastfeeding policy developments – *Healthy People 2010, Blueprint for Action on Breastfeeding* by the Department of Health and Human Services, and the US

breastfeeding Committee's *Breastfeeding in the United States: A National Agenda* (American Academy of Pediatrics 2005). Other health professional associations, such as the American Academy of Family Physicians, and the American College of Obstetricians and Gynecologists[35], issued similar statements (DHHS 2000). Finally, in 2009, AAP officially endorsed WHO's "Ten Steps to Successful Breastfeeding" and developed a *Sample Hospital Breastfeeding Policy for Newborns* (American Academy of Pediatrics 2009). The new *AAP Breastfeeding Residency Curriculum* incorporates the "Ten Steps" (American Academy of Pediatrics 2010).

Second, the US responded to the Baby-Friendly Hospital Initiative (BFHI) launched by the WHO/UNICEF in 1991 in connection with the Innocenti Declaration. The goal of BFHI is to promote breastfeeding through maternity wards and hospitals by implementing the WHO/UNICEF "Ten Steps to Successful Breastfeeding." Specifically, BFHI is a system of implementation and assessment tools that enable hospitals around the world to be accredited as "Baby Friendly" (WHO et al. 2009). Typically, the accreditation process is conducted through designated national authorities. In the US, the national authority for BFHI – Baby Friendly USA, Inc - was established in 1997 through the cooperative efforts of several governmental and non-governmental organizations – the Healthy Mothers, Healthy Baby Coalition, Wellstart International, the Healthy Children Project, as well as the US Committee for UNICEF and the US Department of Health and Human Services (Baby-Friendly USA 2010b). By April, 2010, 91 US hospitals and birthing centers were deemed "Baby-Friendly" (Baby-Friendly USA 2010a).

[35] Other professional associations that have policies on breastfeeding promotion include: American College of Nurse-Midwives, American Dietetic Association, Association of Women's Health, Obstetric and Neonatal Nurses and the National Association of Pediatric Nurse Practitioners.

Third, in fulfillment of the requirements of the Innocenti Declaration, a national breastfeeding committee was established in the US as a non-profit, multi-sectoral organization composed of representatives from NGOs, government, and health professional associations (United States Breastfeeding Committee 2001). The movement to create a breastfeeding committee started in 1995 when the National Alliance for Breastfeeding Advocacy (NABA) was established to represent IBFAN and WABA in the US (NABA 2010; United States Breastfeeding Committee 2010b). In 1996, NABA and the Healthy Children Project organized the first National Breastfeeding Leadership Roundtable, at which the breastfeeding committee was conceived. Finally, the United States Breastfeeding Committee (USBC) was formally established in 1998 with the endorsement of Assistant Surgeon General Dr. Audrey Nora (United States Breastfeeding Committee 2010b). Also in 1998, the US Department of Health and Human Services, along with several other organizations, co-sponsored the National Breastfeeding Policy Conference. USBC was asked by the federal government to develop a strategic plan based on policy recommendations from this conference (United States Breastfeeding Committee 2010a). In 2001, the USBC issued *Breastfeeding in the United States: A National Agenda* (United States Breastfeeding Committee 2001). In the spirit of the Innocenti Declaration, this document outlines measures to ensure that breastfeeding is recognized as the preferred method of infant feeding by both the public and the government (United States Breastfeeding Committee 2010b).

Finally, in 2000 the US Surgeon General issued another comprehensive policy statement, “HHS Blueprint for Action on Breastfeeding.” The Blueprint specifies a set of measures to increase US breastfeeding rates according to the goals of Healthy People

2010. It draws upon and reaffirms commitment to other policies discussed above – e.g., WHO/UNICEF's "Ten Steps to Successful Breastfeeding," the ICMBS, and the USBC strategic plan for breastfeeding.

In sum, US national breastfeeding policies since the 1980s have been influenced by several world-cultural models – the WHA goal of *Health for All by the Year 2000,* the WHO Alma Ata Declaration of 1978, the Innocenti Declaration of 1990, the WHO/UNICEF "Ten Steps to Successful Breastfeeding," and the Baby-Friendly Hospital Initiative, as well as a number of WHA resolutions promoting exclusive breastfeeding up to six months of age and continued breastfeeding up to two years or longer.

Still, government policies are not the only route through which world-cultural scripts promoting breastfeeding enter the US. Other important channels include parental advice literature, professional advice via lactation consultants, birthing classes, and Internet parental support groups.

For example, many parental advice books draw on recommendations by WHO/UNICEF when discussing infant feeding. A popular guide by the American Academy of Pediatrics, *Caring for Your Baby and Young Child, Birth to Age 5*, refers to WHO's recommendation to "breastfeed as long as possible, one year or even longer, because breastmilk provides optimal nutrition and protection against infections" (Shelov and Hannemann 1998: 72). Similarly, the best-selling book by Eiger and Olds (1999), *The Complete Book of Breastfeeding*, has multiple references to WHO/UNICEF guidelines to breastfeed for at least two years. Another well-known book, *The Baby Book*, by Sears and Sears (2003), albeit not explicitly mentioning its sources, promotes

exclusive breastfeeding up to six months of age as congruent with WHO recommendations.

Another possible route through which world-cultural scripts on infant feeding reach individual parents is through birthing and breastfeeding classes, doula services, and lactation consultants. According to the CDC, in 2005 about 2.4% of US mothers used doula services during labor (Centers for Disease Control and Prevention 2005), and in 2006 there were 2.2 international board certified lactation consultants and 0.34 La Leche League groups per thousand live births (Centers for Disease Control and Prevention 2009). Both La Leche League International (LLI) and the International Lactation Consultants Association (ILCA) are members of WABA, which, as discussed above, is actively involved in the creation and dissemination of world-cultural models and scripts on infant feeding.

Finally, world-cultural scripts on breastfeeding have an impact via the Internet. Half of the US mothers I interviewed said that they participated in online parental support groups or did online searches to find information on infant feeding. Multiple popular US websites for parents, such as “babycenter.com,” “kellymom.com,” “kidshealth.org,” “breastfeeding.com,” and “lli.org,” contain WHO/UNICEF guidelines on breastfeeding or mention the new breastfeeding recommendations by AAP. Nine of the US mothers I interviewed specifically mentioned that they used “babycenter.com” or “kellymom.com.”

Conclusion

I have shown that Ukraine and the US have very different contexts for infant feeding. In Ukraine, the traditional model of infant feeding has been breastfeeding with

early supplementation; in the US, formula feeding was the dominant method throughout much of the twentieth century. Nevertheless, the two countries have both experienced the impact of world-cultural models and scripts on infant feeding, albeit in somewhat different ways.

Largely shut off from the rest of the world until the breakdown of the Soviet Union, Ukraine in the 1990s has experienced an influx of various cultural scripts on infant feeding, both those promoting commercially produced baby foods and those promoting breastfeeding, and especially exclusive breastfeeding via various WHA resolutions, WHO/UNICEF's "Ten Steps to Successful Breastfeeding," and the Baby-Friendly Hospital Initiative. As a result, since the 1990s exclusive breastfeeding and formula feeding emerged as alternative models competing with the traditional Ukrainian model of breastfeeding with early supplementation.

The United States, on the other hand, being home to many multinational producers of baby food, has long been at the core of production of cultural models promoting formula feeding. Increasing urbanization, the medicalization of motherhood, the growing power of the baby food industry, the structure of medical education and hospital care, and increased employment of women were among the host of factors that contributed to the increasing dominance of bottle feeding in the US between the early 1900s and the 1970s. The reversal of this trend coincided with the development in the late 1970s and 1980s of world-cultural scripts promoting breastfeeding, especially the Innocenti Declaration of 1990, the WHO/UNICEF "Ten Steps to Successful Breastfeeding" and the Baby-Friendly Hospital Initiative.

In the next chapter, I will consider how these diverging country contexts differently interact with global economic, political, and cultural factors, producing different impacts on parents' infant feeding decisions and discourses in the US and Ukraine.

CHAPTER 6

FEEDING CHOICES:

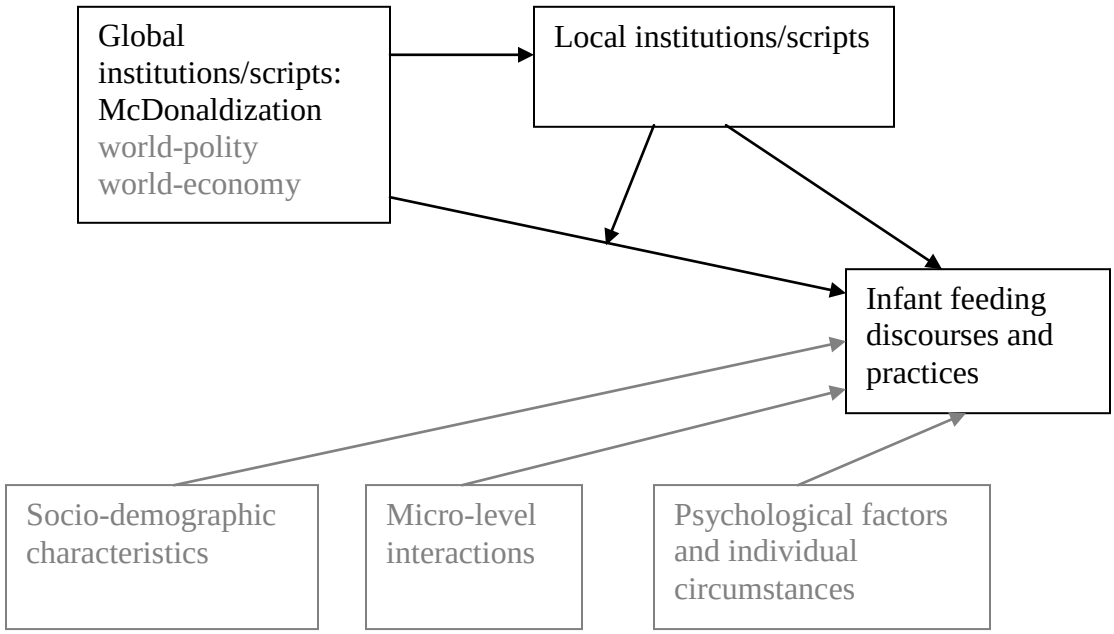
WHEN DOES MCDONALDIZATION MATTER?

My analyses in Chapter 4 have shown that infant feeding is impacted by factors involved in globalization – increased rationalization and McDonaldization of societies, integration into the world economy and world society, and, especially, national adoption of ICMBS-based laws. Nevertheless, final decisions on specific methods of infant feeding rest with individual caretakers. The existing research shows that whether or not mothers choose to breastfeed, bottle feed or combine different methods is affected by a complex array of physiological (Blau et al. 1996), psychological (McKinley and Shibley 2004), and social variables, such as women's SES, age, race, marital status, employment status, the availability of social support, or cultural context (Riordan and Auerbach 1998), etc. It is thus not clear in which cases global factors matter and how they interact with more micro level factors to affect caretakers' decisions about infant feeding. In this chapter, I consider how infant feeding decisions are affected by both country-specific institutions and McDonaldization processes involved in globalization (see Figure 4 below). In the following chapter, I conduct similar analyses but focus on the impacts of the world-polity and world-economy; in addition, I examine how the effects of global factors are mediated by micro-level interactions and women's personal circumstances.

I discuss my findings both in relation to my theoretically-generated hypotheses and, inductively, based on the themes emergent from coding of interviews according to the grounded theory approach (Strauss and Corbin 1990). Below, I will briefly review

my theoretical predictions in relation to the processes of rationalization/McDonaldization and the impact of local cultures.

Figure 4. Factors Affecting Individual Infant-Feeding Decisions and Discourses



**** Factors shown in gray will be discussed in the next chapter***

McDonaldization theory predicts that the prevalent criteria for infant feeding decisions should be those of convenience, efficiency, calculability, predictability, and control. For example, a mother may say that she chose bottle feeding because it takes less time (and thus is more efficient) than breastfeeding. However, the theory predicts stronger effects for the US, as a country with a higher degree of modernization and rationalization than Ukraine. Hence, in Ukraine I expected to find more emotion- or tradition-based infant feeding decisions than in the US. I also expected that infant feeding

decisions using efficiency criteria, in Ukraine, would more likely be made under the influence of global rather than local cultural scripts. These theoretical predictions translate into the following qualitative hypotheses:

Hypothesis Rq1. The criteria of convenience, efficiency, calculability, predictability, and control will be prevalent in infant feeding discourses of both US and Ukrainian mothers.

Hypothesis Rq2. Because the US has a higher degree of rationalization than Ukraine, the criteria of convenience, efficiency, calculability, predictability, and control will be more prevalent among the US rather than Ukrainian mothers.

On the other hand, macro-anthropological theory of globalization predicts that the different socio-cultural contexts in the US and Ukraine will have distinct impacts on infant feeding decisions, and that these contexts will mediate the influence of global factors. I used the grounded theory approach to uncover these culture-specific influences.

Hypothesis MA1. Caretakers' infant feeding decisions and discourses will show country-specific differences accounted for by different US and Ukrainian socio-cultural contexts. These contexts will also mediate the impacts of global cultural factors.

My findings confirmed the above hypotheses in that women did relate efficiency criteria regarding their infant feeding decisions and discourses, and in the US this approach was clearly more widespread than in Ukraine. Moreover, as predicted by macro-anthropologic theory, the impact of McDonaldization varied by cultural context. In Ukraine, where breastfeeding is strongly institutionalized, McDonaldization mostly affected decisions about supplementary foods (i.e., home-made supplements vs. baby

food in jars and instant cereals), while in the US women used McDonaldized criteria when making the choice between breastfeeding and formula feeding, as well as the choice of supplementary foods. I next review these findings in detail.

Breastfeeding: Taken-for-Granted or Rationalized?

In this section, I describe discourses focusing on early infant feeding decisions (*primary decision-making*) – what to feed newborn babies. The major choices at this early stage concern whether to breastfeed, formula-feed, or do a combination of both[36]. Mothers' *secondary decision-making* about the introduction of various supplementary foods and liquids, or changes in infant feeding methods, will be discussed in subsequent sections.

One of the strongest findings regarding primary decision-making is the degree of taken-for-grantedness of breastfeeding. All Ukrainian and all but one US mothers in my sample tried breastfeeding (exclusively or along with formula) within the first month of giving birth. The processes that led them to initiate breastfeeding, however, were strikingly different in the two countries.

Ukrainian mothers not only did not apply rationalization criteria in their decisions about what to feed their newborns, they did not even frame their decisions about breastfeeding as a rational choice. In a typical discourse by a Ukrainian mother about how she first started feeding her newborn, the decision to breastfeed turns out to be a non-decision; it is described not as a conscious choice but as the taken-for-granted default

[36] In Ukraine, due to the tradition of early supplementation, the decision about feeding a newborn may also involve whether or not to give water. This decision, however, is not relevant for any research question discussed in this section and will be held for a later section. In rural Ukraine, there are also instances of newborns being fed animal milks (see Chapter 5), but in my sample no mother considered this option for an infant less than five months old.

position. For example, a number of mothers noted that they started breastfeeding because "every mom does it." Here is how it was expressed by Alexandra, the mother of a five month old boy:

> Why did I decide [to breastfeed]? Now it is even difficult to say. Well, it is the most natural thing to do. Natural decision, huh? It seems to me, from the moment of giving birth every mom hopes for it. I believe nobody thinks from the first day, "I'll just formula feed," right? (Alexandra)

Very similarly, another mother noted when asked why she started breastfeeding:

> Well, because everyone originally thinks she would be able to and would do breastfeeding, right? Well, women do not start out making plans to formula feed. At least, in this country. Generally, it is so… Generally, you hope that everything will be fine, your milk will come, and everything will be OK. (Nastia)

Other common explanations that reflect taken-for-grantedness of breastfeeding by Ukrainian interviewees were that they 'simply started' or 'always knew' that they would breastfeed. Consider the following example.

> … I always knew that I would breastfeed, that this would happen. It was just so… of course, yes! I even remember when I was pregnant I was consulting with my girlfriends how to prepare my breasts for breastfeeding, so that there will be no painful cracks. So, I simply knew [that I would breastfeed] and did not even think otherwise. (Dasha)

In a similar fashion, a very well educated mother of a nine month old boy explained to me that, although she knows a lot about breastfeeding from the literature, she did not read that literature in order to "choose" her method of infant feeding – she always knew that she would breastfeed:

> Well, I had the literature and that's how I got [my knowledge]. But I did not have such a goal to learn the advantages of breastfeeding. Somehow, I have just known it, I've had it in me that it's better; that breastfeeding is better, and that's all there is to it! I did not consciously think about it. (Anna)

Finally, many Ukrainian interviewees described breastfeeding as a "natural thing" to do, like Kira, the mother of a ten month old girl, who expressed the notion of nursing as "conceived by nature:"

> Yes, I knew that I would breastfeed. Well, it is normal, it is physiological, this is how it is conceived by nature. Therefore we did not even think about formula feeding. If there were no breastmilk or some problems, or impossible to breastfeed, then we would [consider formula]. (Kira)

In sum, the overwhelming majority of Ukrainian mothers I interviewed did not make a conscious choice between breastfeeding and formula feeding when first feeding their newborns. When I asked how they decided to breastfeed, most women answered that they did not consider any other options; but breastfeeding was the default[37]. When explaining their preferences for breastfeeding, some women listed health benefits of the method, but they did not "choose" breastfeeding because of these benefits -- they simply did not consider formula as an option.

The decision-making process regarding feeding newborns was very different in the US. Twenty-nine out of thirty US mothers initiated breastfeeding within the first month of birth, but, in contrast to Ukraine, most US mothers made their primary decision to breastfeed through a rational choice process.

As in Ukraine, several US mothers took breastfeeding for granted and said that they "always knew" that they would breastfeed. This attitude was especially pronounced in those rare cases of women who witnessed breastfeeding of younger siblings by their mothers or relatives. When asked why she started breastfeeding, Francheska, a stay-at-home mother of three, replied:

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[37] Out of thirty mothers in Kiev, only one reported that even before her baby was born she "planned" to introduce formula at four months of age when she was supposed to return to full-time employment.

> Way before I ever had kids. I pretty much never considered bottle feeding, probably because when I was - my first niece was born when I was 9, so I have a lot of nieces and nephews who are older and I grew up as an aunt, and I saw my sisters-in-law breastfeeding. And I never really considered anything else. It just seemed natural and obvious. And then as I got older and just learned more, that that's just the healthiest thing to do, and in many ways, the most convenient and the most economical and all these benefits, I just never really thought about it. It was just a given that I would breastfeed before we even had kids. (Francheska)

Even so, Francheska's discourse on infant feeding exhibited an important difference from discourses by Ukrainian mothers: she explained that she also started occasionally to supplement with formula and she did so out of 'convenience' rather than 'necessity,' as was common in Ukraine:

> But I kept it [a formula sample received in the hospital], and then I was glad that I did because I kind of lightened up and thought, if I'm going out - and it's really hard for me to pump because I have an electric pump - it's really hard for me to pump and I pump, pump, pump, get that much milk. And pump, pump, pump. I can just give her this formula for once every two weeks, not even, probably not even that frequently. So that's why she's been supplemented. And I, actually - it's just been way easier to not have to worry about it. (Francheska)

However, in contrast to Francheska, the majority of the US women did not take breastfeeding for granted; they reported making conscious decisions about which method of infant feeding to choose. One of the common themes was that the woman did not have 'any preconceived notions' about infant feeding before pregnancy and she arrived at her decision through thorough research. This is well expressed by Oliver[38]:

> Yeah, I really didn't have any preconceived notions about it. Really while I was pregnant, my friends that gave birth attempted to breastfeed. That was probably the first time I even was - started even thinking about was I going to breastfeed, or was I going to give him bottles. Two of my friends had a lot of trouble. They tried the breastfeeding, couldn't, and had to go to formula. So it was probably during about the fourth, fifth month of my pregnancy that I really started researching it, and talking to my midwife

[38] Oliver is a pseudonym chosen by mother herself. Due to considerations of privacy, I use fictional names for all study participants.

> and other couples about the options. So that's probably the first time I really started forming any opinion, one way or the other. The benefits and cons of it all. Obviously, I came to the conclusion that if I could, breastfeeding was just the better way to go. But I clearly, after my friends had issues, knew it wasn't a guarantee that it was going to happen. (Oliver)

This quote exemplifies a cultural script very different from those found in the "taken-for-granted" scenario. In contrast to mothers who said that, rather than 'making a decision' to breastfeed, they simply started breastfeeding, Oliver made her decision through rational choice – researching her options and weighing "benefits and cons." This script of rational decision-making was rather typical of the US interviews. Like Oliver, mothers often noted that they "started out" with no "strong opinions" on infant feeding, but they made their choice through research – reading specialized literature, talking to experienced friends or healthcare providers, and so on. Here is how Vanessa, the mother of a three month old girl, describes her process of deciding to breastfeed:

> Oh, yeah. It was something I had to sleep on it, wake up again, think about it some more, go to sleep on it. I mean, it was a whole process in the decision-making. The reason why was because I wasn't, like I said, I started off, I didn't know what it meant to have a baby or what details went into it. (Vanessa)

Mya, the mother of two children, describes how she did not have a "strong opinion" about infant feeding before her first child was born, but she made her decision during the first few weeks after giving birth. Even though her child had trouble "latching on," Mya decided to feed him exclusively with pumped breastmilk, rather than supplementing with formula, based on her reading about the benefits of breastmilk.

> I really didn't care, back then. It's like I almost was uneducated about kids, and I didn't have a strong opinion. And then, as I felt like I was reading much more - because, as I was pumping in the middle of the night, I would read all of the books about children. And I remember I was just so amazed at how much healthier it was for kids to have breastmilk instead of

> formula. And it was - that's what I needed to keep doing it, in the middle of the night. I just need to keep reading about how much better it was for them to get it. (Mya)

A stronger variant of this rational choice script emerges in cases in which mothers noted that they made the decision to breastfeed despite personal aversion to breastfeeding, as happened with Emily:

> When I was younger, I never - well, I didn't think I was gonna have children and I never thought I was gonna breastfeed. I thought it was just gross. Even when I was pregnant, it was - I wasn't a hundred percent sure I was gonna do, but then the more I read up on it, and I went to a breastfeeding class. And then just hearing the benefits and everything, I just, I thought, "I'll give it six months. We'll see how it goes." (Emily)

This aversion to breastfeeding was even more strongly emphasized by Rose, who explains that she chose to breastfeed when she learned that she would have a girl and she knew from the literature that breastfeeding protects from breast and uterine cancers that run in her family. Despite that, her distaste of breastfeeding is rather intense:

> I don't like it. And my mother thinks that's terrible. But I don't like it. I don't like the way that it - like when she was suctioning, I don't like the way it feels. I don't like the way the, you know, you have to wear these certain bras. I don't like the bras. I usually refuse to wear the bras when I go out. I wear them at home, but today I was out so I have on a regular bra. I don't like the inconvenience of whenever it's what she - when she wants it, she gets it and I have to just stop what I'm doing. So no, I don't like breastfeeding, but I'm doing it because I feel like it's the right thing to do, and I feel like it's the healthy thing to do. (Rose)

This negative attitude toward breastfeeding, which is absent in the Ukrainian interviews, is well understood within the US cultural context where the breast has long been viewed as a sexual symbol more than an organ of lactation, a cultural trait that readily makes women uncomfortable with breastfeeding in public (Baumslag and Michels 1995; Blum 1999). Accordingly, most US mothers spontaneously brought up issues related to breastfeeding in public. This theme was also closely connected to the

theme of formula as normative in "the culture" – even decidedly pro-breastfeeding mothers related the perception that formula feeding, especially in public, was more socially acceptable in the US:

> Formula is the culture. Formula is the - if you're having any remote problem with breastfeeding, formula is the answer. The answer is not, "Let's fix your breastfeeding problem." It's, "Let's supplement." Supplement, supplement, supplement… So I think that, yes, we, the United States is a formula feeding culture and the fact that wherever I go, I have to sit in my car and breastfeed because I can't - even if I was willing to sit in the bathroom, I'm not sitting on a toilet - they should at least have a stool. Like there's not places for me to go, but I see moms walking around with the bottle everywhere, even if the bottle has breastmilk in it. (Rachel)

This discourse was typical, though expressed in many different ways in describing how bottle feeding was the preferred method of feeding in public:

> I guess the pros with formula, I would say, it seems easier, which it really isn't, but it seems easier, like as far as the public goes. Like we're out at McDonald's right now. When you're feeding your baby formula, you just put the powder in the water or shake up a bottle and give it to him and nobody has a problem, versus when you're breastfeeding, you get the looks, you get the stares, you get comments. It'll make you uncomfortable, as well. (Renee)

In sum, the majority of US women consciously chose to breastfeed their newborns, sometimes despite personal aversion to breastfeeding and the inconvenience of breastfeeding in public. They relied on research that led them to conclude that breastfeeding was a better way of feeding a newborn due to its many health, emotional, and economic benefits. As succinctly put by one of the Atlanta mothers, Kristy, "those are the primary reasons that we decided to do breastfeeding, because it's better and it's cheaper."

Interestingly, even though I expected that women would use efficiency criteria in their decisions to use formula rather than breastfeed, I found that McDonaldized

discourse can also be applied to breastfeeding, or more precisely, to feeding with pumped breastmilk. To Elisabeth, a mother of twins, breastfeeding represented a problem because she couldn't get enough breastmilk for both babies:

> For us because of the two babies, and because I have one very high producing breast and one very low producing breast, there was no way that I could feed both babies at the same time. That meant if I have two babies that are hungry at the same time, that is a half an hour of dealing with one who might - and then she probably would take all of the milk, and then there would be nothing left for him. And he's still hungry. (Elisabeth)

Elisabeth explained that she attempted to initiate breastfeeding but it was not "efficient" so she introduced pumping as a more predictable and reliable way of providing her babies with breastmilk:

> I have nursed each baby but, just in general, it wasn't an efficient way to get them fed when they were hungry. It just was complicated. He had stomach acid issues, so he would get very agitated and it was painful. And he had difficulty latching on. That gave us a whole sort of constellation of things that made it really challenging. So really, right from the beginning, I very quickly changed my mind from, I was going to try to breastfeed them, to I think I'm just going to pump. That would be a way to get milk to both of them at every feeding. (Elisabeth)

Summary

To summarize, in this section I have considered mothers' motivations behind initiating breastfeeding. Even though all but one mother in my sample initiated breastfeeding, their discourses reflected different cultural scripts in the US and Ukraine. In accordance with the rationalization scenario, US women were more inclined to use a rational-choice approach when making their primary infant feeding decisions. It was common for them to consciously "choose" breastfeeding based on thorough research. In contrast to the hypothesis that globalization entails an increasing degree of rationalization

of societies, the Ukrainian women took breastfeeding for granted and did not apply the rational choice framework to their primary infant feeding practices. Such different approaches are well understood when the different socio-cultural contexts are taken into account.

The taken-for-grantedness of breastfeeding in Ukraine is a central element of the traditional model of infant feeding in Ukraine, breastfeeding with early supplementation. Throughout the twentieth century, Ukrainian women have normally initiated breastfeeding at birth while adding supplemental foods, liquids or formula after a few months. In 2007, the rate of ever-breastfed infants in Ukraine was 95.6% (WHO 2008). In contrast, in the US in 1972, fully 78% of children never received breastmilk (Ryan et al. 1991), which clearly indicates much less institutionalization of breastfeeding. The "formula-feeding culture" is still rather strong in the US, although breastfeeding has become more common in recent decades, with the rate of ever-breastfed infants approaching 73.9% in 2006 (Centers for Disease Control and Prevention 2009). Further, because the US displays a much higher degree of modernization and rationalization than Ukraine, it is not surprising that the US women rationally see breastfeeding as a "choice," not a given.

The flip side of the issue is that, contrary to the McDonaldization scenario, neither Ukrainian nor US women invoked efficiency criteria to explain their choice of formula as a preferred method of feeding a newborn. This fact is more readily understood in the Ukrainian case, given that Ukrainian women did not make rational decisions about primary infant feeding practices. On its face, it seems harder to explain this finding for the US, but it becomes more intelligible in the light of other findings. As I show in the

next section that, in contrast to most Ukrainian mothers, the US women I interviewed did perceive formula as more efficient, predictable, and allowing for more control than breastfeeding. Despite this, the US women did not rely on such criteria when making their primary infant feeding decisions. These findings suggest that even though McDonaldization is a powerful cultural logic, it is not the only logic guiding infant feeding decisions in the US, as we shall see.

Formula: Convenience or "Chemistry?"

The focus of this section is secondary infant feeding decisions – when to introduce supplements or to make changes in feeding methods. Even though fifty-nine out of sixty women in my sample intended to breastfeed and initiated breastfeeding shortly after giving birth, many eventually introduced formula as a supplement or as the main method of infant feeding. In both countries, those who did so frequently explained their introduction of formula as a "necessity" because breastfeeding did not work out. Nevertheless, important cultural differences obtained. Women in Ukraine did not perceive formula as "convenient," even though some women discussed calculability, predictability, and control in relation to formula. In fact, most Ukrainian women viewed breastfeeding as more "convenient" than formula feeding, and they did not perceive any significant advantages of formula, even viewing it with a degree of suspicion as artificial food or "chemistry." In contrast, the discourse in the US indicated that, even though women chose breastfeeding due to its advantages for the baby, they still viewed formula as more convenient, efficient, and predictable.

The US Case

A total of twenty-two infants in my US sample ever received formula. Two of them were formula-fed only for the first several days while still in a hospital, four others occasionally received supplemental formula for the first couple of months and eventually transitioned to breastmilk. The remaining sixteen were still receiving formula at the time of the interview. Among these sixteen formula-fed infants, eleven received a combination of formula and breastmilk, whereas five others were formula fed with food supplementation but no breastmilk (Table 9 below).

Table 9. Infant Feeding Practices, US Sample

Indicator	USA				
	<= 6 months old	%	>6 months old	%	Total
Number of children in each age group	8	27	23	73	31
Ever breastfed					30
Ever used formula					22
Feeding type (at the time of interview):					
exclusive breastfeeding	1	12.5	1	4	2
breast, supplements	2	25	10	44	12
breast, formula	4	50	0	0	4
breast, formula, supplements	1	12.5	6	26	7
formula	0	0	0	0	0
formula, supplements	0	0	5	22	5
animal milks, supplements	0	0	1	4	1

Thus, out of twenty-nine US mothers who initiated breastfeeding, fifteen supplemented breastfeeding with formula at different points in their babies' lives, and four dropped breastfeeding and switched to feeding with formula and supplementary

foods by the time their infants reached the six-month milestone[39]. Below I consider mothers' discourse explaining the introduction of formula, despite their original preference for breastfeeding. I give special attention to the role of rationalization/McDonaldization.

One of the widespread themes of mothers' discourse about formula use was problems in establishing lactation. Thirteen mothers had to start supplementing with formula while still in the maternity ward, within hours or days of giving birth. These women explained that supplementation was introduced due to medical recommendations, e.g., the baby was born prematurely, was underweight, had problems latching on, or was losing weight; or the mother was unable to tend to her newborn because, for example, the birth involved a caesarean section. Here is an example related by Elisabeth:

> And certainly, when the babies were born and the nurses who were doing that initial inspection said: "Both of them have low blood sugar. Would you like us to give them formula?" To me there was no other answer than yes. It seemed silly to me to say, no, you should starve them, you know, probably because I'm so committed to breastfeeding. Anyway, so really right in the beginning, we had the formula incorporated into their lives and had no issues with it. (Elisabeth)

According to public health research, such early introduction of formula may interfere with breastfeeding by creating such problems as nipple confusion or by initiating a vicious cycle of formula use: reliance on supplements induces the mother's body to reduce the production of milk, which in turn requires the introduction of more supplementation, which further reduces the supply of breastmilk (Peters et al. 2006; Riordan and Auerbach 1998). Out of the thirteen women who introduced formula within several days of giving birth, one never established breastfeeding, two others did a

[39] The number of US women who used formula is twenty-one rather than twenty-two because one mother in my sample had twins; for the same reason, the number of mothers who dropped breastfeeding is four, rather than five, which is the number of infants who only receive formula and supplements in Table 9.

combination of breast- and bottle feeding for several months and then abandoned breastfeeding, and two reported that they continued having problems with lactation, such as insufficient breastmilk supply, so they had to continue supplementing breastfeeding with formula up until the time of the interview. Here is how Mikayla, a mother of three children, explained why she had to continue supplementing breastfeeding with formula:

> My original thought was breastfeed…With her, she couldn't latch on at first, so they [medical personnel in the hospital] gave her a bottle, but then I breast-fed her that night. She latched on, but then she'd act like she couldn't latch on. It was back and forth. Even now, she'll act like she can't latch on at three months. No specific reason. (Mikayla)

Nevertheless, eight out of these thirteen women were able to successfully establish lactation and eventually graduated to breastmilk or breastmilk with food supplements[40], as was the case with Rebecca:

> Before we had kids, I decided that I wanted to breastfeed when I had kids. And I really wanted to start right from the start, no formula ever, but circumstances were just a little different than what we expected. We didn't expect him to come early. And the c-section was expected, but I thought that I was gonna get to be able to nurse him within a couple hours after his birth. And that didn't happen exactly as planned, but we were still able to get started and get established. And I did - I was pumping, mostly, while he was in the hospital because he was so small. He just wasn't able to latch and able to do any of that stuff yet. So I was pumping and they were either bottle or tube feeding him that way. And then, once we got out of the hospital, I was still pumping and feeding him bottles. But it just got old really fast and just kinda tiring, so I just decided just to try it again and make sure that we stuck with it. And we were able to get him exclusively breastfeeding within just probably about a couple weeks. (Rebecca)

[40] Two of these eight women were still occasionally supplementing with formula for the first couple of months but then dropped formula altogether. Six others were able to abandon formula within a couple of days or weeks of giving birth and were doing exclusive breastfeeding or breastfeeding with food supplementation for long stretches of time. Three of them remained "formula-free" until the time of the interview, one mother briefly reintroduced formula at five months because her breastmilk "was not enough" but then again mostly switched to breastfeeding (with food supplementation) and occasional bottles for convenience reasons. Two others reintroduced formula after six months of age – one for occasional convenience use, and another to return to paid employment.

In sum, one of the widespread themes of why women had to introduce formula, at least briefly, was trouble with breastfeeding initiation. Another frequent theme was that the return to paid employment or full-time studies[41]. This was the case for six mothers in my sample. Importantly, though, these women still tried to keep up lactation by pumping and, at the time of the interview, five mothers continued breastfeeding along with formula supplementation. A quote by Ashley exemplifies this discourse, stressing the struggle to keep up lactation after going back to work:

> Yeah, we tried a couple different things. My first couple weeks [at work], my mother and mother-in-law, since I'm three miles from work, actually brought him up for a morning feeding. It was really nice to get to see him when I was back at work, but I just - it didn't work out on a schedule because what if he'd just eaten or they had to wake him up to bring him. So that didn't work out. So I was pumping on all my planning periods. It worked for a couple weeks. I had some milk stored up from when I was at home. But it got to a point, right about when he was three months old, that I just wasn't able to pump enough to keep up with what he needed in a bottle. (Ashley)

Finally, six women in my US sample (among those who successfully established lactation) eventually introduced formula based on its greater convenience, efficiency, predictability, calculability, or control, as predicted by the McDonaldization hypothesis.

Star's story is a revealing example. She is a very active mother of five – not only does she take care of her many children, she also runs a consulting business and, being a former athlete, regularly works out in a gym. She is also very health conscious, and breastfeeding is important to her because of its many health benefits. Therefore, even though she might have preferred feeding both breastmilk and formula for convenience

[41] The theme of employment was more pronounced in the US than in the Ukrainian sample. Such disparity is understandable given the fact that in Ukraine women are legally entitled to 18 weeks of paid maternity leave (70 days during pregnancy and 56 days postpartum), when they are entitled to 100% of their salaries, and up to three years of unpaid leave, during which time they are eligible for social security benefits. It is less common in Ukraine to return to paid employment until infants reach at least four months of age. Respectively, the US sample had a somewhat higher number of women who were working full time – twelve as compared to seven in Ukraine.

reasons, she was not comfortable introducing formula before seven months of age because of the increased risk of allergic reactions and other negative health consequences. However, once her child reached seven months old and her immune system was stronger, Star started introducing a little bit of formula supplementation. She explained that by that time she was "tired with breastfeeding" and pumping, which was cumbersome as much of the time she had to pump in the car and store milk in a cooler, whereas formula allowed her to more easily be away for work or exercise.

> So I'm more comfortable with formula just a little bit as a supplement now. But as an infant, I'm not comfortable with the reflux and colic and all those different things. I'm not really comfortable with that, so I would do breastmilk, the whole up until this point. This is a point where I think - around 6-7 months; it gets to the point where you're tired of breastfeeding. And especially for me, I'm very active. I like for her to feel comfortable where she's able to stay with anybody and drink formula, and I don't have to worry about pumping. So right now, I pump in the car. If I'm gone away from her for a certain amount of time, I have to pump in the car in order to keep my milk production up. And I just keep a little cooler in there so I can keep milk stored. So that's becoming a little overwhelming as far as that goes. (Star)

Thus, for Star formula feeding offered more control, as it allowed her to delegate infant feeding to others, and greater efficiency because it was quicker and easier than pumping. This story is also very similar to the one told by Francheska in a previous section, as a US mother who took breastfeeding for granted. Francheska started giving occasional bottles of formula after her baby reached six months of age. In her case, pumping was not only time consuming but also somewhat unpredictable as she was never confident she could pump enough milk, so she started using formula on those rare occasions when she needed to be away from her baby.

> …I was always pumping and pumping and pumping and pumping, and it just took so much to get a little bit. And I'd try to have enough, and I'd always be afraid that if I left, she wouldn't have enough, and there were

> times I'd leave, and the baby would cry, and there wasn't enough breastmilk or it wasn't thawed. And just with having the formula, okay, it's there and I don't have to worry when I leave that my baby's not going to have any food. (Francheska)

Thus, formula offered her more predictability (she could always provide the necessary quantity of formula), efficiency (it was quicker than pumping), and control over her time and whereabouts (she could delegate infant feeding to other caregivers).

A similar case is Grace, who breastfed exclusively for the first two months and then introduced occasional bottles of formula so that the baby's father could sometimes help her with infant feeding. Grace also stressed the efficiency of formula:

> Okay. From my perspective, I think the formula feeding - I mean, bottle-feeding can be more convenient sometimes. The breastfeeding is convenient because I can do it any time. But then, there's times where - there's times where I need my hands. And there's times where I'm in a hurry - I meant to say in a hurry - and the bottle feeding works out much better because the babies drink from the bottle faster. They get fuller faster. And I think - I personally believe - I don't know for - for a fact but I personally believe that the formula is heavier than the breastmilk, that - it appears that way to me because he can drink a little bit of milk from his bottle and he seems to be satisfied. (Grace)

For this busy mother of three who did not own a pump, formula was a convenient and more efficient solution affording her more control over her time.

Another Atlanta mother, Angela, told me that she had "this big issue" with her weight – she was skinny and trying to put on some pounds. Angela explained that she "wanted [her] body back" and therefore switched from breastfeeding to formula. In other words, for Angela formula offered more control over her body.

> I knew I was gonna breastfeed this last baby. But we did it for a month. I guess I just wanted my body back and - I don't know. He was - he was a little greedy, so - well, maybe I was being lazy, I don't know, but I put him on formula. Maybe I didn't want to deal with the discomfort and all that stuff, I don't know. I was like, "Well, at least he'll get four weeks' worth, that's better than nothing." (Angela)

A more complex story was offered by Briana, a mother of three. She breastfed her two older children because of the health benefits but she was hesitant to begin nursing her youngest child because she thought that her two breastfed children were too attached to her, making it difficult to leave them with other caregivers.

> But the last one, I - I didn't wanna breastfeed because they all was spoiled and they attach to you because of the breast. And it took longer for me to get them off the breast, so with him, I said, "Nah, I'm just gonna give him formula." But then, when I got in there, I said, "No, it's healthier and it's good for him." So I did both with him. (Briana)

Briana initiated breastfeeding for her youngest son and did not introduce any formula until she had to resume work when he was six months old. Later she lost her job but continued supplementing with formula and eventually weaned her son to formula when he was nine months old. To Briana, even though breastfeeding is convenient in its own way, formula feeding offered more control because it made her child less attached to her and easier to leave with other people.

> So yeah, formula is good, too, like if you on the go. If you gotta work or you gonna babysit or go to Grandma's, that's good. When you breastfeeding it's totally different. You can't just - you can pour it in the containers and everything, but my baby, they never took it out of the bottle. They always want it firsthand, the breast. (Briana)

Finally, Rose also emphasized that formula is a better option when you are "on the go." As discussed in the previous section, Rose rationally chose to do breastfeeding despite her personal aversion to the method. Her relationship with breastfeeding, however, remained complex. She had to introduce formula when her child was just several days old based on medical recommendations related to baby jaundice. She used formula for several days and then switched to exclusive breastfeeding, which she maintained until she reintroduced formula at five months because the breastmilk "was not

enough." At six months, however, her baby was introduced to supplementary foods and Rose stopped routinely supplementing with formula because "[o]nce she started eating baby food, she got enough breastmilk along with the baby food." Even though, after six months, formula was not a necessity, Rose used occasional bottles of formula if she got "stuck in a situation" when it would be difficult or inappropriate to "just whip out… breast." For this mother, formula was an easier and more convenient option, but she did not use it often because of the health consequences for the baby:

> But yeah, formula feeding is easier, but it's not as good for my baby because every time she takes a bottle, which is maybe once every couple of weeks or something, she spits half of it back up. She regurgitates half of it because she's not used to it. She throws it up. So for her, it's not good. For me, it's great. But for her, it's not good. So now that she's eating food, I usually just try to get to where I can feed her some food actually. (Rose)

In sum, in the six cases discussed here, women were successfully breastfeeding and introduced formula supplementation because it offered greater efficiency, predictability, or control over their bodies, time, or whereabouts. In contrast to Ukrainian mothers, most US mothers considered formula convenient, efficient, and predictable even if they did not choose to use it.

All except four Atlanta mothers noted at least one convenience factor attached to formula. Overall, formula was perceived as a method of infant feeding which had fewer health advantages but was convenient for mothers. For example, Carol, who is "pretty adamant" about breastfeeding, never used formula with either of her two children, and breastfed her older daughter for more than two years, still sees formula as very convenient for the mother. When asked what she thinks about formula, Carol replied:

> Convenience. Maybe sleeping - well, convenience, period. Convenience for storage, for usage, for who feeds. My friends who…whether they pump or use formula, that means that dad can get up in the middle of the

> night to feed, you know, so convenience. Convenience to sleep, convenience for storage, convenience for location; you can put a bottle in the kid's hands anywhere. Convenience for - there's one other one that I thought of - oh, sleeping through the night sooner because it's heavier. That about covers it, but they're all just convenience decisions, yeah. (Carol)

Another staunchly pro-breastfeeding mother who, like Carol, never used formula and does not intend to, nevertheless, believed that formula was more convenient than breastfeeding:

> Oh, I completely understand why people like using it. It's much more convenient. Other people can feed the baby. It's much more convenient in that you have more mobility and freedom. (Katie)

In a similar fashion, Amanda noted that convenience is one of the factors influencing people to use formula. Interestingly, she directly compared formula feeding to eating out at McDonald's:

> I think Americans have been very lazy. They like stuff to be very convenient…There's so many restaurants here, we take our kids to McDonald's so much, or have the school kind of like raise our kids and not be at home with them as much as we need to because we have to go to work. (Amanda)

In general, this discourse stressing the overall convenience of formula was widespread. Some mothers specifically noted the efficiency, predictability, calculability, and control factors emphasized by the McDonaldization hypothesis. Consider, for example, this quotation stressing the efficiency of formula feeding as a method which works well for mothers who do not have time to breastfeed because they are "constantly busy" and constantly "on the go":

> As far as with the mother, I - most stay-at-home moms are more able to breastfeed. That would be an advantage for stay-at-home moms but a disadvantage for a mom who was constantly busy and constantly on the go. As far as with bottle feeding, I would say it's an advantage to both a stay-at-home mom and a working mom because it just - it's just more easier. You have your formula already there. Just put some more in it,

shake, shake, you know? (Allison)

The next quote is a good illustration of discourse emphasizing greater control, predictability, and especially the calculability of formula. The mother who discussed calculability had never used formula, was wholeheartedly in favor of breastfeeding and even jokingly called herself "kind of a boob Nazi", but she understood why formula can be attractive:

> I can see the freedom that you have and I think that's why in the '70s it was really popular too. Like you get freedom. You don't have to be tied to your kid. You can have somebody else feed them and you never have to worry about how much you're feeding your baby. You know how much you're feeding them. You're feeding them this amount in the bottle. You asked me how much I feed her. I have no idea. She could be eating one ounce a day, I don't know. I'm pretty sure not, but I don't know. But if I was giving her formula - and I think my husband likes with the breastmilk in the bottle, he would call me at work and say, "She ate three ounces. She ate five ounces. Today, she only ate six ounces," this sort of thing. And I think that sort of quantity… The quantitative amount that you can see, that you can set - like I think that's why people sometimes like it because they say, "I want to be sure that my baby is eating enough and gaining enough weight, so I will be able to say, 'Today they ate 16 ounces.' Period. The end. And then I know that each ounce with this many calories, and this was this." And with breastmilk, breastmilk is all kind of vague, and you're not sure, and your breasts don't show you how much you're making, and you're worried about - and you never have to worry about supply. You have a can. It's there or we have the premix. So I think those are some of the advantages that I don't think are advantages, but I can see them objectively as advantages. (Rachel)

In this quote, Rachel explained how formula allows mothers to delegate infant feeding to other people (greater control); whereas the supply of breastmilk is unpredictable, mothers do not have to worry about the supply of formula (greater predictability); whereas mothers do not know the exact quantity and quality of their breastmilk, they can readily see the exact quantity of formula their infants consume and know the exact amount of nutrients (e.g., "this many calories") contained in formula.

Other mothers, like Diana cited below, similarly stressed the predictability of formula with respect to nutrition:

> But maybe that's an advantage of having formula that you always know what your child's getting, that it's always healthy and you don't have to worry about what you're feeding yourself. But I don't - I don't know. (Diana)

Finally, the most popular theme (and most often mentioned) was the greater control associated with formula feeding. Repeatedly, mothers in my US sample discussed how formula allowed them greater control of their time (the ability to make and fulfill plans), bodies (e.g., the ability to be away from their babies), or their infants' bodies (the ability to control babies' weight by manipulating the amount of formula fed). For example, the next quote by Alex discusses the difficulties of planning life with newborns who are breastfed on demand. In contrast, formula feeding, which is usually done on schedule and at longer intervals, not only gives mothers the ability to sometimes get away from their infants but also allows greater control of their time.

> It [breastfeeding] is not as convenient as bottle-feeding. I can't say I'm gonna go do X, Y or Z for the day, and leave the baby with my husband or leave the baby with my mother. I can't even…The breastfeeding is about at the intervals now where I could do this, but for the first six, seven months of her life, I couldn't even go see a movie, just because I had to be here to feed her because she wouldn't take a bottle. So I would say that is definitely the biggest disadvantage of breastfeeding is that it's not as convenient as bottle-feeding. I mean, it's more convenient in the sense that it's very portable. I don't have to take formula and bottles, and I don't have to clean bottles, and all that kind of stuff. But as far as giving me time to do anything, I just haven't had that opportunity, but it also doesn't bother me that much. (Alex)

In sum, most US women in my sample, regardless of whether or not they used formula themselves, noted convenience as well as efficiency, predictability, calculability, and control factors associated with formula. True, thirteen women, like Alex cited above,

admitted that breastfeeding can also be convenient because "it's portable," available "24 by 7" and is always the right temperature, but this is still very different from the themes found in Ukrainian interviews, as we shall see below.

Ukrainian Case

In my Ukrainian sample, nineteen infants received formula at some point. Two of them received formula only briefly, for the first couple of days in the hospital; two others had brief periods of formula supplementation but were breastfed at the time of the interview; another baby was breastfed until 5 months of age when her mother lost her milk because of divorce, which resulted in formula feeding until eight months, when the baby started on cows' milk. The fourteen other babies were receiving formula at the time of the interview. Among these fourteen formula-fed infants, three received a combination of breastmilk and formula while the rest did not receive any breastmilk (Table 10 below).

In contrast to the US, all Ukrainian women who used formula said they did so out of "necessity" – e.g., based on medical recommendations, or because the breastmilk was insufficient or of poor quality. Fifteen women had to start supplementing with formula shortly after giving birth, while still in the hospital. As in the US, six women said that the reasons for hospital supplementation were premature birth or an underweight child, the baby's health problems, problems with lactation initiation, or the mother's condition after a caesarean delivery. Here, for example, is how Liuda explained why her child was supplemented with formula in the hospital:

> … [after giving birth] I immediately started breastfeeding, but the doctors told me: "She is low birth weight, she needs to be supplemented." And they would give me 30 grams [formula]… I mean, I would first breastfeed her and then would give her additional formula so that she could gain

> weight. Because they believe that if the child is less than 3 kilograms, then the child is underweight, she is small. Therefore, she was fed both [breastmilk and formula]. (Liuda)

Table 10. Infant Feeding Practices, Ukrainian Sample

Indicator	Ukraine				
	<= 6 months old	%	> 6 months old	%	Total
Number of children in each age group	10	33	20	67	30
Ever breastfed					30
Ever used formula					19
Feeding type (at the time of interview):					
exclusive breastfeeding	2	20	1	5	3
breast, water	5	50	0	0	5
breast, supplements	0	0	7	35	7
exclusive formula	0	0	0	0	0
breast, formula	1	10	0	0	1
breast, formula, supplements	0	0	2	10	2
formula, supplements	2	20	9	45	11
animal milks, supplements	0	0	1	5	1

However, other mothers mentioned that their infants received formula shortly after being born because hospitals routinely supplement all newborns for the first several days until the mothers' milk starts flowing. It must be noted here that during the Soviet era, hospitals in Ukraine, as in other Soviet republics, had multiple practices that are now believed to be detrimental to successful lactation initiation – e.g., newborns stayed in nurseries separately from mothers, the babies were brought in for feedings on a schedule, and breastmilk was routinely supplemented with glucose water or formula because mothers' first milk (colostrum) was believed to be insufficient (Agnew et al. 1997). After WHO/UNICEF launched the Baby-Friendly Hospital Initiative, many Ukrainian hospitals

introduced new routines to support breastfeeding initiation,[42] while others remain largely unchanged. Thus, eight out of fifteen mothers who supplemented with formula in the hospital reported that the reason for supplementation was that their infants were taken away from them to the nursery and supplemented there by medical personnel, or that the hospital supplemented all infants because colostrum was not nourishing enough. Here is how one of these women, Zhenia, described her hospital experience:

> First, after he was born, they immediately put him next to my breast. He stayed there for a little bit, and they took him away to measure his weight. I first wanted him in my room, but he was born a little bit premature, and we did not have time to arrange for a private hospital room where I could stay together with my baby, therefore they were only bringing him for feedings. I mean, I stayed separately from him… That's why I wanted to stay together so that I could constantly feed him with colostrum, so that I would have more breastmilk. But there, if you do not have breastmilk for the first three days, they would supplement with formula. (Zhenia)

Among those women who supplemented with formula in the hospital, only one mother continued formula supplementation upon hospital discharge. This mother reported that her breastmilk was insufficient so she was feeding both breastmilk and formula until her child was two months old, when her breastmilk finally "dried up." The other fourteen women discontinued formula and did exclusive breastfeeding or breastfeeding with food supplementation for different stretches of time: seven mothers had to reintroduce formula between one and three months of age because their breastmilk was insufficient[43]; two others reintroduced formula for the same reason but at five and eight months of age; two mothers were still breastfeeding successfully at the time of the interview and never

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[42] WHO/UNICEF launched the Baby-Friendly Hospital Initiative to promote successful breastfeeding initiation in hospitals and maternity wards through such practices as mother-baby rooming in, discouraging pacifiers and artificial nipples, early breastfeeding initiation (within one hour of birth), providing no supplementary formula, glucose water or other foods/liquids unless medically indicated, etc. By 2009, 220 hospitals in Ukraine were certified Baby-Friendly (UNICEF 2010a).

[43] Public health research shows that hospital supplementation with formula has a negative impact on the length of exclusive breastfeeding (Asole et al. 2010; Gagnon et al 2005).

reintroduced formula; two others reintroduced formula only briefly but were breastfeeding without formula supplementation at the time of the interview; and two reintroduced formula after 6 months of age because of employment. Additionally, four women who did not supplement at the hospital introduced formula at two, four, and five months of age, one on medical recommendation because her child was "allergic to breastmilk," two because breastmilk was insufficient, and one mother who "lost" her breastmilk because of divorce.

In sum, none of the Ukrainian mothers introduced formula for the sake of convenience. Notably, out of thirty mothers in Kiev, only one reported that she "planned" to introduce formula at four months of age when she was supposed to return to full-time employment. The remaining Ukrainian women who used formula products explained the practice as a 'necessity' rather than a free, rational choice. The most often cited reasons for switching to formula were lack of breastmilk (e.g., due to illness or psychological trauma, such as divorce), breastmilk of poor quality (low in fat) or insufficient quantity, the need to get back to their jobs, or the baby being allergic to breastmilk. Overall, formula was considered to be "the last resort" when breastfeeding did not work out. This cultural script is well expressed in the following quote by Alexandra:

> I did not plan to formula feed. It just so happened that my child had not been gaining weight for about two months; it just happened that my milk was too little. It was not enough. At his age, he should have, suppose, 180 milliliters, but I have, for example, in one breast only about 50-60 milliliters. So that was like for a newborn, and he was simply not gaining weight and I had to start supplementing him with formula, even though I did not plan to… Why didn't I plan? Well, I think that breastmilk is better for a child. Formula is the last resort in such cases as ours. The child does not grow – what should you do? Formula feed. (Alexandra)

In contrast to some literature that suggests that in less developed countries, formula feeding is often viewed as prestigious, modern, sophisticated, or classy (Esterik 1989), I found that formula was viewed with some suspicion and distrust. One of the common themes was that women were "afraid of" formula because of its impact on infants' health, such as potential problems with the digestive system, obesity, and allergies. Thus, Elena, a working mother of an eleven month old girl, told me about her struggle to maintain lactation despite full-time employment. When asked whether formula could be a convenient solution in her situation, she answered: "Well, no! I am afraid that if she were formula fed, my child would not be as healthy as when she is breastfed."

Another common theme related to distrust of formula was representation of formula products as some sort of artificial food, or "chemistry." This theme was especially prevalent among women who had less education and less access to modern information sources. As a rule, these women were the first generation of urban dwellers in their families; they had relatives in the countryside and maintained close connections with their roots. In their discourse, formula and prepared baby food were contrasted to natural (raw) cows' milk and fresh fruit and vegetables produced in the countryside. For example, Julia, a mother of two children, told me that in her infant feeding decisions she was influenced by her mother, who had lived most of her life in the countryside:

> My mom, she does not like chemistry at all, all these baby jars, everything bought in the store, she does not like that. She says that it is better to make everything at home. There is no good formula that can completely replace breastmilk… (Julia)

A similar remark was made by Vera, another mother of two children, who also has relatives in the countryside:

> Well, breastmilk is not your formula – nobody knows what they make this formula from. But with breastmilk you know what you ate, you know that you stay healthy, eat well, so you know that your breastmilk is good and your baby eats well; there is no reason to feed baby with this chemistry, because you cannot call it anything else. (Vera)

Within this cultural framework, formula can also be juxtaposed to natural (raw) cow or goat milk direct from the countryside. Oxana, a young mother who lives in the Kiev suburb of Borispol and has relatives in the countryside, told me that she had a lot of issues with formula products, which upset her child's stomach. Oxana knew that in the village where her relatives live, people feed babies with diluted cow milk instead of formula. She wanted to introduce raw (boiled) cow milk from the countryside when her child was six months old, if she could find a reliable supplier:

> If there is no breastmilk, (in the villages) they feed with diluted cow milk, that's all. I want, want to introduce cow milk, but probably starting at six months old, because my village is very far from here, and here in Borispol I do not have a trusted supplier of home-produced cow milk. And because people these days cannot be trusted, I am afraid. (Oxana)

Sveta, who lives in a Kiev suburbs densely populated with migrants from the countryside, tells a similar story. Her relatives, and especially her husband's family, believed that natural products ('naturprodukty') are good for the baby and they urged her to start early supplementation of breastfeeding with various foods and liquids, such as cereals or bread soaked in milk. Based on their recommendations, Sveta introduced diluted goat milk when her baby was six months old but had to stop this practice because her child developed an allergic reaction: "I also believe that natural products, such as goat milk, are better for the child; but if the child cannot tolerate them, what can I do?"

To summarize, the Ukrainian women who introduced formula did so out of "necessity" rather than "convenience" and even tended to view formula with a certain degree of suspicion or distrust. The discourse stressing the convenience of formula was largely absent from Ukrainian interviews, even though some women discussed calculability, predictability, and control associated with formula. In contrast, Ukrainian women overwhelmingly deemed breastfeeding the most convenient method. Below I will consider these themes in greater detail.

In Ukraine, mothers did not conceive of formula as a more convenient method than breastfeeding. Both in the US and Ukrainian interviews, mothers had an opportunity to talk about formula when they spoke about their infant feeding plans (e.g., what they thought about infant feeding during pregnancy), the actual choices (what methods they used and why), and their overall evaluations of different methods (advantages and disadvantages of breast- and formula feeding). Whereas in the US, women would spontaneously start speaking about the convenience of formula, Ukrainian mothers never suggested that formula was convenient, even after my promptings. For example compare the following dialogues excerpted from a US and a Ukrainian interview:

> **Interviewer:** Now, we'll talk a little bit more generally about breastfeeding and formula feeding, more abstractly - maybe not about your personal experience, but what you think. You know, your opinion and things like that. Even though you didn't use formula that much, still, you probably have some opinion on what advantages the formula has and what you just think of formula in general.
>
> **Interviewee:** Well, you know, my basic opinion is formula is not a bad thing. It's perfectly acceptable. I think the kids still get the vitamins and necessary nutrients out of it. It's very convenient. My partner could have fed him more if I had bottle-fed. It's a lot more easy to go places and have it ready for other people to feed him. Whereas, I have to pump and make breastmilk. So it's not quite as easy for me to be - I mean, I can feed easily on breastfeeding. But I think formula allows a lot more people to have

> that luxury to come in and deal with the feeding because you pretty much just fill up a bottle and go. (Oliver, Atlanta mom)

Compare to the following dialogue from a Ukrainian interview:

> **Interviewer:** You have experience of both breast- and bottle feeding. What advantages does each method have? If you could compare each method just in general…
>
> **Interviewee:** You mean when breastmilk is of a good quality, do you? When the mom has breastmilk and it is nutritious, right? Not like I had – water, I squeeze and it's just water, water, water, water, water, water, and then only in the end a little bit of milk. Well, you could see it's even a different color… So when the mom has good milk, like at the very beginning, right? First couple of months [after giving birth] when it's full of fat and nutritious, then the advantage is that the child is well fed, that's all. I mean, she eats and sleeps, she sleeps calmly. But when someone has like I do - I compare to myself – like I have for the third or fourth month almost water, water and only then milk, then the advantage of formula is that she can be full, because with my milk she can only quench her thirst, but she then gets full on formula. So.
>
> **Interviewer:** And from the mom's point of view? What's better for the mom?
>
> **Interviewee:** Of course, breastfeeding. You don't have to get up in the middle of the night, wash and sterilize the bottles… She wakes up hungry, starts turning, cries. I get up, go to the kitchen, while my husband holds her and tries to calm her down. But if I were [breastfeeding], I could simply whip out my breast and continue sleeping… That's during the night, right? But even during the day, when you go anywhere, like to someone's house. That's very convenient when you can simply give her the breast. Whereas now when we go out, we take along all these bottles, jars… (Zina, Kiev mom)

Like Zina, nineteen other mothers in Kiev discussed breastfeeding as a "convenient' method, while the other ten mothers did not bring up the issue of convenience in relation to infant feeding at all. Typically, Ukrainian mothers argued that breastmilk is more convenient than formula because it does not involve bottle washing and sterilizing and as a consequence is easier to feed, especially during the night; it is

always available and therefore easier to provide outside the home; it is always the right temperature and sterile. Here is how Nadia put it:

> No, for me it is much easier to breastfeed than to think that I need to mix something, to warm it up during the night. No, truly, it is easier to whip out my breast. Anytime, anywhere I can whip out my breast and feed her. If I could breastfeed exclusively until she is three, I'd stay home with her and have no problem with that. It is extremely convenient. I mean, I know that the child is well-fed and we can go anywhere to anybody's place. The food is always there. (Nadia)

In contrast, no Ukrainian mother argued that formula feeding is more convenient than breastfeeding, even though mothers discussed predictability, calculability, and control associated with formula. Mentioned by ten mothers, the theme of control was the most prominent. Even though most of these women argued that breastfeeding is more convenient than formula, they still admitted that an advantage of formula was that it allowed the mother more mobility as other caregivers could feed the child. A quote by Dasha exemplifies this:

> Advantages of formula? Well, if I am away my mom could feed her. I think that's an advantage. But then again [it's different] if you have gotten frozen breastmilk, you've gotten supply… I came to the conclusion that you must have a supply in your freezer, but I didn't think, I didn't know that you could freeze [breastmilk]. I mean if you've gotten a supply of frozen breastmilk, then it's no problem at all. Then I don't understand at all [why formula has an advantage]. (Dasha)

Another theme related to control was that formula gives mothers better control of their bodies by allowing them greater freedom to eat what they wish, whereas with breastfeeding they must watch their diets, avoiding foods that might provoke colic or allergic reactions in their babies.

> Probably, the advantages [of formula] are mostly for the mom, let me put it this way. First, when the mom is discharged from hospital, there are many taboos for her. She cannot have spicy food, tomatoes, oranges, chocolate, coffee. So in practice for the mom it can be hard finding what

> she can eat. I mean, she can eat only a few things, which can be hard for her. And an advantage of formula is that the mom can indulge in any food, or even on her birthday she will not be afraid to have a little bit of wine. But other than that there are no advantages. (Julia)

The theme of calculability also emerged in my Ukrainian interviews. For example, Nadia pointed out that formula can be mixed up in large quantities, whereas the supplies of breastmilk can be limited:

> The advantages of formula… it can be made in any quantities, larger than the breastmilk [supply], because towards the end the breastmilk was not enough. So I could mix up more formula. (Nadia)

Another mother, Galina, explained that the advantage of formula was that she could see the exact amount consumed by her baby:

> With formula, I could actually see how much he was having, whether he had what I gave him, like 120, 130, 140 grams. So I can see how much he ate and I know that he is not hungry. Whereas with breastmilk I do not know how much he drank. Even if I could weigh him, I still wouldn't know. (Galina)

Finally, one mother mentioned predictability of formula when she said that inadequacies of her diet might affect the quality of her breastmilk, whereas formula has a known quality and is free from health hazards.

> It seems to me one great advantage [of formula] is that the child can have it without being exposed to anything bad for her health. Because I think that with my breastmilk she was getting a lot of unhealthy stuff. Well, where it was more advisable for me to eat just one piece of something unhealthy, I would eat three. And I think it could have affected her stomach. Although on the other hand, they write everywhere that mothers' diet does not have such a strong impact… But still if you breastfeed you have to very much watch what you eat. (Angela)

Summary

To conclude, due to their prior commitment to breastfeeding, most women in both Kiev and Atlanta explained their introduction of formula as a necessity due to medical

recommendations, troubles with latching on, insufficient breastmilk quantity or poor quality, or mothers' return to paid employment. As predicted by the McDonaldization hypothesis (Rq1), the themes of efficiency, predictability, calculability and control were found in the discourses of both Ukrainian and the US mothers, but with important cultural differences.

Due to their overall cultural preference for breastfeeding and their suspicious attitude toward formula as artificial food or "chemistry," Ukrainian women did not choose formula feeding solely for convenience. Moreover, Ukrainian mothers did not consider formula a "convenient" method of infant feeding in the first place; most of them felt that breastfeeding was easier. Nevertheless, when asked to point out possible advantages of formula, some Ukrainian mothers noted different aspects of predictability, calculability, and control, even though they believed that breastfeeding was a more convenient method.

As predicted by my second McDonaldization hypothesis (Rq2), the criteria of convenience, efficiency, predictability, calculability, and control were more prevalent in the discourse of US mothers. Six US mothers introduced formula out of convenience, based on its greater efficiency, predictability, or control, and most US mothers believed that formula feeding is as convenient as or even more convenient than breastfeeding.

On the one hand, these findings confirm the prediction made by the McDonaldization hypothesis: efficiency criteria do matter in women's thinking about infant feeding. In increasingly rationalized, fast-paced societies feeding with formula might appear an easy and convenient solution for busy mothers who are constantly "on the go." However, the story is not that simple. First of all, my findings suggest that the

notion of "convenience" is itself socially constructed and varies across cultures. Infant feeding is not as easily McDonaldized in Ukraine due to deeply institutionalized cultural beliefs about the desirability and convenience of breastfeeding. Second, even though women use efficiency criteria to evaluate different infant feeding methods, these criteria are not necessarily decisive in making infant feeding choices. This is especially remarkable in the case of the US. Though formula feeding has long been institutionalized in the US and women still feel that formula is "the culture," very often mothers still choose breastfeeding, even despite personal aversion or the belief that formula is more socially acceptable, convenient, efficient, or predictable. In my view, one of the reasons they do so is the development and propagation of world-cultural scripts that promote breastfeeding.

Supplementary Foods: Home-Made or McDonaldized?

The themes of efficiency, predictability, and control also applied to women's discourse about supplementary foods. The issue mothers face regarding supplementation is whether to rely on store-bought or home-made baby foods. The impact of McDonaldization is perhaps even more apparent when applied to this issue. Whereas preparing baby food at home (pureeing vegetables and meats, or grinding cereals and making porridge), is a time-consuming and labor-intensive process, reaching for a store-bought baby jar or instant cereal is a convenient and efficient solution for busy mothers. In addition, commercially produced baby foods have greater calculability, as their labels indicate the exact amounts of nutrients that they contain.

As predicted by hypothesis Rq1, McDonaldization themes were found in the discourse on baby foods of both US and Ukrainian women, but with noteworthy cultural differences. In Ukraine, where commercially prepared baby foods are a relatively recent development brought about by globalization, most women still took home-made baby foods for granted, but those few who chose to use store-bought foods made a conscious choice based on efficiency criteria. In the US, with its greater degree of rationalization and its longer history of commercial baby foods, some women in my sample viewed store-bought baby food as a taken-for-granted option. The conscious decision to use commercially prepared foods based on efficiency criteria was relevant in those eleven cases (36%) when women occasionally prepared (or considered to prepare) home-made baby foods.

Ukrainian Case

In my Ukrainian sample, by the time of the interview eight women had not introduced supplements because their children were younger than six months of age. Out of the twenty-two mothers who used supplementary foods, only two relied mostly on store-bought baby food jars and instant cereals; six made sporadic use of these items; five used instant cereals but cooked their own fruits and vegetables at home; four others indicated that they used only home-made supplements but would use baby food jars in the winter; and five women relied mostly on home-made supplementary foods. I will next consider the reasons behind their choices.

The first point to be noted is that commercially produced baby foods, such as pureed fruits, vegetables, meats, and instant cereals, were not widespread in the Soviet

Ukraine (interviews with Ukrainian pediatricians). Traditionally, the bulk of supplementary baby foods was prepared by women at home. The impact of the Ukrainian cultural context can be seen in the fact that many women I interviewed still took for granted home-made supplements. Also, this traditional model often was reinforced by infants' grandmothers who, as discussed above, were active participants in many infant feeding decisions. Consider, for example, this story related by Julia:

> My mom, she can scream at me if I made vegetable soup, fed some to the baby, refrigerated another half and then warmed it up in the microwave in the evening and pureed it with a blender. She gets very mad: "Your child is under one, and you warm up the refrigerated food for him, and even in the microwave. But everything needs to be freshly made on the stove!" And we get into arguments over it. I say, "Mom, what will happen if his food stays three hours in the fridge?" [She answers] "No, everything needs to be fresh from the stove. You feed your child with some junk." That's how we argue. (Julia)

Like the discourse on bottle feeding, some Ukrainian mothers, especially those with connections to the countryside, expressed concerns that jarred baby foods and instant cereals may be a form of "chemistry" and are thus inferior to "naturprodukty" (natural products). Here is the explanation given by Arina, the mother of an eight-month old boy.

> **Interviewee.** No, I try not to buy him jarred baby food. It only happened several times. Once it happened when baby jars were all he ate the whole day, that's probably because he was teething and refused other food. All he could eat were baby jars. But I try not to give them to him. I only buy him baby juices because he doesn't like fresh-squeezed.
>
> **Interviewer**. And why do you try not to give him jarred baby food? Because it is more expensive?
>
> **Interviewee.** No, because of preservatives. I'd rather give him something fresh. Less chemistry.

Nevertheless, eleven mothers in my sample used jarred baby foods or instant cereals, even if only sporadically, and four others indicated that they planned to do so in

the future. Whereas none of the Ukrainian women introduced formula out of convenience, efficiency and convenience criteria were the major reasons behind mothers' choices to use baby jars and instant cereals.

The themes of convenience and efficiency were especially prominent as applied to instant cereals. The conventional preparation method would be to grind regular oatmeal, buckwheat, rice, cream of wheat, or corn grits in a coffee grinder, boiling the resulting flour in water or milk. This is a time-consuming process and many women saw instant cereals as a more convenient and efficient alternative, even if somewhat inferior health-wise. This sentiment was well expressed by Inna:

> Sometimes I buy instant baby cereals. But honestly I am not sure that it's a good thing to do, I don't know. Sometimes, when you don't have time, it's just more convenient, you can quickly make them. But all veggies I cook myself. I buy baby jars very rarely. (Inna)

Another mother, Ksenia, noted the greater calculability associated with instant cereals. She explained that she prefers everything natural and likes making baby food herself. The only possible exception is instant baby cereals, due to the fact that, in contrast to conventional cereals, they have a well-balanced (and known) vitamin content.

> The only advantage of the instant cereals by these commercial producers… is that they have everything balanced. They have the vitamin content, polyvitamins, microelements, everything, it's balanced nutrition, you may say. Of course, when I make hot cereals at home I cannot add vitamins there. So that's what I like so much about this; therefore, I think we are going to eat these (instant) cereals, because everything is balanced there, the vitamins and everything. (Ksenia)

Explanations for the introduction of jarred baby foods, on the other hand, had more nuance. As noted above, only two women in my sample relied mostly on store-bought baby food jars rather than home-made. Most of the others who had ever bought baby jars used them episodically and only particular kinds of jarred foods, or under

special circumstances. For example, some mothers used only jarred pureed meets, while others used baby jars only for travel or in winter. But again, the main reasons for the introduction of these foods were convenience, efficiency, and predictability.

Predictability was one of the most prominent themes associated with baby jars due to a specific feature of the Ukrainian context. Ukraine does not have a certification process that designates produce as "organic" so the consumer does not have a straightforward way of distinguishing conventional from organic foods. Many mothers I spoke with were concerned about possible pesticides, nitrates, and other chemicals in the fruits and vegetables they buy in the supermarkets and at farmers' markets. On the other hand, many jarred baby foods sold in Ukraine, especially those of foreign producers, bear labels stating that they are either organic or do not contain pesticides and other contaminants. Therefore, a widespread view was that, while home-cooked fruits, vegetables, and meats may be unpredictable in terms of possible contaminants, the jarred baby foods are guaranteed to be free of dangerous chemicals. This is how Anna explained why she relies mostly on jarred baby foods as a supplement for her nine-month old son.

> Therefore I use baby jars. Because you cannot buy these industrially-grown chickens, you cannot do this under any circumstances; they raise them there for a week, stuffing them with no one knows what, and then they kill them. They are not good even for the adults, even I know that and don't eat them… And then about fruits we also had an argument [with other mothers in the neighborhood]. They say: "Can't you buy apples and puree them yourself, why do you buy jars?" But I say: "Do you even know where these apples come from and what chemicals were used on them?" (Anna)

Another special feature of the Ukrainian context affecting views of jarred foods is that of *dacha.* Dacha is a deeply ingrained institution inherited from the Soviet Union, where it was common for urban inhabitants to have summerhouses (usually without heat

or running water) in the countryside. Many women I interviewed noted that, to avoid chemicals in store-bought produce, they make supplementary foods from fruits and vegetables they or their relatives grow on dacha plots. This option is available mainly in the summer and fall; few people can produce and store dacha foods to last through the winter. Therefore, some mothers who cooked dacha-grown supplementary foods said that in winter they would use jarred baby foods as a more predictable option. Consider the following explanation by Zina:

> As long as we have our own fruit, which does not have any nitrates, like apples, pears, as long as we have our own, then I still can [cook supplementary foods], but then in winter when we will not have anything fresh left, then we'll buy more baby jars . . . But now it's the season, we can make everything ourselves. (Zina)

Other women, like Nina, noted that jars were a more convenient and efficient option for travel. Whereas they preferred not to use jarred foods as part of the regular diet, they saw them as a preferred option when on the go.

> In general, jars are good when you need to eat while traveling, when you go for a walk in the park, when you, say, had no time to cook anything, then you can like – ah! – have a jar. But I do not consider jars, such jarred foods, for everyday use when, in the morning baby eats instant cereals and a jar, then goes outside for a walk, then comes back and eats the same thing. It can only be in emergencies as such a life-saver, when you do not have time, when you are in a hurry or when you are on the go, you are not at home and cannot cook. (Nina)

Finally, some mothers said that jars were a more convenient and efficient option even for everyday use but only with respect to certain types of foods, such as meats or exotic fruits. One of the Kiev mothers, Alla, told me that, although she cooked all vegetables herself, she felt that it was too much work to make pureed meats at home. Jarred meats offered a more efficient use of her time.

> Well, meet, yes, meat, yes [I use jars]. Basically, I think that homemade meat can also be good, but first you need to make small portions, and it does not make sense to go through all this hassle for the sake of such a small piece… You'd have to cook it separately. So, it's easier just to take a baby jar, right? For example, you could save time and do something else, rather than cooking this small piece. (Alla)

In sum, the use of supplementary foods reveals the impact of both the Ukrainian cultural context and the processes of rationalization/McDonaldization involved in globalization. Consistent with Ukrainian tradition, mothers in Kiev demonstrated their overall preference for home-made supplementary foods. Despite that, thirteen mothers in my sample used jarred baby foods or instant cereals, invoking McDonaldized criteria of predictability, efficiency, or convenience.

The US Case

In the US, on the other hand, I found rather different patterns for decision-making about and use of supplements use. Among twenty-six mothers who had introduced supplements by the time of the interview, seven relied almost exclusively on store-bought jarred foods and instant cereals; another eleven mothers used mostly commercially prepared supplements but occasionally prepared their own, such as mashed bananas or avocadoes; and eight women relied mostly on home-made supplements.

In sharp contrast to Ukraine, many US mothers took store-bought baby foods for granted and did not seriously consider other options. For them, baby food in a jar was "the" food that babies eat. Here is a telling example from Francheska.

> Buying jars. I don't cook. I'm not even going to pretend. I don't even cook for myself. I didn't even - never even occurred to me to make my own, not only because I'm not much of a cook, but I've just always seen baby food and commercials for baby food and I just thought that's where you got baby food from. There's not as much obvious information about

> how to make baby food or products for pureeing or whatever. I wasn't even aware of that concept until later, talking to other moms, who would say, oh, I made blah, blah, blah, and I'd go, oh? Oh, you actually just really take an apple and mash it up instead of buying the jar? So yes, I bought everything pre-made. (Francheska)

On the other hand, some women said that they had intended to make supplementary foods at home but it never worked out, or only partially worked out, because of time or other constraints. For these women, jarred foods and instant cereals appeared to be a more convenient and efficient option. For example, a working mother, Oliver, told me that she had a discussion with her partner in which they considered pureeing supplementary foods at home but decided that it was more important to have free time in the evening to spend with the child and each other.

> You know, I wish - my friend that is a stay at home mom, if I was a stay at home mom, I would probably be pureeing his food and giving him stuff that we eat. But other than that, I feel a little guilty for giving him all store bought. But at the end of the day, I think it's just more important for me to have time to spend with him in the evening. (Oliver)

This theme was common among well-educated working mothers who, despite their original intention to make supplementary foods at home, found store-bought baby foods a more convenient and efficient option. This theme was well expressed by Madison, who is a working mother of a ten-month old son.

> I had every intention of making my own baby food, but that went out the window within the first two weeks of his life. And then so I tried starting with all organic stuff. And then sometimes when you go to the grocery store, they don't have that great of a selection of organic stuff, so I started to supplement him with non-organic stuff. So I had all these intentions to do everything as wholesome as possible. And then it kind of slipped into your average old pureed jarred baby food. (Madison)

Other women made compromises between their preference for home-made and the lack of time by buying some commercial foods and making some at home. Karol discovered

that mashing bananas and avocadoes was an easy option.

> The only thing I do myself is avocado and banana. Those are the only two things that I will introduce straight from the fruit, but everything else is ready-made. If I had the time, I still think I might do the ice cube tray and blender, but life is a little crazy, but my goal would be to make it myself and freeze it, so we might, within the next month, be moving to get that done. That would be my preference, just to make it myself so I know what the heck is in it. (Karol)

Summary

My findings in this section confirm hypotheses Rq1, Rq2, and MA1. Albeit with important cultural differences, McDonaldized criteria could be found in the discourse about supplementary foods in both the US and Ukrainian samples – but they were more prevalent in the US. Commercially prepared infant food supplements have been so firmly institutionalized in the US that in many cases they are a taken-for-granted option so the McDonaldized criteria are not actually relevant to rationalized decision-making as such. On the other hand, my findings suggest that this situation is starting to change as mothers become increasingly aware of the health benefits of home-made, less processed, or organic supplements. However, in cases in which women made conscious choices about supplementary foods, McDonaldized criteria proved to be important. In contrast to the breastfeeding/bottle feeding dilemma, about which most women made choices based on health rather than efficiency criteria, efficiency considerations were equally or more important than other factors for decisions about baby food supplements.

In Ukraine, home-made baby food supplements were taken for granted while commercially prepared baby foods were perceived with a degree of suspicion. Only two women in my sample relied mainly on commercial baby foods. However, most other women found it acceptable to use certain types of commercial baby foods, such as instant

cereals or jarred meats, or to use such foods under specific circumstances, particularly when traveling or in the winter. In these cases, women's decisions to use commercial foods were based, as predicted, on McDonaldized criteria. Again, this finding departs sharply from the breastfeeding/bottle feeding results, as none of the Ukrainian mothers chose bottle feeding based on efficiency criteria.

Conclusions

In this chapter I have considered how mothers' infant feeding decisions and practices are affected by rationalization/McDonaldization processes of globalization in conjunction with local socio-cultural contexts. My findings generally confirm the rationalization hypotheses but more for the US, and cultural differences are marked.

In Ukraine, where breastfeeding with early supplementation has long been a dominant method of infant feeding, mothers in my sample took breastfeeding for granted and did not apply McDonaldized criteria to their primary infant feeding decisions. Although they were cognizant of the presumably greater efficiency, predictability, calculability, and control associated with formula, none of them introduced formula based on these criteria. Formula was used only out of "necessity," as a "last resort" because breastfeeding did not work.

My findings also suggest that the process of McDonaldization has a cultural component; what is considered "convenient" is culturally variable. In Ukraine, and counter to the McDonaldization hypothesis and the situation in the US, most mothers considered breastfeeding to be more convenient than formula feeding. On the other hand, McDonaldization processes more clearly influenced Ukrainian mothers' decisions to

introduce supplements, as in many cases women chose to use commercially-prepared foods based on their convenience, efficiency, or predictability.

In the US, where a "culture of formula" has long been in place, women's decisions about breastfeeding vs. bottle feeding were usually based on rational decision-making. However, even though women deemed bottle feeding more convenient and efficient, all but one woman in the US sample chose to initiate breastfeeding, primarily due to health considerations. Still, McDonaldization was more influential in the US and some women eventually introduced formula based on efficiency criteria. Similar to Ukraine, McDonaldization factors were more influential with regard to decisions about supplementary foods rather than formula feeding.

In sum, these findings suggest that in Ukraine, where rationalization/McDonaldization has historically been less intensive but is now increasing through processes associated with globalization, rationalization criteria still have little impact regarding the preference for breastfeeding over bottle feeding but they matter appreciably with respect to supplementary foods. In the US, where rationalization/McDonaldization is deeper and more ingrained, infant feeding decisions are less affected by convenience and efficiency criteria than expected, especially in relation to breast vs. formula feeding. The weak impact of rationalization in Ukraine can be partially explained by the Ukrainian context, but there must be more to the story because McDonaldization effects on decisions about supplementary foods are substantial. In the next chapter I show that a key factor explaining why McDonaldization has a weaker grip on primary infant feeding decisions in Ukraine is the complex of world-cultural scripts promoting breastfeeding.

CHAPTER 7

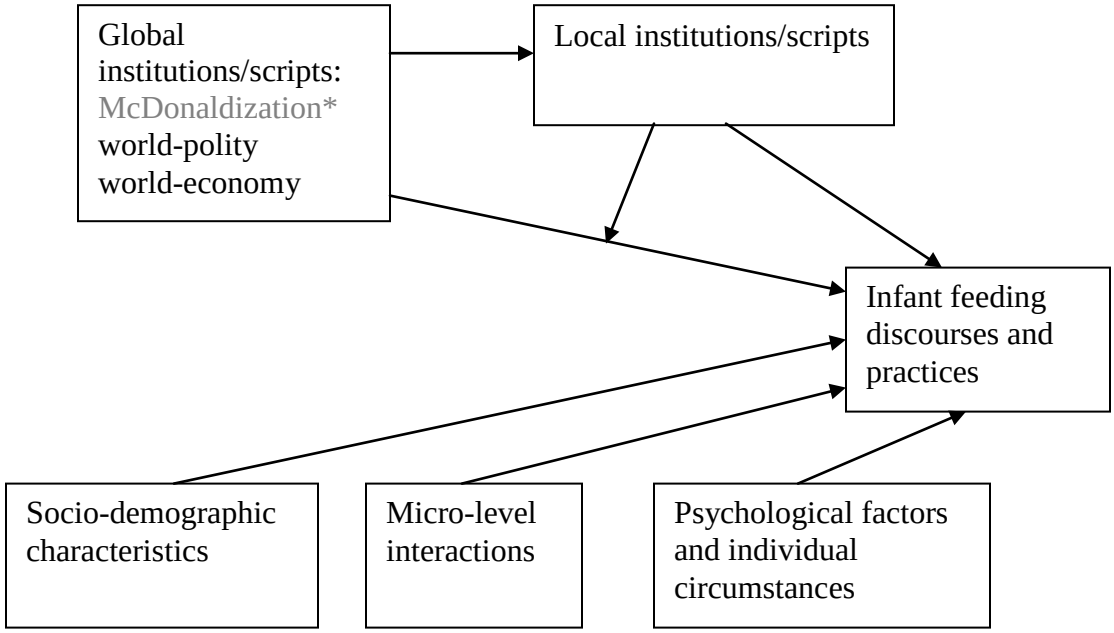
BETWEEN SCYLLA AND CHARYBDIS: GLOBAL PROCESSES, LOCAL CONTEXTS AND MICRO-LEVEL INTERACTIONS

In Chapter 6, I began considering how global processes influence individual decision-making by analyzing the impact of rationalization/McDonaldization. I showed that in both the US and Ukraine, mothers were cognizant, and often appreciative, of the increased predictability, calculability, efficiency, and control associated with the use of infant formula and commercially produced baby foods and instant cereals. However, efficiency criteria did not prove to be decisive in the choice between breastfeeding and formula feeding. Even in the US, with its greater degree of rationalization, most women did not choose to introduce formula out of convenience, despite their personal preference for efficiency, predictability, and so on. The choice between home-made and commercially prepared baby foods differed substantially, though, with women in both countries more readily relying on efficiency criteria in their decisions and many of them choosing commercial foods due to their greater convenience. These results suggest that McDonaldization is a powerful factor but it has its limits. Infant feeding decisions are complex, affected by individual circumstances, micro-level interactions, and cultural contexts (Blau et al. 1996; McKinley and Shibley 2004; Riordan and Auerbach 1998).

In this chapter, I consider the impact of global factors stemming from the world polity and world-system. I complicate these analyses by examining how the effects of

global factors are mediated by micro-level interactions and women's personal circumstances (Figure 5 below).

Figure 5. Factors Affecting Individual Infant-Feeding Decisions and Discourses



***** *Factors pertaining to McDonaldization were considered in Chapter 6*

As in Chapter 6, I discuss my findings both in relation to my theory-driven hypotheses and inductively, based on themes emerging from the interviews according to the grounded theory approach (Strauss and Corbin 1990). First I briefly review predictions made by world-polity and world-system theories.

World-polity theory predicts that individual caretakers in both the US and Ukraine will invoke world-cultural scripts on infant feeding produced by INGOs and IGOs promoting breastfeeding – e.g., WHO/UNICEF recommendations on infant feeding, particularly exclusive breastfeeding, or scripts describing breastfeeding as the best or most natural method of infant feeding. World-polity theory also predicts that

individual caretakers will explain their infant feeding decisions (breast- or bottle feeding) in terms of individual needs, rights, well-being, and personalities. For example, a mother might say that she chose bottle feeding because she felt that it better fits her personality and active life style; or she may explain her choice of breastfeeding because it is the best for her baby. Further, identity construction will be one of the key mechanisms of world-cultural impact; the specific processes involved here were uncovered using the grounded theory approach. Based on these predictions, I have the following qualitative hypotheses:

Hypothesis WPq1. World-cultural scripts will be prevalent in the discourse on infant feeding of both Ukrainian and US mothers.

Hypothesis WPq2. World-cultural scripts by INGOs and IGOs promoting breastfeeding and world-cultural scripts of individualism are likely to be most prevalent in the discourse of both US and Ukrainian mothers, but other world-cultural scripts may also matter.

Hypothesis WPq3. World-cultural scripts on infant feeding will affect mothers through the mechanism of identity construction.

World-system theory makes different predictions for caretakers in the core (USA) and periphery (Ukraine), as well as for caretakers from different social classes. Those caretakers in the core who select bottle feeding are likely to refer to criteria like convenience that are stressed in baby food advertisements. Caretakers in the core selecting breastfeeding are likely to draw on discourses of resistance promoted by the breastfeeding movement by, for example, discussing the immorality of transnational corporations that push their expensive products to replace free breastmilk. Meanwhile, caretakers in the periphery who choose formula are likely to refer not only to its

convenience, efficiency, etc., but also to its character as modern or technically advanced in contrast to the outdated practice of breastfeeding. Caretakers in the periphery selecting breastfeeding may explicitly construe it as an act of resistance to the Westernized practice of bottle feeding or simply draw on discourses of the breastfeeding movement, which portray baby food companies as profit-hungry villains. Thus, in both the US and Ukraine, promotional activities of baby food companies should have effects on infant feeding decisions. Finally, caretakers in both core and periphery may also use class discourse portraying their chosen practice (bottle feeding or breastfeeding) as superior to or different from infant feeding practices of people from other classes. The specific hypotheses based on world-system theory are thus:

Hypothesis WSq1. Both in the US and Ukraine, mothers' discourses reflecting the dominant culture of commodification/consumerism (criteria promoted by baby food companies) or the culture of resistance (criteria promoted by the breastfeeding advocacy movement) are likely to be most prevalent discourses associated with impact of factors stemming from the world-system.

Hypothesis WSq2. In Ukraine, the prevalent discourse on infant feeding is also likely to reflect the influence of Western cultural imperialism (bottle feeding as a modern thing to do) or resistance to Westernization (e.g., breastfeeding as a way to resist Westernized practice of bottle feeding).

Hypothesis WSq3. Both in the US and Ukraine, mothers will contrast their infant feeding practice with practices of mothers from other classes.

Finally, as in Chapter 6, from macro-anthropological theory of globalization I assume that the impact of global factors is mediated by the unique socio-cultural contexts

of the US and Ukraine. These context-specific effects emerged using the grounded theory approach.

> *Hypothesis MA1*. Caretakers' infant feeding decisions and discourse will show country-specific differences that reflect differences between the US and Ukrainian socio-cultural contexts. These differences will mediate the various effects of global cultural factors.

TRADITION ENCOUNTERS UNICEF: WORLD-POLITY PROCESSES AND LOCAL CONTEXTS

In this section, I consider the impact on infant feeding decisions and practices of world-cultural scripts. As the world-polity theory hypotheses predicted, I found world-cultural scripts in the infant feeding discourse of both US and Ukrainian mothers, but with important differences stemming from the different socio-cultural contexts. In Ukraine, where breastfeeding has been the norm, the major decision that mothers make concerns when to introduce supplementary foods and liquids. Correspondingly, these mothers most often referred to world-cultural scripts promoting the exclusive breastfeeding of infants up to six months of age, while often referring to the "propaganda" of breastfeeding. I also found that the impact of these scripts in Ukraine was mediated by micro-level interactions. On the other hand, for US mothers the most significant choice issue is whether or not to breastfeed and for how long. Thus, in their discourse, they drew on world-cultural scripts sacralizing children and promoting breastfeeding and exclusive breastfeeding. With the US having a relatively high level of

individualism, these world-cultural scripts were not significantly mediated by micro-level interactions.

Ukrainian Case

World-Polity Processes and the Local Dilemmas of Choice

In line with world-polity hypotheses WPq1 and WPq2, I found that Ukrainian mothers invoke world-cultural scripts promoting breastfeeding, or what they called the propaganda of breastfeeding, regarding exclusive breastfeeding until six months of age. The hypothesis WPq2 is, however, partially supported since mothers did not invoke the script of the sacralization of individual. As discussed in Chapter 6, the Ukrainian mothers did not "choose" breastfeeding because it was best for the child; neither did they "choose" formula feeding on the grounds that it was best for the mother. Instead, they simply initiated breastfeeding because it was taken for granted, the "natural" thing to do. Similarly, these mothers introduced formula not out of personal choice but only out of necessity when breastfeeding was not a viable option. Perhaps the script of the sacralization of the individual is not relevant to this specific decision-making context, but its absence probably reflects the relatively low degree of individualism in the general socio-cultural context of Ukraine.

Among the world-polity scripts widespread in the discourse of Ukrainian mothers was reference to the "propaganda" of breastfeeding[44]. As discussed in Chapters 2 and 5, since the late 1970s many IGOs and INGOs have worked with governments to set up national programs promoting breastfeeding. The Innocenti Declaration of 1990 called on

[44] In Ukraine, the term "propaganda" does not have an assumed negative connotation. Since the Ukrainian word "propaganda" sounds exactly the same as it does in English, I kept this term, noting that mothers used it in a positive way, meaning "promotion" of breastfeeding.

all governments to adopt ICMBS, issue effective maternity legislation, establish national breastfeeding committees, and promote exclusive breastfeeding up to 4-6 months of age. By 1997, Ukraine had in place a national breastfeeding committee, a national breastfeeding coordinator, and a national breastfeeding policy (WHO and UNICEF 1999). Also, Ukraine responded to the WHO/UNICEF Baby-Friendly Hospital Initiative promoting breastfeeding through hospitals and maternity wards. By 2009, some 220 Ukrainian healthcare facilities were accredited as "Baby Friendly" (UNICEF 2010a). In addition, the world-cultural scripts promoting breastfeeding penetrated popular parenting magazines and childcare books sold in Ukraine (see Chapter 5 for details). For example, between the years 2006-2009, the Ukrainian parenting magazine *Moi Rebenok*[45] mentioned WHO/UNICEF breastfeeding recommendations thirty-four times.

Many women in my Ukrainian sample noted that they felt that breastfeeding promotion as "propaganda" was "everywhere." For example, when asked why she initiated breastfeeding, Kira explained that "propaganda" was an important factor:

> Well, first of all, now there is propaganda in this direction. If our parents were formula feeding, now the doctors and all the magazines, all [magazine] articles, everything concerning infant feeding is promoting breastfeeding. (Kira)

Some mothers, like Zoja, described the effects of "propaganda" in popular parenting magazines and infant care books.

> Well, but now even [parenting] magazines call on all the moms to breastfeed, breastfeed, breastfeed. You see, now there are even special T-shirts, cover-ups so that you can breastfeed when outside. They all argue that, moms, breastfeed; if you are uncomfortable breastfeeding in public, just cover up and breastfeed anyway. (Zoja)

[45] In English, *Moi Rebenok* means "my child"

Other women discussed “propaganda” for breastfeeding in the hospitals and maternity wards.

> Propaganda about the advantages of breastfeeding as compared to formula feeding is everywhere now. They even have it in maternity wards. That’s why now babies stay with their moms right after being born, so that the women can establish breastfeeding. Before, in our mothers’ time, they took away their babies, right? [In maternity wards] babies were brought to moms at feeding time. This is not what happens now. Now you stay together with your baby in order to establish lactation. (Alexandra)

Anna, the mother of a nine-month old boy, noted that she felt that this “propaganda” had its source at the global level. When I asked her whether she knew any organizations that promoted breastfeeding, she answered:

> The whole time, I’ve seen that in all the magazines they have articles with such high-minded words about breastfeeding and I understood that this idea originates somewhere at the world level. And I also understood that if they write in formula advertisements that breastfeeding is better, that’s mandatory, because it’s not in their interests, and I understood that they have no other choice because this idea [about breastfeeding] is the most important. But I do not know anything about the organizations [that promote breastfeeding]. (Anna)

In her discussion of the international roots of the breastfeeding “propaganda,” another mother, Alexandra, was even more specific, naming the Baby-Friendly Hospital Initiative by WHO/UNICEF.

> I think there exists some program connected to UNICEF. I did not really look into it, but I think they have some rules about how to establish lactation. And those maternity wards that abide by those rules, they are designated “Baby Friendly.” There is such a thing, right? And they even post those rules on the wall -- that the baby should stay with her mom, and that medical personnel should help women establishing lactation, they should show how to latch on, and so forth. (Alexandra)

Thus, the Ukrainian mothers were well aware of the advantages of breastfeeding highlighted by world-cultural scripts -- i.e., providing best nutrition; aiding the development of the baby’s immune system; reducing the risk for some diseases, such as

certain cancers or obesity; improving cognitive development; providing psychological benefits and bonding; yielding economic benefits to the family (e.g., IBFAN 2010; WHO 2010). When asked which advantages breastfeeding had, most Ukrainian mothers cited at least several of those listed here. Thus, Tania replied: “Breastmilk, when you breastfeed, it reduces the risk of cancer, right? But in general I am all for breastfeeding, let me put it this way. It also gives your child immunity, doesn’t it?”

In sum, breastfeeding “propaganda” was a widespread world-cultural script in my Ukrainian interviews. Under the impact of international initiatives promoting breastfeeding, and especially programs by WHO/UNICEF, the Ukrainian government initiated nation-wide promotion of breastfeeding and most mothers interviewed in Kiev felt the effects of these efforts. Some could even trace this propaganda to its international origin. This cultural script, however, was not connected to any major dilemmas about choice, since most mothers in my Ukrainian sample took breastfeeding for granted and did not need any prompting by WHO/UNICEF. If anything, this world-cultural script simply reinforced the Ukrainian cultural preference for breastfeeding.

In contrast, another world-cultural script promoting exclusive breastfeeding of infants up to six months of age provoked conflict and about explicit decision-making in the Kiev mothers. For most women the toughest choice was not between breastmilk and formula but between exclusive breastfeeding and breastfeeding with the early introduction of supplementary foods. Most of the mothers were exposed to both world-cultural scripts calling for exclusive breastfeeding up to six months of age and the traditional Ukrainian model prescribing early introduction of supplementary foods. Consider the following excerpt from my interview with Anna:

> You know, there are so many people who constantly give me [unsolicited] advice, who tell me that I do everything incorrectly… I have a friend who feeds her child the way her grandma would. She scolds me: "What on earth are you doing? We used to give egg yolks at two months, why don't you?" But it is now recommended differently, so I do not listen to her, but she is very disapproving of me, and she complains to my mom: "She does everything wrong!" There are lots of people like that, but I do not listen to them. In the evening, I sit down with a book and I read, and read and read, and I tell my husband: "Seriozha! Why do they give me all this advice [to introduce supplementary foods]? It's written clearly here – no supplementary foods before six or seven months of age!" (Anna)

Anna was thus exposed to the world-cultural model of exclusive breastfeeding through her reading of infant-care books, whereas the traditional Ukrainian model was urged on her by her friend and her mother.

Parenting magazines are another important source through which mothers in my Ukrainian sample learned the new model of exclusive breastfeeding. All of the women I interviewed read at least one of the three popular parenting magazines: *Tvoi Malysh, Moi Rebenok,* and *Khoroshije Roditeli.* In the total of fifty-eight issues I analyzed of *Moi Rebenok* (2006-2009) and *Tvoi Malysh* (2008-2009), I counted forty-one references to WHO/UNICEF in relation to breastfeeding. Ukrainian mothers discussed how the magazines promoted new principles of infant feeding that differed from those upheld by the "older generation." Here, for example, is another Ukrainian mother, Nina, telling how she referred to WHO recommendations in parenting magazines to counteract her and her husband's mothers' attempts to introduce supplements before six months of age:

> Grandmothers tried to offer her [supplements to the baby] – not so much my mom, my mom tried to be neutral – but my husband's mom tried to suggest that she was too thin and had to be supplemented. Like all infants who are large at birth, she was not gaining weight well and she is probably not very fleshy by nature. So [my mother-in-law] says: "She is so thin, we need to supplement her!" She brought me a book that she used with her own children, which, you know, recommends supplementing four-month olds with porridge, and three-month olds with juice and egg yolks… But

> everyone says that supplements should be introduced after six months of age… I do not know why everyone says so. Most likely, because everywhere there are those recommendations by the Ministry of Health and then also you know this World Health Organization or something like that, these recommendations by WHO. These recommendations [are] in parenting magazines… so we also have proof where it is written that supplements are introduced after six months, plus there is a list of other conditions – if the child has teeth and shows interest in grown-up food, etc. So we even had an argument with our grandmothers; her grandmother says that twenty years ago they did not have such recommendations, it was different, but I say: "Well yes, maybe in twenty years it will be different again, but now it is so." (Nina)

The Internet emerged as another source of information.Twenty-one out of thirty women in my Ukrainian sample used the Internet to find information on infant care, including infant feeding or exclusive breastfeeding. For example, Nadia, who used exclusive breastfeeding with her daughter, described how she referred to the information from the Internet in arguments with her mother-in-law, who promoted the early introduction of water and other supplements.

> Yes, I was [criticized] by my mother-in-law, who said: "Why don't you give her water? It's time to start her on soups," something like that… before six months old. But I was really firm, I said no [supplements] until six months old, referring her to the Internet sites. (Nadia)

In addition, the model of exclusive breastfeeding is disseminated by the medical profession. After Ukraine started the program of breastfeeding support by a President's Decree in 1996, the Ministry of Health changed its recommendations on infant feeding, aligning them with recommendations by WHO/UNICEF. Thus, advice from pediatricians is another route through which the world-cultural script of exclusive breastfeeding can reach Ukrainian mothers. For example, when I asked Liuba, the mother of a three-month old girl, how she learned about exclusive breastfeeding, she answered:

> From pediatricians, also parenting magazines. When I was still pregnant, I started buying various [parenting] magazines and, generally, everywhere

> they write that the supplementary foods should be started at six months; even though our grandmothers insist that we should give mashed egg yolks, apple juice, and something else, even something like meat, but we stubbornly refuse all of that. (Liuba)

In sum, these quotes show the conflicting requirements of different models. On the one hand, Ukrainian mothers were exposed to world-cultural scripts promoting exclusive breastfeeding through at least one of the following sources: baby-care books, Internet sites,[46] Ukrainian parenting magazines, and pediatricians. On the other hand, the interviewees were fully exposed to the traditional Ukrainian model, favoring early supplementation, through social pressures from older relatives (especially mothers) and friends. I next discuss how, in the presence of these competing local and global cultural scripts, the mothers' infant feeding decisions and discourse were influenced by their personal circumstances and micro-level interactions.

World-Cultural Scripts and the Impact of Micro-Level Interactions

Under what conditions is the world-cultural script of exclusive breastfeeding constitutive of women's infant feeding decisions? Conversely, under what conditions do Ukrainian mothers followed the traditional model of early supplementation[47]. To answer these questions, I made cross-case comparisons, constructing partially-ordered meta matrices (see Chapter 3). My analysis shows the importance of micro-level interactions, women's personal circumstances, and socio-economic background.

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[46] For example, www.likar.info, www.roditeli.com.ua, www.mama.ru

[47] WHO recommends exclusive breastfeeding until six months of age, when infants should be introduced to supplementary foods and water. In this section, I consider when and why women chose to introduce supplementary foods and water. I will not consider their motivations behind the introduction of formula, which I discussed in Chapter 6.

First, it should be noted that out of thirty Ukrainian women, five were not aware of the new recommendations regarding exclusive breastfeeding.[48] One of these women had a two-week old baby so her lack of exposure perhaps could be explained by her status as a new mother; in addition, her pregnancy was not planned, she had her baby while still a student, and, admittedly, she had had no time to prepare for her new role as a mother.[49] The other four women lived in underprivileged neighborhoods in the city outskirts and came from low-income households. All four women were deeply involved in their neighborhoods – they knew many neighborhood mothers and had relatives and friends living nearby. For these women, relatives and friends were the main source of infant care information and advice and they simply took the traditional model of early supplementation for granted. For example, Oxana, who introduced her son to pureed fruits at three months, explained that four months was a good age to start him on egg yolks and other food supplements. She had learned from her aunt that twenty years ago babies were introduced to these foods at an even earlier age:

> Probably, I've heard about it from my aunt. When she had her children… that is twenty years ago, they fed egg yolks at two months, and so forth. Well, I haven't really tried that but I think I will introduce soups at four months, egg yolks, various cereals, so that gradually we'll be transitioning to normal human food. (Oxana)

The other twenty-five women in my Ukrainian sample had heard about exclusive breastfeeding. Ten of them were not able to follow these recommendations due to multiple reasons discussed below and introduced various food supplements between three

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[48] Of these five mothers, two introduced food supplements between three and four months of age; two had two-week old babies and planned to introduce food supplements, respectively, at two and four months (one of these was a first-time mother, the other was having her second child and planned to introduce supplements in the same way she did with her first child); one mother had a two-month old child and planned to introduce supplements at four months.

[49] At the time of the interview, this mother was using breastfeeding with water supplementation based on a pediatrician's recommendation.

and five months; one mother was doing exclusive breastfeeding at the time of the interview but planned to introduce water and bananas at four months, based on her pediatrician's recommendation; another mother introduced formula at two months but was planning to introduce food supplements at six months; nine women used almost exclusive breastfeeding, supplementing with water only; and four others used exclusive breastfeeding.[50] Given that these twenty-four women were exposed to world-cultural scripts promoting exclusive breastfeeding, the question is why some chose to introduce supplements early whereas others breastfed exclusively or almost exclusively. I will first consider a set of conditions that favored the Ukrainian model of early supplementation, starting with the story of Julia.

Julia is a stay-at-home mother of two young boys, a four-year old and a seven-month old. She lives with her husband in a small apartment, which they inherited from their parents, in a low-income neighborhood in the outskirts of Kiev. Julia had her first child when fresh out of college. At that time, Julia and her husband still lived with Julia's mother, who helping with childcare. Julia's mother, who grew up in the countryside, favored early introduction of supplements and Julia followed her advice, having introduced fruits and vegetables when her first son was two months of age:

> With my first child, we used to live with my parents and I always did as my mother told me… My mom's advice – let's try and give him potatoes today, let's give him soup today, let the baby be full. There is this old belief among the villagers that if the baby is chubby and eats well then he is healthy. So I just did what my mom told me. (Julia)

[50] At the time of my interviews, only ten Ukrainian women had infants younger than six months of age. Only three women were exclusively breastfeeding and five women almost exclusively breastfeeding at the time of my interviews. The data about the additional woman who used exclusive breastfeeding and four other mothers who used almost exclusive breastfeeding comes from women with children older than six months of age at the time of the interview and is based on their recollections about when they introduced certain foods and liquids to their infants.

By the time their second son was born, Julia and her husband lived in their own apartment but Julia remained dependent for babysitting on her mother, who lived nearby. Julia's husband, who was working two jobs to make ends meet, was rarely able to help her around the house and Julia was still receiving help from her mother with babysitting and housework. With her second son, Julia was again breastfeeding and introduced complementary foods, such as cereals and baked apples, early – at four months of age. Julia says that she knew about the recommendations for later introduction of supplements, probably from parenting magazines, but she was persuaded by advice given by her mother and she was also inclined to repeat what she had done with her first child.

In addition, Julia says she received advice about the early introduction of complementary foods from other mothers. Julia grew up in this neighborhood, knows many other local women with children, and sees them regularly when she takes walks with her sons.

> Usually, this happens on the playground. When I meet some girlfriend of mine, and our children are, say, two weeks different in age. She says: "Today I tried to give him soup I made – potatoes, carrots, cauliflower." So, you listen to that and then come home. You start thinking logically and reckon that you wouldn't give meat to a three-month old but cauliflower is considered to be hypoallergenic, so you may try that. So you make cauliflower and feed it, and everything's fine. So you get all these [ideas] from the street, from your girlfriends. (Julia)

Note that medical advice had relatively little impact on Julia's decision-making. Her child sees a pediatrician in a local state-financed "polyclinic," which provides medical services free of charge. When I asked Julia what her pediatrician recommended regarding the introduction of complementary foods, she replied that she neither trusted nor received much advice from her pediatrician.

> Well, where we live, our subdivision pediatricians[51] (*uchastkovyje)* who remain here are just old women. How should I say… they are not keeping up with their profession, well, they are not interested in anything. I mean they are just there, receive their salary, and they are not interested to know how you feed your baby. So, you come, they weigh him and they may ask: "Do you feed anything in addition to breastmilk?" And they write it down because they have to. But they are not really paying attention. (Julia)

Julia's story most forcefully exemplifies the four major themes found in the interviews with other mothers who knew about the recommendation of exclusive breastfeeding but introduced supplements early – pressures from their mothers and mothers-in-law, pressures from the larger community of mothers, the lack of advice or contradictory advice from pediatricians, as well as mothers' reliance on traditional wisdom and advice rather than parenting literature.

Many women explained that they knew about the new recommendations to breastfeed exclusively but were not able to do so because they were dependent on their mothers (e.g., financially or for childcare) and their mothers believed in the early introduction of supplementary foods. Elena, the mother of an eleven-month old girl, lives within walking distance of her mother and depends on her for childcare; from the first days of the girl's life her grandmother was actively involved in babysitting and, starting at eight months, Elena's mother took care of the child full-time when Elena went back to work. Elena, who introduced her daughter to complementary prune *kompot*[52] at four months of age, says that the early introduction of supplements was mostly due to her mother.

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[51] Ukraine has a system of state-financed public health-care institutions that provide free services. Outpatient healthcare services are provided by polyclinics, which have various medical specialists on staff, such as family doctors, ENTs, cardiologists, etc. Polyclinics serve the people in their area free of charge, but patients can see only those doctors who are assigned to the geographic subdivision (*uchastok*) where they reside.

[52] *Kompot* is clear fruit broth, prepared by boiling one or several kinds of fruit in sweetened water. *Kompot* is a popular type of home-made baby food in Ukraine.

> … when my mom started babysitting, she always wanted to give her something new to try, some new food. I used to tell her: "No, you may not." But with time, we have resolved this conflict, that is, we'd feed her something and the child would develop an allergy. So, when she'd see that the child breaks into hives, then she'd calm down and stop giving her foods. (Elena)

Discourse of this sort was widespread. Tellingly, all ten women who were exposed to world-cultural scripts on exclusive breastfeeding but introduced supplements between three and five months regularly engaged their mothers as babysitters; seven of them lived with their mothers.

Another source of pressure for the traditional model came from the larger community of mothers. Many of the women I interviewed lived in the same part of town where they grew up and thus were deeply embedded in the community. It emerged from the interviews that, according to local cultural beliefs that are widespread in Kiev, infants should spend a lot of time outside. All the women in my sample, even those engaged in paid employment, said that they usually go for walks with their children at least once a day for not less than an hour. Being outside is part of the daily routine. Moreover, many women told me that they try to meet with other mothers when they go outside, so daily communication with other mothers is also part of the routine. While women walk outside with their strollers they regularly discuss their concerns regarding infant health, care, and feeding. Thus, numerous mothers said that other women in their community were the source of pressure for the early introduction of supplementary foods. For example, Inna, mother of three children, told me that it was harder with her first child to do exclusive breastfeeding "because everybody was advising me that I should give him water, and tea, and juice at something like three months old, and of course a pacifier." She says she

succumbed to this pressure and introduced juice at three months. When I asked what kind of pressure it was, Inna told me:

> Well, from those who were older. Again, my girlfriends from the university, who had children before I did, they insisted on [giving] juice. And I also recall that he had a problem with his bowel movements, so they were saying that it was necessary to give him apple, those apple juices. (Inna)

The final issue here is pediatricians. Until the late 1980s, pediatricians in Ukraine advocated the introduction of correctional supplementation starting three weeks of age. However in the 1990s, the Ukraine government influenced by the world society began introducing national programs of breastfeeding support and, eventually, the Ukrainian Ministry of Health issued new guidelines on infant feeding based on WHO recommendations of exclusive breastfeeding until six months of age (see Chapter 5 for details). Nevertheless, a number of mothers reported that they introduced supplements early because it was suggested by their pediatricians. For example, Zina, who had read the US bestseller *What to Expect When You are Expecting* and was a prolific reader of Ukrainian parenting magazines, said that she was well aware of the new guidelines concerning supplementary foods. She was also a young mother, sharing an apartment with her parents and active in the local community, where early introduction of supplements was a common practice. Therefore, when her pediatrician suggested that she could start giving soup to her four-month old daughter, Zina easily succumbed.

> Well, generally they say that when the child is breastfed then supplements should be [introduced] at six months, right? And if [the child] is formula fed then it can be something like two weeks earlier, isn't it? Well, now they say it can be starting five months. So, I do not know why she [pediatrician] told me to start at four months, she said: "You can already start with a few drops of soup." Well, I immediately gave her something like 20 grams. (Zina)

Other women, like Julia cited above, noted the lack of advice from their pediatricians concerning supplements. Of course, a good number of women reported in contrast that their doctors advised them against introducing supplements before six months.

A more complex situation obtained, however, regarding pediatricians' recommendations concerning supplementation with water. The WHO/UNICEF guidelines explicitly state that breastfed babies do not need complementary water until six months, and the guidelines of the Ministry of Health state that, unless medically necessary, healthy infants require no complementary water until six months (e.g., Ministry of Health of Ukraine 2008). This requirement, however, often seems to provoke dissent from Ukrainian pediatricians. Before the 1990s, infants were routinely given supplementary water from birth, based on the guidelines of the Ministry of Health of the USSR (interviews with pediatricians, Kitikar et al. 1988), and this practice still has its supporters. For example, the authors of a popular Ukrainian infant care book, *Your Child*, which is distributed to mothers in maternity wards throughout Kiev, provide their own interpretation of the WHO guidelines, stating that water should not be given until the child latches on for the first time, but from then on all newborns need routine supplementation with water (Maidannyk and Burlai 2004: 94). Similarly, the mothers I interviewed reported that their pediatricians recommended early supplementation with water for one or more of the following reasons: breastmilk provides insufficient fluid, water helps fight off viruses, water relieves constipation and clears the mouth of plaque from breastmilk residue, and water is necessary during hot weather. Hence, nine women in my sample, who otherwise used exclusive breastfeeding, supplemented with water. For example, Nina, who was still breastfeeding her daughter at 14 months of age, never used

formula and introduced her first food supplement at 6 months, yet started supplementing with water at birth based on medical recommendations.

> Well, her pediatrician also recommended it, she said: "Offer her water!" When we were still in the maternity ward, at discharge they told me that it was hot, it was mid-summer, and that I had to give her water. So, I was offering her water. Well, when I was thirsty myself, why wouldn't I offer her water? I mean, I'd offer her my breast, and she wouldn't take it, and then I'd offer her water and she would drink it very well. (Nina)

Thus, these women knew about the world-cultural scripts favoring exclusive breastfeeding until 6 months of age but were more persuaded by their doctors' arguments, as is clear in Angela's case:

> In the maternity ward, I received a book, I think one of its author's names was Burlakov,[53] so it was more or less [clear]. I mean, when I read a book I also intuitively analyze it. So, if all American books write that water also should not be given until 6 months, then our doctors say that – no! – if the child is constipated, water should be introduced at an earlier age. So, I analyzed this information, they explained that water helps with this and this, and I introduced water earlier because she was constipated. (Angela)

Finally, like Julia, many of the mothers who introduced supplements early preferred to rely on traditional wisdom and advice rather than parenting literature in their infant feeding decisions. This approach to parenting was well explained by Galina when she described the sources of information she preferred in case she had questions about infant feeding.

> I talk to others who are like me, let me put it this way. Because I think, who'd know it better than a person who does the same thing? So, an expert doesn't always [know], some experts do not have their own children, you see? I mean, how would I know who wrote a book, and so forth? But the way I do it, I see this specific child and I see that this child is healthy and we could do the same thing [what his parents did]. Why can't I do the same thing with my child? (Galina)

[53] Angela probably means the book by Maidannyk and Burlai (2004) discussed above.

In sum, this section demonstrates that micro-level interactions mediate the impact of world-cultural scripts. Out of twenty-five Ukrainian mothers who were aware of world-cultural scripts promoting exclusive breastfeeding, ten women still introduced supplements early, between three and five months of age, in response to pressure from their older relatives, friends with children, or pediatricians. These pressures did not equally affect all women in my sample. Those who introduced supplements early tended to be dependent on their mothers or mothers-in-law for childcare; they were well embedded in local communities and regularly communicated with other mothers about childcare issues; they also preferred traditional wisdom and personal advice as their main sources of parenting information. Conversely, eleven women who did not introduce complementary foods before six months of age had very different socio-demographic characteristics and worldviews, as will be discussed in the next section.

When World Culture Matters: Infant Feeding Decisions and Rationalized Parenthood

Eleven women (37% of my sample) did not introduce any supplementary foods before their infants reached six months of age. All of them are highly educated, well off, professionally successful, and not dependent on their mothers for childcare. Moreover, nine of the eleven recently bought apartments and were not particularly familiar with their local communities. All of them had Internet access and routinely consulted web sites about infant feeding issues. Their discourse on infant feeding was embedded in a larger discourse related to the rationalization of parenthood in which they viewed themselves as modern, adult and responsible. Here I discuss these findings in detail, starting with Tania.

Tania is a twenty-eight year old mother of a three-month old girl. She and her husband are members of the rapidly emerging Ukrainian middle class – they are professionally successful, highly educated, and well off financially. Both Tania and her husband have managerial positions with multinational corporations in Kiev; they speak English, use the Internet and like traveling abroad. They own two cars and a condo in a newly built, prestigious house in a nice neighborhood. After giving birth, Tania took a maternity leave and plans to return to full-time employment when her daughter is about two years old.

For Tania, motherhood is based on conscious and informed choice; she makes her infant care decisions based on critical examination of various authoritative information sources. Thus, Tania and her husband planned for natural birth and attended prenatal classes. Tania read many books on child care, psychology, and development, including such international bestsellers as those by Doman (2005a), Loupan (e.g., 1987), Ibuka (1980), Montessori (e.g., 1973), Spock (Spock and Rothenberg 1985), and books by Ukrainian or Russian authors, such as Komarovskij (2007). Tania said that she read with a critical eye, analyzing what might work for her child and under Ukrainian conditions. She read Spock and found him outdated; she examined several other parenting books by American authors but found that much of the advice did not fit Ukrainian conditions. She believes in early development but does not want to blindly follow any author, such as Doman or Montessori, and prefers to take a little bit from each method. She also does not want to hurt her child's psyche with too many flashcards or reading by age one, but she

wants her daughter to start attending early development classes[54] when she is eighteen months old.

Tania thinks of herself as a modern mother whose methods and worldview are rather different from those of the "older generation." "Our new generation does not agree with the generation of our mothers," she told me. For example, Tania thinks that, counter to the traditional Ukrainian approach that advises mothers with infants to stay close to home[55] and avoid public places with large numbers of people in order to prevent infection, she prefers the active lifestyle common among Western mothers and planned a winter vacation with her infant child. Also, Tania believes in new approaches to childcare, such as feeding on demand rather than on schedule, not swaddling, and using disposable diapers. Exclusive breastfeeding, which Tania knows is recommended by WHO, is part of this modern approach. During her pregnancy, Tania decided that she would breastfeed exclusively for the first six months: "Well, when I was pregnant, I was sure that I would breastfeed. I knew exactly that I would breastfeed for a year… that I would start complementary foods not earlier than six or seven months."

Tania, who is financially and otherwise independent from her parents, does not take much advice from her mother, who lives nearby: "Our parents, how should I say, they mind their own business; our child is our own responsibility, and they cannot force their opinions on us." Thus, when her mother suggested that breastmilk should be supplemented with water, Tania refused, referring to information in the books she had read. Her main sources of childcare information and advice are parenting magazines,

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[54] Kiev has numerous early development centers that offer training in reading, math, art, music, dancing, and yoga, as well as the services of child psychologists and speech pathologists.

[55] According to this belief, women with infants are expected to spend most of their time either at home or outside "in the fresh air" taking walks with their children. However, they should avoid public places such as public transportation, shops, restaurants, cinemas, etc. Long distance travel is also discouraged.

books, the Internet, and her family physician, whom Tania trusts greatly. She and her husband, who have good health insurance through their employers, carefully selected this doctor in a good private clinic.

In sum, Tania believes modern motherhood to be different from traditional approaches of the older generation. She puts her trust in contemporary parenting literature based on science rather than in the advice of older relatives and friends. When I remarked that our mothers used the old feeding methods and we still grew up healthy, she replied:

> Well, yes. But what choice did we have? This is my reply. Of course, we grew up. But this is a new generation, they grow differently. Of course, one can use the old approaches when raising one's child and nothing bad will happen, but maybe this child will grow up to be different from other people in his generation who grew differently, who grew freer, who were developing early because they were not swaddled or were positively encouraged by their parents. Of course, you can raise your child using the old approaches, but will this child be competitive enough among his peers? That is a question, will he find himself in this new life? That is a question. Therefore, one has to be modern, one cannot use old approaches. (Tania)

Tania's case exemplifies many themes found in the discourse of Ukrainian mothers using exclusive or almost exclusive breastfeeding – parenting as conscious and responsible choice, the rationalization and medicalization of motherhood. Parenting as conscious choice was particularly prominent: women viewed themselves as responsible adults consciously making rational parenting decisions in everything from planned conception to attending prenatal classes and preparing for birth. For example, Ksenia, a thirty-five year old mother and a successful businesswoman who manages a chain of stores selling electronics, told me that when she and her husband decided to have a child, they read a lot of specialized literature and carefully planned their conception in order to

have a healthy baby. Her attitude is well illustrated by the following excerpt, in which Ksenia explained how she developed her preference for natural foods.

> First, when we were getting ready to become pregnant, we somehow adopted this preference [for natural foods]. We read a lot of literature. We even spoke to our baby from the first day we got pregnant. So, we knew that we would have a healthy child because… we even knew exactly when she was conceived, so the first five-six days after conception we were certain we got pregnant. So, we started going for walks and talking to her… I'd tell her about leaves and how they smell, how flowers smell, what a river is and where it flows. We listened to Bach and Mozart, and her dad was training her: "Who's that? Bach or Mozart? (Ksenia)

Oftentimes, this discourse was couched in a more general context of mothers as adult, mature and responsible, as was the case with Olga – a thirty-one year old employee of a US company in Kiev – who was delaying childbearing until she was settled in her career and "did a lot of things" in her life. She says:

> Well, I can tell you that we are rather grown-up and mature people. Even when we first met, we were already independent people with many achievements in their lives or at least who did a lot of things in their lives. (Olga)

Moreover, for these women, motherhood is viewed not as intuitive or traditional but as something to be learned by reading the most advanced literature on childcare, development, and psychology, as well as by gaining advice from trusted experts, such as pediatricians or family doctors. Thus, Anna, a graduate student of law who does almost exclusive breastfeeding, explicitly rejected the "folk wisdom" of the older generation and placed her trust in modern parenting literature.

> Folk wisdom is not for me. Even my mom [no longer] gives me any advice. She understands that it's pointless. Well, it's completely different nowadays, the approach to nutrition is very different. What my mom says about how she did infant feeding, and what we have now – it's two different things. (Anna)

Other women expressed similar reliance on parenting literature, on modern science and medicine, and specifically on various experts, including pediatricians, massage instructors, physical therapists, and lactation consultants. Their trust was reinforced by the fact that, as a rule, these women could afford the experts they deemed qualified. For example, most of them used doctors in private practices rather than public polyclinics. These doctors usually were oriented to exclusive breastfeeding and recommended it to mothers. This trend is well exemplified by Liuba, a twenty-four year old mother of a three-month old girl. Despite their young age, Liuba and her husband have had successful careers with international companies in Kiev and they were able to buy their own apartment in a newly built lavish house. New to the neighborhood, Liuba does not have much contact with local mothers. She is also very independent from her mother, who lives in another city, and her mother-in-law, who still works and lives in another part of town. Thus, Liuba's main sources of childcare advice are parenting magazines, the Internet, and her pediatrician, who recommended exclusive breastfeeding and whom Liuba greatly trusts.

> It so happened that when she was less than one month old we went to our local polyclinic to our district pediatrician (*uchastkovyi*), and I really did not like it very much. And I decided that our child needs to receive care somewhere in a private clinic so we got health insurance and now we use a private medical center… And there the doctor is very experienced, and she was recommended to me even before we got insurance… And in general I can call her any time I have any questions. (Liuba)

For many women, this overall trust in scientific and medicalized approaches to childrearing is expressed as fascination with modern techniques of early child development. Most of the mothers who chose exclusive breastfeeding also read at least one of the national or international bestsellers on child development, such as those by

Doman, Montessori, or Ibuka. They spoke about various early child development centers in Kiev, and a good many of them engaged in practices that could be found in parenting journals and the literature, e.g., baby yoga, baby massage, and baby diving. Guided by parenting literature, such as the best-selling parenting book by Komarovskij (2007), one of these women explained that for an infant "physical development is directly related to his mental development" (Olga). Thus, Nina, a thirty-year old bank employee, hired a professional masseuse for her infant daughter and, on this expert's advice, also engaged in baby diving, an unheard of practice for her older relatives.

> So we did her massage, also some light infant gymnastics, although it was actually the masseuse who was doing this gymnastics with her… so this masseuse I knew, she says: "Let start her on swimming, it is very good for strengthening legs." So she had our two-month old floating in our large tab and also taught her diving. (Nina)

Another trademark of the discourse of rationalized parenthood is a critical approach to parenting literature. Although these mothers viewed parenting magazines, books and the Internet as their main sources of advice and information, they did not unquestioningly accept them. Anna explained that she only trusts the information after she sees it in several different sources: "I check [the information] in this way – if I see the same information two or three times, then I classify it as probably correct." This same critical approach is demonstrated by Dasha, another mother using exclusive breastfeeding. Dasha attended pregnancy courses but found them insufficiently intellectually challenging; she critically read Martha and William Sears, found them too simplistic and repetitive, but liked their concept of attachment parenting.

An important sub-theme regarding the rationalization of motherhood is breaking free from superstition, associated with traditional Ukrainian beliefs about infants and

motherhood. For example, several women discussed how they object to the tradition that women with infants are supposed to stay at home – it is widely believed that, due to possible infections or effects of the "evil eye," infants under one year should neither be taken to public places, such as malls, movie theaters, or restaurants, nor travel by plane, train, or other long-distance transport. For Olga, this tradition had little scientific basis whereas the example of Western "mobile" mothers offered an attractive alternative. Olga and her husband thus planned to take along their infant son to their winter vacation in the mountains.

> They [Western women] have attitudes towards traveling with children different than we do. There is actually a great difference. When you go for vacation abroad and stay in hotels, even in Turkey, there is a great number of foreign tourists who vacation with infants, which shocks our people, especially the older generation who believe it's impossible for infants even to leave their apartment… Well, I think that a significant number of [Ukrainian] people already have changed mentally, they have become more active, which is required now. Therefore, some of our tourists travel with children. It is a different kind of vacation, but they go. And we'd also like to try. (Olga)

In sum, women who did exclusive or almost exclusive breastfeeding tended to belong to the middle- or upper-middle class, were highly educated, did not depend on their parents for childcare, and were not well integrated in the local community. Instead, they were integrated into world culture – they worked for international companies, spoke English and other foreign languages, traveled abroad, used the Internet, and read international bestsellers. For these women, exclusive or almost exclusive breastfeeding was an integral part of their overall approach of rationalized and medicalized motherhood. These women did not trust the "folk wisdom" of the older generation, believing instead that motherhood had to be learned from the most advanced parenting literature and medical or expert advice. Introduction of complementary foods at six

months, which was supported by scientific research, promoted by WHO, and advised by contemporary parenting literature, was adopted by these women along with other modern parenting practices, such as attachment parenting, feeding on demand, or baby yoga and baby diving.

Summary

World-cultural scripts were evident in the discourse of Ukrainian mothers and played a role in their decision-making about infant feeding. “Propaganda” in favor of breastfeeding and exclusive breastfeeding (with the introduction of supplementary foods at six months of age) were the most widespread scripts, reaching Ukrainian mothers via government programs as well as parenting literature, the Internet, and medical practitioners. But these scripts did not enter a cultural vacuum. The traditional model was well entrenched – a set of cultural beliefs and practices favoring breastfeeding with the early introduction of supplementary foods. The world-cultural “propaganda” resonated well with the Ukrainian traditional model, reinforcing mothers’ preference for breastfeeding. It seems likely that this dual pressure, from both local and world cultures, explains the fact that no Ukrainian mothers chose formula out of convenience (Chapter 6).

On the other hand, the scripts promoting exclusive breastfeeding and later introduction of supplementary foods contradicted the Ukrainian traditional model of early supplementation and therefore caused an explicit choice dilemma. Not all of the women were equally able or willing to follow the world-cultural model. In this case, the impact of world culture was mediated by women’s socio-demographic characteristics, personal

circumstances (such as dependency on mothers or mothers-in-law for childcare), and micro-level interactions. Women who followed the world-cultural model were from the middle or upper-middle class, independent of their parents, and strongly connected to world culture. As predicted by world-polity theory hypothesis WPq3, identity construction was one of the important mechanisms through which world-cultural scripts were constitutive of mothers' infant feeding decisions. Exclusive or almost exclusive breastfeeding was an integral part of these women's identities as modern mothers, practicing rationalized and medicalized parenthood.

The US Case

In my interviews with mothers in the US, where breastfeeding rates are much lower than in Ukraine, the most prominent world-cultural scripts were those promoting breastfeeding and exclusive breastfeeding, as well as the sacralization of children. As in Ukraine, the impact of these scripts was mediated by women's socio-demographic background. Identity construction was one of the important mechanisms through which world-cultural scripts were constitutive of mothers' infant feeding decisions.

World-Cultural Scripts in Infant Feeding Discourses

Among the world-cultural scripts widespread in the discourse of US mothers were WHO's guidelines on breastfeeding. Out of thirty women in the US sample, eleven (37%) explicitly referred to WHO guidelines on breastfeeding and seven others were cognizant of the recommendation of exclusive breastfeeding, even though they did not associate it with WHO. Note that, in the US and elsewhere, the recommendation of

exclusive breastfeeding can be traced directly to WHO (Chapters 2 and 5). In the US, where 82% of infants did not receive any breastmilk at six months of age in the year 1990 (National Center for Health Statistics 2001; Ryan et al. 2002), national health policies until the mid-nineties sought primarily to increase the rates of breastfeeding initiation and duration. The goal of exclusive breastfeeding most clearly emerged in the NCHS report (2001), *Healthy People 2010,* and the 1997 policy statement by the American Academy of Pediatrics (AAP) in connection with WHO's guidelines.

Among those women who referred to WHO, two mothers knew that WHO promotes breastfeeding but did not know the specific recommendations. Five women mentioned that WHO recommends breastfeeding for two or more years. For example, Kristy, who never used formula, introduced complementary foods at four months of age, and was still breastfeeding her eight-month old child, did not seem to be aware of the recommendation of exclusive breastfeeding, but she knew that WHO recommended breastfeeding for two or more years.

> I know the World Health Organization has a recommendation. I can't remember the age. I know it's extended beyond what the American Academy of Pediatricians recommends. I think they recommend maybe two years or something. I don't remember. I know it's longer than what's recommended by the American Academy of Pediatricians, and I think probably the reason is because the American Academy of Pediatricians doesn't want to offend American sensibilities. I definitely think that there's an attitude in America that a toddler or baby who can talk should not be breastfeeding, and I get the - I think - I get the impression in like Africa, that they do breastfeed beyond a year for quite some time, so yeah. (Kristy)

Four other women knew and cited several recommendations by the World Health Organization, including early initiation of breastfeeding (within one hour of birth), exclusive breastfeeding for six months, and continued breastfeeding for two years or

longer. One of these mothers, Rachel, was very vocal about her preference for exclusive breastfeeding, and when I asked her where this recommendation came from, she explicitly referred to WHO, also mentioning AAP as another source:

> I think that was from online communities that pointed me to AAP and the WHO guidelines. The AAP's a little more wishy-washy; they had some places that said six months and some places say four to six. The WHO was pretty much like: six months exclusive breastfeeding, and then one year, and then two years. So it was those sorts of things. (Rachel)

In addition, seven other women were aware of the recommendation of exclusive breastfeeding but did not explicitly associate it with the World Health Organization. Several mothers, like Rose, felt that exclusive breastfeeding was very much promoted by "everybody." Alex mentioned that "everything" she read "said to breastfeed exclusively for six months." Two mothers, Emily and Diana, learned about exclusive breastfeeding from their pediatricians, whereas Ashley knew about the guidelines of the American Academy of Pediatrics: "The stuff I read from, I think, the American Pediatric Society, said that breastmilk is fine up until six months old. They don't really need anything [in addition to breastmilk] until then."

The second world-cultural script prominent in the discourse of US mothers was the sacralization of children. Based on world-polity theory, I predicted that the scripts of individualism would be constitutive of decisions about infant feeding. Globalization entails increased the sacralization of individuals (Boli and Thomas 1999b) such that individual needs, rights, and well-being become ever more relevant decision-making factors. In relation to infant feeding, however, world culture is ambiguous as to whose rights and needs should prevail – those of the mother or those of the child. Therefore, I predicted that both types of scripts would be present in the infant feeding discourse – a

script about the sacralization of the mother being associated with women's decisions to bottle feed, while a script about the sacralization of the child being connected to breastfeeding (Chapter 2).

I found, however, that only the script of the sacralized child was present, and only in the US sample. In contrast to my hypothesis, those mothers who used formula did not talk about their own needs, wants and rights (sacralization of the mother). Instead, most women explained their use of formula as a necessity because breastfeeding did not work (Chapter 6). Even the six mothers who started supplementing with formula out of convenience avoided discourse about their own rights; instead, they spoke about the guilt they experienced for not breastfeeding or for supplementing with formula. For example, Star, a very active mother of five, who introduced formula when her daughter turned seven months old, said that formula fits her active lifestyle well and that, ideally, she would use formula-mixed breastmilk with her next child. In practice, though, her "conscience wouldn't allow" her to do that because breastmilk is better for the child.

> If I - if there was a way for her to still get the nutrition she needed and my body not to be taken away from me for so long, then I would find that way. I would say that I would give a [next] child formula-mixed breastmilk, like half formula, half breastmilk, but when I had my - another child, I wouldn't do it that way. I would still do solely breastmilk. So that would just be me lying. That's what I would want to be able to do, but my conscience wouldn't allow me to do that if I even tried - if I even tried to give formula at that point. I think now that she's 7 months, she's a little more independent. And the allergies, they're kind of - she's built an immune system to it, so the allergies won't be as prevalent because her body's been able to take more things. So I'm more comfortable with formula just a little bit as a supplement now. But as an infant, I'm not comfortable with the reflux and colic and all those different things. I'm not really comfortable with that, so I would do breastmilk, the whole up until this point. This is a point where I think - around 6-7 months; it gets to the point where you're tired of breastfeeding. And especially for me, I'm very active. (Star)

A similar tale was told by Angela, who tried breastfeeding but mostly bottle fed her four children, largely due to the greater control and convenience associated with formula. Even though she chose to use formula, Angela described her choice as "very selfish," rather than defend it by referring to her own rights and needs.

> With my daughter, I was being kind of - I was being very selfish. I thought because you know, my boobs went down or whatever, and some people were saying that breastfeeding will like take away when you're done or something like that, so I was like, "Well, I'm not gonna breastfeed this time," because I have this big issue with my weight. Like I want to gain, so I was like well, maybe if I don't breastfeed, I won't lose my weight so fast this time. I wish to this day I had breastfed her at least the month like I did everybody else… And my third, I breastfed for about almost two months, and then I knew I was gonna breastfeed this last baby. But we did it for a month. I guess I just wanted my body back and - I don't know. He was - he was a little greedy, so - well, maybe I was being lazy, I don't know, but I put him on formula. (Angela)

On the other hand, discourse reflecting the sacralization of the child was rather widespread among women doing breastfeeding. They usually considered formula feeding to be the most convenient method but explained that they did breastfeeding because it was best for the child. These mothers believed that they chose breastfeeding based on their babies' needs and considered formula feeding to be "selfish," as is clear from the next excerpt.

> I have a pretty strong opinion that breastmilk is really better for your baby, and so if you choose not to breastfeed, you're really doing a disservice to your baby and it maybe - I feel bad saying this, but I feel like you're maybe being selfish if you're choosing to do formula instead of breastfeeding because the choice is really - if you choose to do formula, it's more for your own convenience and your own time and personal selfish reasons, whereas if you choose to breastfeed, it's going to be better for your baby. And it may be more difficult for you, it may take more time, but in the long run it's gonna be better for your baby. (Kristy)

This sentiment was expressed in very similar ways by numerous women. Another example is Alex:

> I don't know, I guess if I'm really honest, I feel like a lot of women choose not to breastfeed because they think it's not convenient, and I think that that's a really selfish attitude to take that it's easier for me to do it this way. So I'm gonna do what's not best for my baby just because it's easier for me. I just don't think that's the right attitude. I mean, you know, I don't necessarily believe in completely sacrificing yourself to a fault for your child, but at the same time, if you are capable of making a decision, if you are capable of breastfeeding, for whatever period of time, then I think it's kind of selfish not to, I guess. (Alex)

Importantly, as in Ukraine, most US women interviewed were well aware of the benefits of breastmilk cited in the national and international medical literature, such as nutritional value, boosting the immune system, cognitive development, reducing the risk of cancer and some other diseases, and bonding (e.g., IBFAN 2010; WHO 2010). Most women cited several of these advantages of breastfeeding. As an example, here is Renee's view:

> But the benefits, the pros for breastfeeding are just so great that I could go on and on, just from what's in it and how the milk changes as your baby gets older, as your baby develops and just the immunities… I think, health-wise, it's so much better for them. It's better for you because they say it helps with the postpartum depression and things that people have after they have the baby. It helps create that bond with your baby, you're holding them close. It says it keeps them from gaining too much weight, it eliminates the bad cholesterol from their diet that they would get drinking most formulas… The benefits are just - you could just go on and on from the mother getting health - it eliminates certain cancers, it decreases your risk of getting certain cancers. Just it's just great to me. It's perfect. (Renee)

Finally, as predicted by world-polity theory, the world-cultural script of "natural life" was also found in the discourse of US mothers. The transnational breastfeeding advocacy movement emerged in the 1970s, to a considerable degree, in connection to the natural foods and natural birth movements (Blum 1999). Hence, I hypothesized that women's preference for breastfeeding may be part of their overall preference for natural foods, homeopathic medicine, or a less medicalized birth experience. In fact, women's

discourse about breastfeeding was often embedded in a larger discourse about the "natural life." When I asked Karol whether she remembered why she chose to breastfeed her two children, she replied:

> Yeah, mainly, I'm strongly into natural childbirth and things that promote the health of a child, which nursing would be the most significant to me of nurturing health. And maybe alongside that, delaying vaccinations is another thing our family has chosen to do, so some of our decisions have been based on education, reading, and saying if there's not a harm, it's more beneficial to make these decisions, including - of course, nursing is one where I think the bonding is equal to the nutrition. So for me, I didn't have them deliver - after delivering her naturally, I didn't have them just sausage ball her up and hand her over, I wanted skin-to-skin contact, she nursed immediately, chose not to have a [pitocin] for delivering the uterus - not uterus, the placenta, yeah, my uterus, I still have that - but you know, she nursed to do that. But the hospitals are very pro-medicine and pro-active in ways that I think are not healthy to a mom; and one of them, I think, is that they offer to take a child into a nursery and leave them there away from the mother. I think that's crazy. They offer formula, so that a mom can sleep. I think that's insane. I just think there's a whole bunch of decisions that are not common sense and they're not helpful to the child, and that's what our country does. (Karol)

Other women, like Kristy, focused more on the natural foods movement and how breastmilk was a part of this natural approach.

> I think there is this holistic food movement and it's becoming more popular and more - it's becoming less looked down upon to breastfeed, so I think - I think it's kind of on an upswing. Breastfeeding is going to - it's becoming more acceptable and more - I don't know - more common. (Kristy)

In sum, several world-cultural scripts were present in the US mothers' discourse. Many knew and cited guidelines on breastfeeding and exclusive breastfeeding by the World Health Organization; many were also well aware of the benefits of breastmilk discussed in the medical literature. Along with this awareness, the world-cultural scripts of the sacralized child perhaps account for the fact that even those women who believe that formula feeding is more convenient still prefer to breastfeed. This preference for

breastfeeding is further strengthened by world-cultural scripts promoting natural foods and natural birth, of which breastfeeding may be viewed as an integral part.

When World Culture Matters: The Impact on Infant Feeding Decisions

I next consider whether and when world-cultural scripts affect infant feeding decisions, primarily focusing on scripts promoting exclusive breastfeeding. My findings show that, similar to Ukraine, the effects of world culture in the US are mediated by women's socio-demographic characteristics, personal circumstances and, to a smaller degree, micro-level interactions.

Multiple studies (e.g., Blum 1999; McDowell et al. 2008) find that breastfeeding in the US is more prevalent among the middle or upper-middle class rather than lower-middle or working class women. The world-cultural script of exclusive breastfeeding and WHOs' guidelines on breastfeeding had a similar distribution in my sample. Among the lower-middle and working-class women, only one mother had heard about the WHO and none of them were aware of the exclusive breastfeeding recommendation. Correspondingly, none of these ten women used exclusive breastfeeding until six months of age: one used formula feeding only while the rest initiated breastfeeding but also introduced complementary formula or food supplements before six months of age. The mean age for the introduction of supplements was four months.

On the other hand, among the thirteen mothers who were aware of the exclusive breastfeeding script, seven actually followed through. It appears that personal circumstances were important mediators. Employment was one important factor: three women introduced supplementary formula because they could not pump enough

breastmilk. For example, Mya, the mother who runs her own business, talked about how she wished she could do exclusive breastfeeding but it was not possible given her work schedule. When I asked what she would do differently with her other children, she replied.

> The only thing I would do differently is I would have quit my job, so that I could have just exclusively breastfed her. But that wasn't possible. So given the situation, I would have done exactly the same thing. Exactly the same thing. (Mya)

Another mother, Rebecca, introduced cereals to her four-month old son because she started working and he refused to take pumped breastmilk or formula from a bottle.

> I - I was actually thinking that I was probably gonna wait until he was six months old to start with any kind of solids. But at that point, I had returned to work. I was - took my maternity leave for three months, and then when he was three months old I went back to work for a while. And he wasn't taking bottles, so I was really nervous. I didn't think he was gonna be getting enough to eat and just kinda worried about his growth and development because he wasn't eating at all during the day because he didn't - he was rejecting the bottles and all that. So at his four-month doctor appointment, his pediatrician and I talked about it, and she said, "Starting cereal at that age would be fine," and so that's what we did. We went ahead and started cereal. We started with the rice cereal and then barley and then oatmeal at four months. (Rebecca)

Another reason that women introduced supplementary foods before six months was the advice of pediatricians. The 2005 policy statement by the American Academy of Pediatrics stipulates that supplementary foods should be introduced to infants "beginning around six months of age," but "[u]nique needs or feeding behaviors of individual infants may indicate a need for introduction of complimentary foods as early as 4 months of age, whereas other infants may not be ready to accept other foods until approximately 8 months of age" (American Academy of Pediatrics 2005). Thus, two mothers explained that they introduced supplementary foods at four months because of recommendations

from their pediatricians. One of them, Ashley, is a school teacher who returned to work when her child was nine weeks old. Ashley knew about exclusive breastfeeding from the AAP guidelines but she first started supplementing with formula when her child was three months old because she could not pump enough breastmilk. She then introduced rice cereal at five months, based on her reading and her pediatrician's recommendation:

> The things I read from baby books and gotten information from my pediatrician said between four and six months is when they're ready. He'd been doing a better job holding himself up, and he started watching everything we were eating. So we started with rice cereal because I read that has the least amount of allergic reactions. (Ashley)

It should be noted that only two women in the US sample reported learning about exclusive breastfeeding from their pediatricians. In contrast, fifteen mothers mentioned that their doctors recommended or approved introducing solids before their babies reached six months of age. Several mothers who knew about exclusive breastfeeding from other sources reported that they chose not to follow their doctors' advice. Rachel, for example, felt committed to exclusive breastfeeding and refused to introduce rice cereals at four months of age.

> I wanted to start at six months and at the four-month visit, it was actually the doctor that said the thing about vitamins. And she said, "You can start her on a little bit of rice cereal with breastmilk." I cut her off and said, "We're waiting until six months." And she said, "Okay, but if you want to." And I said, "Well, we're waiting until six months." Like I don't see - like it wasn't like my child is starving to death and she has to have the food. It's a choice and - and it's not like I'm saying, "I think I'll wait 'til she's seven." But she was also pushy about that. And a friend of mine who goes to that pediatrician warned me. The handout that they give you says four to six months. And I feel pretty strongly – yes - I feel pretty strongly about the six months. Although again, like I think that there's reasons to start earlier, but I feel pretty strongly about waiting until six months. (Rachel)

On the other hand, among those mothers who were not aware of the exclusive breastfeeding recommendation, a common practice was introducing supplements before six months, based on the medical advice or approval. Thus Jessica recalls:

> I always really used pediatrician [for advice] or health professionals were key [source of advice]. I have developed my own instincts, as well, but they were key in finding out advice about kids and children and what to do concerning them. So yeah, I spoke with the pediatrician first and found out when would it be the best time to start feeding the baby and what I thought that she wanted. And then I told her - I think I was told 4 months. (Jessica)

In contrast to Ukraine, for mothers who were aware of exclusive breastfeeding, interactions with family members and friends did not have much impact on their decision-making regarding when to introduce supplementary foods.[56] Only three of these women experienced any pressure from relatives or friends to start supplementary foods earlier than six months, and two of them resisted this pressure. Emily recalls in this regard: "My mother-in-law wanted me to start him on cereal right away, and I had to really put my foot down and say, 'No foods until he's six months old,' because she thought that he needed other stuff." Only one of these mothers, Rose, introduced apple juice at four months based on advice from her sister, while starting other supplementary foods at six months.

These findings show that, in contrast to Ukraine, the script of exclusive breastfeeding did not introduce major dilemmas of choice for the US women: mothers familiar with this script tended to follow through unless recommended differently by their doctors, or unless they experienced difficulties due to employment. Interactions with

[56] Among the seventeen women who were not aware of the script of exclusive breastfeeding, seven received advice from family members and friends to start supplementary foods before six months and four women followed this advice. However, these mothers did not report experiencing any conflict or choice dilemma. Being unaware of the notion of exclusive breastfeeding, they did not see the introduction of supplements before six months of age as problematic.

family members had relatively little impact on deciding to breastfeed exclusively or introduce supplements. Also unlike Ukraine, most US mothers had relatively few daily interactions with other mothers in their neighborhoods. The following response by Alex, to the question of how often she met with other mothers, is typical:

> Honestly, not very often… It's really hard, again, with her schedule to kind of get together with other moms because usually they have babies, who have schedules or whatever. I would say face-to-face maybe once a month. It sounds like I'm very isolated, but I'm not. Like I said, I'm either talking on the phone or I email a lot with my friends, and we're always talking about baby stuff or whatever. (Alex)

US mothers rarely reported instances of unsolicited advice or criticism regarding infant feeding from their acquaintances. In contrast, a widespread theme was that mothers tried to surround themselves with "like-minded" persons who were a source of support, either online or in person.

> Yeah, people like-minded, I guess, I turn to first, and then Internet with books that are recommended from Internet. Like, *Super Food, Super Baby*, those types of books that have to do with how to introduce and all those things, but I kind of glance at that and then they're just too overwhelming. But yeah, mainly, I learn from other women who I think I'm like-minded with that have older children or who have done this. (Karol)

Thus, many women reported that they participated in various interest groups, such as support groups of stay-at-home mothers, neighborhood play groups, online breastfeeding support communities, birthing classes, etc. Many women, like Oliver, reported that friends and acquaintances from these groups were a great source of advice and encouragement concerning breastfeeding and exclusive breastfeeding.

> And I will tell you the seven couples that were in my birthing centering group were all adamant that they were going to breastfeed. I mean, it was unanimous. So that certainly influenced me. I'm sitting around the table with everybody who was strongly going to breastfeed. And really telling you it was the greatest thing ever. It certainly made me go, yeah, then I need to at least try it. (Oliver)

In sum, interactions with family members, friends, and acquaintances did not weaken, and in certain cases reinforced, the impact of world-cultural scripts on exclusive breastfeeding. The few instances of unsolicited advice and criticism concerned breastfeeding in general or the duration of breastfeeding, rather than exclusive breastfeeding specifically. Some women reported receiving negative comments when breastfeeding in public, while others had encounters with relatives and friends who were not supportive of breastfeeding or thought that formula was a better alternative. Thus, Tasha recalls:

> I meet with a group of my friends, girlfriends, every Wednesday night for dinner. And two of them, they are twins, they were surprised that I was going to breastfeed because they weren't breastfed. Their whole family has a very bad opinion, or not bad, but it's just like we don't breastfeed type of thing. So I had to tell them the benefits of it. I think now they really appreciate it, and they see that it's not as bad as they were told it was. Or I don't know if it was told, or just the whole feeling of their family. They just don't like it. (Tasha)

Other mothers were advised by family members and relatives to start supplementing with formula. Mya recalled that when she was struggling to keep up breastfeeding in the first weeks after giving birth, her mother thought that formula offered an easier solution.

> …I wasn't breastfed. My mother just put me on formula. And my mother just kept on saying - because I would cry a lot, and that type of thing - and my mother would just keep saying, "Mya, don't work so hard. Just give him formula." And I would be like, "No. I want him to be breastfed." (Mya)

Whereas Mya was able to withstand her mother's pressure and waited to introduce formula at three months of age, because of the demands of her business, two women in

my sample briefly supplemented with formula based on advice from family members.[57]

Finally, another common theme was the experience of receiving discouraging comments about breastfeeding for more than six months. Katie received such comments but used a world-cultural script – WHO's recommendation – to defend her breastfeeding:

> Yes, I've got them [WHO guidelines] especially now that he's more than one because people could say, "Well, the American Academy of Pediatrics says just until one." You go, "Well, the World Health Organization says two and as long thereafter as mutually beneficial and desirable..." (Katie)

Hence, despite contrary pressure or negativity, interactions with family members and friends did not have much impact on the women's infant feeding decisions. As I showed in Chapter 6, all but one US woman made the conscious choice to initiate breastfeeding because of the health benefits for the baby. The major reasons given for the fact that, by the time of the interviews, five infants were formula fed while eleven received a combination of breastmilk and formula, were employment; preference for the efficiency, predictability, and convenience offered by formula; and various problems with the supply of breastmilk, especially for those mothers who supplemented with formula in the hospital.[58]

To conclude, the impact of world-cultural scripts promoting breastfeeding generally or exclusively was largely mediated by women's personal circumstances, such as employment status or perceived problems with breastmilk supply, or the US cultural context with its emphasis on efficiency, predictability, and control. Interactions with family members, friends, and acquaintances, on the other hand, did not significantly weaken the impact of world-cultural scripts. In contrast to Ukraine, where nineteen

[57] Both women supplemented with formula for only a brief period, when they thought that their children did not have enough breastmilk.
[58] Public health research shows that hospital supplementation with formula has a negative impact on the length of exclusive breastfeeding (Asole et al 2009; Gagnon et al 2005).

women reported relying on their mothers for babysitting, only three women in my US sample did so. Being independent of their extended families, these women were not pressured to accept infant feeding advice that might contradict their own views. In addition, the US mothers were relatively weakly embedded in their local communities and met few local mothers. Instead, they belonged to what Bellah et al. (1985) called "lifestyle enclaves," or groups with particular shared interests, such as homemaker support groups, birthing classes, and breastfeeding support groups. This means that those mothers who were highly invested in breastfeeding tended to connect with "like-minded" women who were a source of support and encouragement and, if anything, reinforced the impact of world-cultural scripts. Finally, several groups of professionals, such as lactation consultants, midwives, and instructors from prenatal classes, emerged as "agents" of world culture (Meyer and Jepperson 2000), promoting breastfeeding and exclusive breastfeeding, and disseminating WHO guidelines.

One factor that somewhat weakened the impact of world-cultural scripts on exclusive breastfeeding, at the level of micro-interaction, was the influence of pediatricians who approved or recommended the introduction of supplementary foods between four and six months of age. In some of those cases the early introduction of supplements was probably medically necessary. Yet, the fact that only two women reported learning about exclusive breastfeeding from their pediatricians suggests that, even though AAP embraced exclusive breastfeeding until the age of six months, this recommendation has not taken root with practicing pediatricians. Notably, however, mothers in my US sample reported that their pediatricians were generally supportive of

breastfeeding; the several cases when medical professionals insisted on the introduction of formula occurred in the hospitals before the mothers' milk came in.

Finally, my findings in this section suggest that the impact of world-cultural scripts may be mediated by women's socio-demographic characteristics. No mother from the lower-middle or working class was aware of exclusive breastfeeding or WHO's guidelines and, none of them used exclusive breastfeeding until six months of age. Even though such class differences cannot be affirmed without statistical inference, these results make sense in light of other research indicating that, in the US, breastfeeding and exclusive breastfeeding are less prevalent among women of lower education and SES (e.g., Li et al. 2005). My findings suggest that one of the reasons this might be the case is lack of exposure to world-cultural scripts promoting breastfeeding. Such class differences are further amplified by different representations of motherhood, discussed in the next section.

Infant Feeding Decisions and Rationalized Parenthood

My analysis of the interviews shows that women's discourse regarding exclusive breastfeeding or the WHO guidelines on breastfeeding was often associated with discourse reflecting notions of rationalized motherhood. For example, mothers stressed that they "research everything," basing their parental decisions, including those about infant feeding, on thorough analysis of contemporary authoritative sources, such as childcare books, Internet sites, or parenting magazines. An illustrative example is Alex, the white, middle-class mother who knew about the WHO guidelines on breastfeeding and breastfed exclusively for six months. Right at the beginning of our interview, in

response to my question of who she was as a person, Alex noted: "And I just kind of consider Ashby my job, and so that's why, you know, spend a lot of time reading and researching, and that's my childcare bookshelf over there over the TV." Alex developed this theme throughout the interview. For example, when talking about her decision-making process behind the introduction of supplementary foods, she explained:

> I have two books that I use most -- one is called *Super Baby Food* and the other one is by Annabel Karmel, it's called *One Hundred Top Baby Purees*, I think. But I definitely research by whatever method, every next step. Part of it is just because I'm a first-time mom, and I don't necessarily trust that I'm gonna make the best decision on my own without any information. And part of it is just because other people have done it before, and the safety factor, and whatnot. So before I give her another, you know, like when I introduced yogurt, I read, okay, when am I supposed to do this, what kind am I supposed to give her, what's the best brand? (Alex)

Rationalized parenthood is characterized by active information seeking and researching "every next step" through multiple sources, rather than relying primarily on intuition, common sense, or traditional wisdom passed along by older generations. Women's exposure to the WHO guidelines on breastfeeding may be partially understood as an outcome of this active information seeking and learning. Those women who attended prenatal classes, consulted lactation specialists, or otherwise researched their infant feeding and other parental decisions were more likely to come across WHO's recommendations and other world-cultural scripts on infant feeding.

This tendency is well exemplified by another middle-class mother, Oliver. She is a well educated and professionally successful working mother of a six-month old boy. She was very vocal about her preference for modern rationalized parenting based on science rather than "old wives" approach.

> I will tell you, we really rely on the pediatrician. Or we rely on journals or something else that backs up the pediatrician because there's just a lot of old wives' tales, and a lot of what my mother did 30 years ago is not necessarily - it's been proven through studies maybe not to work - because she was like, you need to feed him cereal so he'll sleep through the night. I'm like, it's not proven. So I will tell you, pretty much [we rely on] *What to Expect*, that book, we also get magazines, *American Baby* and *Parenting*. (Oliver)

When Oliver was searching for information on breastfeeding during her pregnancy, she learned about the WHO recommendation of breastfeeding for two or more years from her midwife. Even though, like many other US mothers, Oliver had a preference for the efficiency and ease associated with bottle feeding, exposure to the WHO guidelines was one of the factors that influenced her in favor of breastfeeding.[59]

> And the pros and cons [of breastfeeding] – definitely, the pros seemed to really outweigh the cons. So the cons being, like I had said, pretty much he was going to be tied to me for the first few weeks for nourishment. But other than that, I definitely thought the pros outweighed the cons. Of course, that's the same time I learned that globally, so many people breastfeed. America is just an oddball. We were talking about this the other day. I think Norway, 97 percent of mothers breastfeed. It's amazing. I had no idea until I was looking into breastfeeding and how America is just odd in its lack of breastfeeding. So that influenced me, too. I mean, the World Health Organization says you should breastfeed for two years. I mean, a lot of the stuff I just had no knowledge of it. (Oliver)

However, Oliver did not come across the recommendation of exclusive breastfeeding, and she introduced supplements at four and a half months of age based on advice from her pediatrician.

> He was a big boy. He was 9-pounds and he got to -- by then, by about four and a half months -- he was averaging about 20 to 22-ounces of milk a day. And I was barely able to keep up with him, just feeding him only milk because he just was growing so rapidly. So the pediatrician, when we went for his three-month interval, said if you get to that point where you're just having trouble keeping up, and he doesn't seem like he's full,

[59] Other factors that influenced her decision to start breastfeeding were the health and economic benefits of breastmilk. Oliver also mentioned the impact of women from her prenatal class, who were openly pro-breastfeeding.

> feel free to introduce some cereal, especially since he's growing so quickly. (Oliver)

In sum, rationalized parenthood, with its emphasis on research and education, was an important, though not determinative, factor associated with mothers' exposure to world-cultural infant feeding scripts. Their preference for exclusive breastfeeding or long-duration breastfeeding, and the impact of the WHO guidelines, was often embedded in broader parenting philosophies emphasizing techniques promoted by contemporary parenting literature, such as attachment parenting, baby-wearing, or baby-led feeding. Here is how it was expressed by Megan, a UC-Berkeley graduate and mother of a twelve-month old girl, who knew the WHO guidelines, breastfed exclusively for the first six months, and was still breastfeeding at the time of the interview:

> There's the U.S. style move to more sorta disassociated model. You didn't wear your baby on your body. You definitely fed your baby formula. The formula babies were born at hospitals… And there's this, I don't know if it's the post-feminist movement to get back to wearing your baby on your body and breastfeeding your baby. So I like a lot of those ideas. I guess I don't know when exactly that started maybe, but '70s are when the pack started coming back and breastfeeding started to be socially acceptable again. I like - so I mean that's probably primitively more traditional than the older dress model, but I like that. I feel more control with that style than putting your baby in a crib with a monitor far away from you, and trying to get away from your baby as much as possible. (Megan)

Finally, I found that world-cultural scripts on breastfeeding tended to be associated with views emphasizing the significance of breastfeeding to women's identities as mothers. Women talked about taking pride in breastfeeding or feeling guilt when breastfeeding did not work out; they also described themselves and other mothers as "breast feeders" or similar terms signifying the centrality of breastfeeding to the motherhood role. For example, Rachel, who felt very strongly about exclusive

breastfeeding and knew the WHO guidelines, described herself as a “breast feeder” and even a “kind of a boob Nazi.”

> And the more I learned about formula, I just couldn’t even consider giving it to her. And I’ve become kind of a boob Nazi… It’s just become a passion, and I think it’s a really important thing for all moms to at least try. And it bothers me when like hospitals push formula and all that... And I did it -- I’m really proud of myself -- I did six months of exclusive breastfeeding and even now, where she’s not really into solids, so pretty much she’s breastfeeding and occasionally eating a bite of something. (Rachel)

Another mother, Francheska, who did exclusive breastfeeding for the first six months and introduced some supplementary formula after her daughter turned six months old, explicitly talked about the guilt associated with not being a “pure breast feeder:”

> And I think that kind of, also, goes into supplementing, that supplementing with formula is kind of like a form of not breastfeeding. And so, again, it’s like that if you’re not a pure breast feeder, than you’re one notch below than someone who only breastfeeds. If you’ve ever given formula, than you’re one notch below, depending on the frequency, where you are in motherhood. And there’s definitely a sense - I’ve felt that sense, and it’s very subtle, but I think it’s from magazine articles talking about how great breastfeeding is. I’ve known a lot of women who have very proudly breastfed in front of me and I’ve known a few women who have been like: “Well, she doesn’t breastfeed.” They’re more ashamed when they talk about it or they’re more quiet, or they don’t say: “Well, when I was bottle-feeding the other day.” (Francheska)

This quote also demonstrates that, as is typical of social identity processes (e.g., Milkie 1999), women like Francheska not only defined themselves individually, through breastfeeding, but also collectively, in that they felt that breastfeeding was expected of them by other community members. This theme emerged forcefully in a story told by Mya, another mother who was aware of the exclusive breastfeeding script. Mya explained that with her first child, Ethan, she had a hard time establishing lactation because he received formula in the hospital. She ended up feeding Ethan with both formula and

pumped breastmilk because he would not latch on. As she struggled to keep breastfeeding, Mya was relying mainly on books as her major source of advice. As she put it, she was ashamed to ask advice from other mothers because of the social stigma she felt was attached to not breastfeeding: “Honestly, with Ethan, I don’t know why, but I did not reach out to other moms. I think I was embarrassed because I think there was a little part of me that felt like I was being a bad mom because I couldn’t figure it [breastfeeding] out, if that makes sense, at all.” With her second child, however, breastfeeding worked out and Mya was at ease talking with other women: “I was more comfortable talking to other mothers, too, because I felt like there’s such a social stigma if you’re not breastfeeding; so because I was breastfeeding, I was more comfortable asking questions.”

These findings accord well with established research on breastfeeding in the US. Blum (1999) argued that breastfeeding has long been institutionalized as integral to the motherhood identity of middle-class women. Despite growing knowledge about the advantages of breastfeeding, it is less institutionalized among working-class mothers as they often lack the resources, such as time or help with housework, and support to successfully initiate and continue nursing (Carter 1995). I found similar dynamics among the working-class women in my US sample. Many of them stated that they preferred breastfeeding but had varying degrees of success due to employment or lack of support (eight out of ten working-class women were single, separated, divorced, or never married at the time of the interview). They also felt that breastfeeding was not common among their relatives and friends and was not expected of them. Consider the following example.

Amanda is a twenty-seven year old, black, single, working mother of two girls – a nine year old and a three-month old. Amanda had her first daughter while still in high school. She learned about the advantages of breastfeeding from watching the *Baby Channel* on television as well as through a mandatory prenatal class for teen mothers. Based on this information, she decided to try breastfeeding, even though her mother did not breastfeed her and could not provide much advice. She was able to nurse for the first six weeks before she had to return to school.

> So while I was on my six weeks [leave], she breast-fed that whole time. When I went back to school, I had a lot of discomfort as far as gorging, and the teachers didn't want to let me go to a facility to go ahead and release my milk. Well, that was years ago. But I would try to do it on recess or gym, go ahead and pump my milk. It didn't work that long. So unfortunately, I didn't get to breastfeed as long as I wanted to with her. So I had to go ahead and switch her to bottle-feeding. (Amanda)

Amanda's second daughter, on the other hand, was exclusively breastfed for the first three months. Amanda still preferred breastfeeding and she was supported in the decision by additional information received from a lactation nurse in the hospital and a lactation consultant from the WIC program. She also felt that at that period of her life, breastfeeding was easier to accomplish:

> This time around, I was more financially stable and had a better position with my job, not as young, done with my education, so I went ahead and decided with her, I wanted to give it a shot for six months, at the least. (Amanda)

Amanda was thus committed to breastfeeding based on information about its health advantages for the child. She did not choose breastfeeding because of social pressures, as in the case of the middle-class mothers who felt that nursing was generally expected of them. In fact, Amanda noted that she was rather alone in her decision: "I

don't know a lot of women that breastfeed. I know a lot of women that bottle feed. I think it's - they just do it because it's more convenient to them."

Eventually, however, Amanda had to introduce supplementary formula due to the requirements of her busy life. On weekdays, she gets up at 4:15 in the morning to be able to pump her breastmilk, nurse her daughter, drive one girl to school and another to daycare and still be on time for her job, which is a long way from her home. She also pumps three times a day while at work. In the evenings, she picks her daughters up, cooks, helps her older child with her homework and gets the girls bathed as part of their bedtime routine. Although pumping and breastfeeding puts a high toll on this exhausted mother, she is still willing to continue, even though sometimes she has to supplement with formula when she cannot pump enough breastmilk.

It should be noted, finally, that Amanda was not well aware of world-cultural scripts favoring breastfeeding. While she was aware of the health advantages of breastfeeding, she neither knew the recommendation of exclusive breastfeeding for the first six months nor had she heard about the WHO guidelines. Like many women in my US sample, Amanda did not encounter the WHO guidelines via the health care system and she was also not well positioned encounter them through other means. In contrast to middle-class women who engaged in the discourse of rationalized motherhood, Amanda's approach to parenting was more intuitive and traditional. Even though she made some use of the popular parenting book *What to Expect When You are Expecting*, she was not actively researching her parenting decisions but relied on medical advice, common sense, and intuition.

This discourse of "innate" motherhood was also shared by other working-class mothers I interviewed. It entails women stressing their own judgment, intuition, experience, and common sense, as well as generational wisdom, over learning based on modern science and parenting literature. For example, when I asked another working-class woman, Olivia, whether she relied on any literature in her infant feeding decisions, she replied:

> I have been given literature on it. And I probably still have some, but I haven't looked over it. I haven't really looked into it. I just kinda - the way I do, is I just kinda go by the baby. Every person, every child, every infant is different. Statistics cannot tell me about my child. I have to just go by my child. And I may look over the basics, but I don't really follow those things. I don't follow them. (Olivia)

This is not to say that working-class mothers were not reading any parenting literature, but they placed lower value on research and on striving to learn parenting skills based on modern science. Another black working-class mother, Allison, said in this regard that she read some parenting books and magazines and found them helpful, but she prefers to rely on her own intuition and experience as well as advice from other mothers when making her parenting decisions: "I learned more like by just experience and by example or by what someone else or how someone else reacted or how they - what were their steps in a certain situation." Similar to Olivia, she believes that every child is unique and only mother can know what works best for her child.

> Every child does not fit whatever bracket, and that comes with feeding, that comes with everything, everything. Every child does not fall within that range. Every child does not do that… Some child[ren] come above that, some people come lower. It just depends upon the child. So that's why I read it, you know, and I pick out maybe things within my reading that can help me or benefit me but it doesn't mean I'm agreeing with all of it because it may not pertain to my child. (Allison)

Similar themes were found in the rest of my interviews with working-class mothers. Even though breastfeeding was not part of their social identity, these mothers tried nursing due to its health benefits but were not always successful because of the lack of resources and social support. As a rule, they were well aware of the advantages of breastfeeding thanks to the health care system, the WIC program, parenting magazines, and even TV programs. On the other hand, they had had little exposure to world-cultural scripts like the WHO guidelines, since such scripts have not penetrated deeply into US popular culture and they are not regularly disseminated by the medical profession. In the absence of active searching for information pertinent to breastfeeding, these mothers were less likely to come across the recommendation of exclusive or long-duration breastfeeding.

I thus am led to the following conclusions. As predicted by hypothesis WPq3, identity construction was an important vehicle through which world-cultural scripts impacted the US mothers I interviewed. First, women's increased exposure to the world-cultural scripts on breastfeeding seemed to be a result of a dialectic process: those women for whom breastfeeding was already integral to their motherhood identities were more likely to search for additional information on breastfeeding and come across the WHO guidelines. Second, women's exposure to the scripts on exclusive breastfeeding and the WHO guidelines was associated with their identities as modern mothers practicing rationalized parenthood. This rationalized approach, which prescribed that parenting should be based on the most advanced science, made mothers more likely to research their infant feeding decisions and thus come across the WHO guidelines. In some cases, this rationalized approach also led mothers to adopt the philosophy of attachment

parenting, which includes exclusive breastfeeding, that is promoted by contemporary parenting literature.

Third, these mechanisms of identity construction were not equally distributed throughout my sample. In a pattern consistent with previous research (Blum 1999; Carter 1995), I found that breastfeeding was less central to the motherhood identity of the working-class mothers in my sample. Also, the discourse of rationalized motherhood was significantly more pronounced among upper-middle and middle-class mothers but largely absent among working-class mothers, who to a greater degree relied on tradition and intuition in their parenting. Even though such class differences cannot be affirmed in the absence of statistical inference, they are plausible given that the middle class has historically been the prime locus of rationalization (Weber 2002). Finally, in the absence of the identity construction mechanism identified here, working-class mothers were less likely to come across world-cultural scripts promoting exclusive breastfeeding or the WHO guidelines.

Summary

My findings in the US sample support hypothesis WPq1: in the US and Ukraine, world-cultural scripts were present in mothers' discourse on infant feeding. As predicted by hypothesis WPq2, the most prevalent scripts were those promoting breastfeeding and exclusive breastfeeding, as well as the script of the sacralization of the individual. Contrary to the hypothesis WPq2, however, sacralization of the individual was evident in only one form, the sacralization of the child. When discussing infant feeding, women mostly referred to the needs and rights of their babies to have the "best" nutrition, that is,

breastmilk, but they rarely referred to their own rights or needs when discussing the use of formula. These findings suggest the growing power of the world-cultural scripts promoting the notion that breastmilk provides the best nutrition (and other benefits) for babies.

My findings in this section also enabled me to discern specific conditions under which world-cultural scripts promoting exclusive breastfeeding – especially the WHO guidelines – were constitutive of mothers' infant feeding decisions. Consistent with hypothesis WPq3, identity construction was an important mediator in this relationship, as was socio-demographic background and personal circumstances. A third factor was micro-level interactions with various professionals, whereas interactions with family members and friends had only limited impact for the US sample.

Knowledge of WHO guidelines and recommendations of exclusive breastfeeding until six months of age was most prevalent among upper-middle and middle-class women but almost entirely lacking among working-class women, who did not practice exclusive breastfeeding. These differences were closely associated with different mechanisms of identity construction. Both the centrality of breastfeeding to their motherhood identity and the overall ethos of rationalized motherhood made upper-middle and middle-class women more likely to seek information on breastfeeding and thus more likely to come across the WHO guidelines. In contrast, working-class mothers adopted a more intuitive (traditional) approach to motherhood; since breastfeeding was not integral to their identities, they were less likely to seek additional information on breastfeeding and thus they did not come across the WHO guidelines, which are not prevalent in US popular culture.

Not all the upper-middle and middle-class women who were exposed to the world-cultural scripts on exclusive breastfeeding were able to follow the recommendation. Personal circumstances and micro-level interactions with health-care professionals mattered in this regard. For US women, employment often prevents exclusive or supplementary breastfeeding, and in many cases pediatricians approved or recommended the introduction of supplements before six months of age.

In contrast to Ukraine, interactions with family members and friends did not seem to weaken the impact of world-cultural scripts. More independent from their extended families, US mothers were less compelled to heed advice that contradicted their own views. US mothers also tended to interact with women who shared similar infant feeding philosophies. So mothers invested in exclusive breastfeeding received little contradictory advice and considerable support from their friends and acquaintances.

Even though my discussion in this section largely focuses on the impact of world-cultural scripts on exclusive breastfeeding, the findings concerning the impact of the scripts promoting breastfeeding in general are also illuminating. All women in my US sample knew about the presumed advantages of breastfeeding, and all but one woman tried to initiate breastfeeding (Chapter 6). The impact of these scripts was largely mediated by hospital practices interfering with breastfeeding initiation, problems with breastmilk supply, employment, or preference for various efficiencies associated with formula.

CLASS MATTERS: INFANT FEEDING AND WORLD-SYSTEM STRUCTURES

Advertising, Consumerism, and Resistance

In this section I turn to the effects on infant feeding decisions and practices of structures and processes involved in economic globalization. My findings partially confirm hypothesis WSq1 – women's discourse in both US and Ukraine reflected the impact of companies producing baby food and formula and, to a lesser degree, the culture of resistance promoted by the breastfeeding advocacy movement. I found little evidence in support of hypothesis WSq2, however: in Ukraine, the themes of Western cultural imperialism and resistance to Westernization were not prominent.

The theme of resistance was only weakly evident in the interviews. Out of sixty women, five (four in the US and one in Ukraine) mentioned the international controversy over the aggressive marketing of formula or the boycott of Nestlé. Liuba, a Ukrainian mothers, put it this way:

> Well, it may be good that different infant formula products are being produced. But then it is another matter when I know, I've heard about it somewhere or I've read about it, that some producers launch such advertising campaigns that formula is almost better than the breastmilk. Of course, this isn't right. I am not sure, I think this happened somewhere in Africa [where] they have problems with water supply. I mean, the water is not good for drinking and when it is used to mix formula, the results can be awful. So in this regard, of course, it is bad and there should be propaganda, and everything needs to be done that women breastfeed, and the longer the better. (Liuba)

Two of the US mothers even suggested that knowledge of the controversy might have made them more inclined to breastfeed. Here is what Francheska related:

> I also know that there have been, politically, situations in the past when companies have pushed breastmilk on women who can breastfeed, particularly in Third World countries where they can't afford breastmilk. I remember in the '70s, boycotting Nestlé because Nestlé did that. And I was a kid - that's interesting. I wonder if that had some impact on why I

> breastfeed? I never thought about that before. And even though my mom didn't breastfeed, my mom was pretty political and she had her causes. We were in the grocery store, I wanted to buy a Nestlé candy bar, and my mom said no, we're boycotting Nestlé. And I was 8 years old. What does that mean, mom? And she explained, we're not buying Nestlé because they're a company that also makes formula and they're pushing it on - I don't even remember where, guess probably somewhere in Africa, but I'm not sure - on people who don't need it and can't afford it and breastmilk is best. Maybe when she said that to me, that probably instilled a big value in me that breastmilk is best because she said that to me. Breastmilk is healthier for their babies, anyway, and they don't need it. So I've kinda had this "formula is evil" sense from that, probably because of 30 years ago when we boycotted Nestlé because of that. But I know it's not the formula, itself, it's the company. (Francheska)

Other women, like Rachel, had general anti-commercial sentiments and resisted what they perceived as the aggressive marketing of formula and, more broadly, the American fascination with brands and commercially produced products.

> I got formula in the mail and nobody [has objections]. I liken it to what if I was a smoker and I quit smoking? And then every month the cigarette company said, "We're glad you stopped smoking. Here's a pack of cigarettes. Just keep it in the house in case you don't feel that good," you know… Like if - nobody thinks twice. They would - people would be up in arms if alcoholics got bottles of beer in the mail, people would be shocked. But oh, it's okay for the formula companies. They're just advertising. They're just advertising. (Rachel)

Thus, though not unknown, these themes were not very widespread in the US interviews and they were largely absent from the discourse of Ukrainian women.

On the other hand, both US and Ukrainian interviews revealed the impact of commercial producers of formula. As discussed in Chapter 6, many women associated formula use with convenience, thus drawing on one of the arguments promoted vigorously by formula commercials. Even more important, women often reported that their decision-making was influenced by the promotional activities of baby-food companies. Even though no mother reported that she decided to use formula solely due to

advertising, a widespread comment was that a specific brand of formula was chosen due to company promotion. Women in both countries overwhelmingly reported that they chose specific brands of formula because those brands were used in maternity wards. The following reply by Tasha is rather typical, describing how she introduced supplementary formula when her child was two months old and Tasha was resuming full-time studies. When asked about whether she consulted her pediatrician about what specific formula to introduce, Tasha answered:

> No, and I've been - that's been on my to do list to call the pediatrician. But they gave me formula in the hospital, and he seemed to like it. So I didn't change. I've just been buying that brand. So they gave me Enfamil or something. They gave me that brand, so I've just been using that one. I haven't even asked my pediatrician because between his two-month appointment - was it two-month? – yeah, and now, we haven't seen them again. That's when I had to start formula. So I haven't even asked her what's the best one. I know I should have. (Tasha)

Very similar responses emerged in Ukraine. When I asked mothers how they chose the specific type and brand of formula that they were feeding to their infants, they repeatedly replied that they used whatever they were given in the maternity ward. For example, when I asked Nastia how she chose the formula that she used with her baby, she replied:

> We chose very easily. We fed him what they fed him in the hospital. I mean you would probably agree that when your child is several weeks old, trying to change formula might be hard on his stomach. Therefore I started giving him the same – I just asked them at the hospital what they fed him – and I simply bought the same formula. (Nastia)

Other mothers noted that they started feeding whatever formula they received as free samples, either through the mail or as part of the hospital "goody bag" given when they were discharged. Here is how Mya describes why she chose to use Similac.

> And the reason I got Similac is because I think I got a coupon at the beginning, or they gave me some free samples. And that's how I started with Similac, instead of anything else. But those first few months, after

> you have a baby, they give you so many coupons and all that stuff. So I didn't do a lot of research. Really, for me, it was just between Enfamil and Similac. I don't know. Similac, I got the free sample, we tried it, and it worked okay. (Mya)

Information materials provided by formula companies and other makers of infant-care products also played a role. Mothers in both samples informed me that they used company websites or promotional materials, such as received in the mail booklets, to find information about when to introduce specific foods to their infants. Allison is a typical example:

> And also I get like the little Huggies and Pampers little pamphlets in the mail with the coupons in it, and it has some tips there as far as feeding and different food, spoon-fed foods and baby foods to introduce during the year. I like those a lot because they're straight to the point. I don't like to flip through a whole magazine and try to find what I'm looking for. But yeah, yeah, I like those a lot. They help out a lot. (Allison)

Although Ukrainian mothers did not report receiving promotional materials in the mail, many received similar company-sponsored information booklets at hospital discharge, while others read the websites of baby food producers to find information on infant feeding.

> Well, at the discharge from the maternity wards they give you a lot of information materials, little booklets, leaflets. Well, many of those are also advertising materials, so Nestlé or Nasha Riaba promote their own products. But they indicate there when certain foods need to be introduced and at what quantities, something like that. (Julia)

I should note that no mother who was informed about exclusive breastfeeding until six months of age introduced supplements earlier because of recommendations in company information materials. However, several women who introduced supplements early due to pressure from relatives, medical personnel, or other factors, used company-produced guidelines about the specific foods that could be introduced at specific ages.

Zina told me that she started supplementary foods when her baby was four months old, based on a doctor's recommendation. The doctor recommended only vegetable broth but she also introduced cereals, based on company information – in this case, information given on the product itself. Zina noticed in the store that the cereal boxes stated that cereals could be introduced starting at four months.

> You see, our pediatrician recommended that I introduce vegetable broth at four months. But then as to baby cereals, four months is the earliest age – if you take for example Nestlé – when they indicate you can introduce cereals. So, I just went to the store and I saw baby cereals, and I saw that they were labeled as starting at four months and she was already four months. So, I bought [a box] and started giving them to her, and we liked them. (Zina)

These findings support hypothesis WSq1, indicating a number of mechanisms through which companies have an impact on infant feeding decisions. Such was not the case for hypothesis WSq2, which deals with Western cultural imperialism and resistance to Westernization. Here the argument is that formula feeding in less developed countries is often viewed as prestigious, modern, sophisticated, or high-class (Esterik 1989). But such scripts were completely absent from my Ukrainian interviews. There may be several reasons for this. One is the strong impact of Ukrainian culture, which views formula with suspicion and distrust as a form of artificial food or chemistry (Chapter 6). Even though formula feeding is widely practiced, it is considered inferior to breastfeeding and a method of "last resort" if breastfeeding is not feasible. This traditional Ukrainian preference for breastfeeding has been further reinforced by world-cultural scripts promoting breastfeeding. Another reason is that bottle feeding would be more readily viewed as prestigious in the context widespread absolute poverty, when the cost of formula is prohibitively high. In Ukraine, however, even though the cost of formula may

strain the family budget, it is still relatively affordable. For example, the price of a can of powdered formula in Ukraine varies between 18 UAH (for the Ukrainian brand, "Malysh") and 60 UAH for imported brands (about $2.25 to $7.50, at the time of writing). If a child consumes four cans per month, the total cost of formula would make up only about 8% of a monthly budget of 888 UAH, which is a current minimum monthly wage specified by Ukrainian law.

Contrary to hypothesis WSq2, I also did not find that Ukrainian women explained their use of breastfeeding as a way of resisting Western cultural imperialism. True, many mothers interviewed in Kiev associated the West with bottle feeding, believing that breastfeeding is less prevalent in the developed world. Here is one explanation as to why this might be the case:

> Why I think so? Because I think they have such [hectic] pace of life. Simply, mothers definitely want to work and they certainly do not stay at home with children for too long. Well, I think so. And then I know that they give birth at a later age. I mean, not at twenty or eighteen years old as we do, but there a woman gives birth at thirty or twenty-eight when she already has a career; and not everyone would agree to abandon a career for a child's sake. Well, I think so. I do not know exactly, I've never been abroad. (Nastia)

However, no mother I interviewed said that she chose breastfeeding because she did not like the Westernized practice of bottle feeding. Interestingly, I found such discourse only in relation to other practices. For example, one mother said that she preferred her children not to watch imported movies and cartoons because they are aggressive and of low cultural value. Other mothers preferred Ukrainian food products because they believed that the West dumps low quality food in Ukraine. Oxana was one of the mothers who preferred Ukrainian produce. When I asked her why she did not trust the imported products, she replied:

> Well, I do not have any trust because I know what kinds of foods those are. There [in the West], they have three categories of food products – the best and most expensive, average quality with various artificial additives, and the lowest quality. I mean there it is all precisely demarcated and people can choose appropriate products depending on what they can afford. But here they import the lowest quality groceries and advertise them as if they were the highest quality. I mean our importers bring in the worst as if it were the best or they do not separate the high quality groceries from the low quality and import poor quality products along with the good ones. (Oxana)

On similar grounds, some mothers preferred Ukrainian or Russian brands of formula because, as domestic products, they would have fewer artificial ingredients and they were more trustworthy since they had been used by several generations of Ukrainian children.

At least two reasons may explain why breastfeeding was not seen by these women as a mode of resistance to the Westernized practice of formula feeding. For one thing, even though Ukrainian mothers believed that Western mothers prefer the bottle, the practice of bottle feeding is not necessarily considered Western. As discussed in Chapter 5, supplementation with modified cow's milk or Soviet brands of formula has long been a widespread practice in the Soviet Ukraine. Another reason is that most of the women I interviewed simply took breastfeeding for granted and did not entertain other reasons, such as resistance to the West, for choosing it.

The Impact of Social Class

My findings about class support hypothesis WSq3: in both countries, mothers were aware of class differences in infant feeding. Additionally, these findings produce new insights concerning the transnational aspects of class dynamics in relation to infant feeding.

In Kiev and Atlanta, infant feeding practices not only differed by class but also served as an interpretive category that could be used to reinforce symbolic boundaries between classes (Lamont 1992; 2000). As mentioned previously, in the US, formula feeding is more prevalent among women of low socio-economic status, specifically for women who are less educated, younger, single, or African-American (Li et al. 2005). The mothers I interviewed in the US were well aware of these differences. The following excerpt captures this awareness well:

> And I don't know why I have this impression, but I do have this impression that people from lower-income families often use formula, and I don't - I don't know why that would be, but I have this impression that that is the case. And I don't know if there's - with a culture and maybe it's people that are in a low income also have family and stereotypical - and like societal influences telling them that they should formula feed for some reason, but I would - yeah, so again, I think it's two groups. I think it's people who go back to work shortly after they have a baby, and then maybe lower income groups. (Kristy)

This observation was also expressed inversely, recognizing that breastfeeding is more prevalent among women with higher SES.

> I would certainly say that more educated people and high socioeconomic groups are more likely to educate themselves about the benefits of different types of feeding. So I would say that probably more educated people are maybe more likely to breastfeed. I also think that more educated people are more likely to be more health conscious, in terms of what they eat themselves, and how their own lifestyles, so they're likely to be more educated about the benefits of breastfeeding, so yeah… (Alex)

In Ukraine a somewhat different situation obtained. As noted before, over ninety-five percent of Ukrainian mothers initiate breastfeeding, even though many women eventually introduce supplementary formula or switch to exclusive formula feeding. And Ukrainian mothers appear to be aware of this overwhelming preference for breastfeeding (as Katia said, "Well, I don't know. I think that for the first month most women

breastfeed. And after that, most do the combination" [of breastmilk and formula]). Despite the fact that my respondents in Kiev did not precisely associate breastfeeding or formula feeding with either working- or middle-class families, they almost uniformly believed that very rich people, the Ukrainian nouveau riche elites, predominantly use formula due to their lack of time and motivation to nurse newborns, who are usually cared for by nannies. One of my interviewees noted in this regard:

> They [the elites] formula feed because a woman should lead an active social life, therefore. And I also believe, I mean they use nannies who would feed with formula, who would take care of a child. And parents would at most stop by and play with a child. It seems to me that they pay less attention to children. (Liuba)

In sum, in Ukraine as in the US, attitudes toward infant feeding can be used to construct moral and symbolic boundaries among different classes. However, due to different socio-economic contexts obtaining in the two countries, these boundaries are demarcated in different ways. In Ukraine the fault line is between the upper class and the rest of the population, but in the US it is between the working class as opposed to other classes.

These interpretive differences notwithstanding, I found extensive intra-class similarities in the two countries. World-system theory traditionally emphasized differences between the same classes in the core and in the periphery – i.e., between core capitalists and peripheral capitalists as well as core workers and peripheral workers (e.g., Chase-Dunn 1998). Sklair (2001) has pushed for recognition of classes that transcend national boundaries, in particular a transnational capitalist class composed of executives of transnational corporations, globalizing bureaucrats and politicians, globalizing

professionals, and elite merchants and media executives, who share similar interests, life-styles, and education as well as the culture-ideology of consumerism.

Echoing Sklair's analysis, my findings point in the direction of increasing intra-class similarities at the transnational level, even though they do not suggest the emergence of a transnational class. Stated briefly, I found more affinities in infant feeding practices and discourse among middle-class mothers in the US and Ukraine than between middle- and working-class mothers within each country.

My findings in this chapter reveal similar patterns of infant feeding discourse and practice by middle-class mothers in the US and Ukraine. Awareness of world-cultural scripts promoting breastfeeding and exclusive breastfeeding was far more prominent among middle-class mothers than working-class mothers, and the practice of exclusive breastfeeding until six months of age was limited to middle-class mothers in both countries.

In addition, and again unlike working-class mothers, middle-class mothers in both countries engaged in the discourse and practice of rationalized parenthood. For them, motherhood was not an intuitive or traditional endeavor but a role to be learned based on modern medical science, psychology, and pedagogy. This rationalized approach made these mothers more likely both to become exposed to world-cultural scripts on breastfeeding, through their reading and research, and to follow the prescriptions of exclusive breastfeeding. Rationalized motherhood presupposes learning and using the most advanced techniques of childcare, and exclusive breastfeeding has become such an "advanced" technique as promoted by modern medicine and the World Health Organization.

I argue in the next subsection that such similarities are not incidental but can be explained by the general processes of rationalization involved in globalization as well as by similar educational patterns and lifestyles.

Discussion

In this section, I considered findings related to three world-system hypotheses. Overall, my results indicate no impact of Western cultural imperialism or resistance to Westernization and relatively little impact of women's resistance to consumerism, but they point to the importance of baby food producers and social class. The findings concerning the effects of social class, however, are not completely explicable within the world-system theory framework and require theoretical elaboration.

The fact that neither Western cultural imperialism nor resistance to Westernization had a discernible impact on Ukrainian mothers' infant feeding discourse and practices may be specific to the Ukrainian context, where breastfeeding is taken for granted and formula is relatively affordable. Ukrainian mothers need not "search" for justifications for breastfeeding; indeed, they do not usually consider it a matter of choice, so a factor like cultural imperialism is irrelevant. It is also the case that Ukrainian women do not perceive formula feeding as a Western practice since it was common for a long period during the time of the Soviet Union. These mothers also did not choose to use formula due to its prestige, as predicted by the cultural imperialism hypothesis. To them, formula feeding was hardly prestigious because it was relatively cheap, and in any case it is seen only as a backup method. It may nonetheless be the case that in a different context, e.g., a country with many people living in poverty and a history of colonialism,

cultural resistance to Westernization and Western cultural imperialism would be a more significant factor (Esterik 1989).

On the other hand, women's resistance to commodification had some impact on their infant feeding decisions and attitudes. Some mothers were aware of the infant feeding controversy of the 1970s and the Nestlé boycott; others disparaged the aggressive marketing practices of baby food companies. Several women noted that their aversion to the marketing of formula made them more inclined to breastfeed. These findings indicate that resistance may be a factor in some women's infant feeding decisions, but it appeared to play a minor role compared to that of such factors as the health advantages of breastfeeding, convenience associated with formula, availability of support, opinions of relatives and friends, and so on. Even in those cases when women mentioned resistance, it was not presented as having a major influence on their decisions.

I found stronger support for the world-system theory prediction regarding the role of transnational producers of baby food. Even though it does not appear that companies' activities directly shaped women's key infant feeding decisions, I found indirect effects regarding the specific brands and types of formula to use or the specific foods to introduce at specific age. Most women who supplemented with formula in the hospital eventually either reintroduced it to supplement breastfeeding or switched to exclusive formula feeding. Given that some hospitals, especially in Ukraine, routinely use formula supplementation without clear medical indications, it seems likely that promotion in hospitals represents one of the most powerful mechanisms of company impact.[60] Another mechanism is company-produced information materials and baby food packaging that

[60] ICMBS prohibits promotion of formula in hospitals. However, neither Ukraine nor the US has adopted ICMBS-based national legislation.

promote the early introduction of food supplements. My findings show that women use these materials and, in the absence of information about the advisability of exclusive breastfeeding until six months of age, they thus may be guided to introduce supplements early.

Finally, as predicted by world-system theory, I found an impact of social class. First, in both countries women used the rhetoric of infant feeding as a symbolic marker of class boundaries. Second, I found extensive homogeneities in infant feeding discourse and practices among middle-class women in the two countries. Such similarities, however, are not well understood within world-system theory, which usually emphasizes differences in the nature of the same classes in the core and in the periphery (Chase-Dunn 1998). Albeit Sklair (2001) has addressed transnational class similarities, his focus is limited to the capitalist class.

My findings are better understood within a theoretical perspective developed by Hannerz (1992). Hannerz argued against fixed core-periphery relationships and simple scenarios of either cultural diversity or global homogenization. Instead, he developed a creolization scenario whereby cultures in both core and periphery represent creative mixtures of the global and the local. Within such creolized cultures, transnational cultural influences do not reach all population groups equally, implying that "cultural diversity tends now to be as great within societies as it is between them" (Hannerz 1992: 231). Hannerz argued that, within societies, different professions and social groups have differing degrees of integration into the world-system and differing degrees of access to transnational cultural flows, so that in one extreme we find, for example, peasants who are mostly embedded in local culture and, in the other extreme, bank managers who are

fully conversant with transnational cultural flows. The result is that increasingly "we find the cultural differences within societies, rather than between them. If you look within some society for what is most uniquely distinctive, you will perhaps look among peasants rather than bank managers, in the country rather than in the city, among the old rather than the young" (Hannerz 1991: 126). In other words, the increasing cultural homogeneity around the globe can be found among those social groups that are more embedded in global culture but not so much among groups whose cultural milieu is primarily local.

Extending Hannerz's argument, I propose that homogenization may have a class dimension, with the middle class being in general better embedded in world culture than the working class. This does not entail the emergence of a transnational middle class sharing common consciousness and a sense of shared interests; instead, I hypothesize that middle class membership increases the likelihood of individual embeddedness in world culture, for several reasons. Most basically, the homogeneities among middle-class mothers can be explained by similarities in their educational patterns and lifestyles. The post-industrial middle-classes are usually defined as college-educated managers and professionals involved in mental labor (Embong 2000; Kivinen 1989; McAdams 1987; Rose 1997; Urry 1973). Homogeneity is greatly helped by the fact that higher education is increasingly standardized around the globe (Frank and Meyer 2007; Schofer and Meyer 2005). Also, due to their higher levels of income, middle-class members have more access than the lower classes to transnational cultural flows via such mechanisms as international travel and tourism, satellite television, and computers with high-speed Internet connections.

On a more fundamental level, middle-class members may also be better equipped to engage with world-cultural scripts. Recall that middle-class mothers were more likely to adopt the rationalized parenting approach, which leads to greater exposure to world-cultural scripts promoting breastfeeding. These findings accord with Max Weber's (2002) analysis depicting the middle class as historically connected to the development of the modern rationalization ethos. The middle class has been the focus and a primary driving force of the process involving the rationalization of personality, defined as stable moods and dispositions characteristic of the "methodical conduct of life" (Habermas 1981: 166).

In this regard, Bourdieu's (1990) concept of habitus may be useful. The habitus is the set of cognitive schemes of perception, appreciation, and action shared by social agents having similar conditions of existence. In the terms developed by Bourdieu (e.g., Bourdieu 1984; Bourdieu and Thompson 1991), it can be said that the middle class has developed a rationalized habitus, meaning schemes of perception, appreciation and action specifically aimed at the methodical conduct of life guided by modern knowledge systems.

According to Bourdieu (1984), however, the habitus is connected to the reproduction of class relations. He theorized that the upper class habitus includes learned dispositions that facilitate mastery of societally valued "high culture" (e.g., fine arts and literature). In turn, this "proficiency in the consumption of and discourse about generally prestigious – that is institutionally screened and validated – cultural goods" (DiMaggio 1991: 134) results in positive outcomes for the upper class individuals: their knowledge of high culture serves as a passkey to elite networks and opportunities, which eventually may result in social and economic gains. High culture emerged within European

aristocratic circles and the haute bourgeoisie, and these groups were the first to develop the cognitive schemas necessary to engage with high cultural goods. Even though in modern times, fine arts, literature and music have become increasingly available to people in all social classes, upper class members still maintain advantages in their ability to decipher high cultural symbols. The cognitive schemas of "high cultural" habitus are passed down the generational ladder.

By analogy, we can extend the logic offered by Bourdieu to include middle-class reproduction. Since the rationalized habitus emerged in association with the middle class, it can be hypothesized that middle-class members still have a competitive advantage over other classes in their engagement with rationalized, expert-produced systems of knowledge. Thus, middle-class mothers may possess learned dispositions and cognitive schemas that make them more likely to look for expert advice and techniques based on science rather than rely on intuition and traditional wisdom when making their parenting decisions.

Moreover, these processes are amplified by factors involved in globalization. According to world-polity theory, world-cultural scripts are heavily "oriented to intellectual, technical and economic rationalization" (Boli and Thomas 1999: 45). Cultural globalization entails expansion of the Western cultural account, with its emphasis on formal rationality (Meyer et al. 1987). In addition, world-cultural models reflect the systems of rationalized knowledge produced by INGOs, IGOs, and states as well as sciences, experts, and professionals (Meyer et al. 1997). In short, world culture promotes greater rationalization of action by various social actors as well as the legitimation of rationalized knowledge at the global level.

I can thus hypothesize the following dialectical process. Given their rationalized habitus, middle-class members may be more receptive to processes of rationalization inherent in world culture, which makes them even better equipped to engage with rationalized knowledge produced at the world-cultural level. In other words, world culture promotes the rationalization of parenthood but social class serves as an intervening variable, making middle-class mothers more likely to assume rationalized rather than traditional or intuitive approaches to motherhood. In turn, rationalized motherhood increases the likelihood that an individual will consciously seek out expert knowledge about child care and development, including knowledge institutionalized at the global level.

CONCLUSIONS

In this chapter, I have considered complex processes through which factors involved in economic and cultural globalization affect infant feeding discourse and practice. My analyses not only showed the significant impact of global factors, but also uncovered specific mechanisms through which these factors are mediated by local institutional contexts, micro-level interactions, and women's personal circumstances. I showed that both world-polity and world-system variables have an impact, with world polity having somewhat stronger effects at the level of individual decision-making.

I have argued that women's key infant feeding decisions – whether to breastfeed, formula feed, or do a combination of both, and when to introduce supplementary foods – were significantly influenced by various world-cultural scripts, but only to a limited degree by such world-system variables as commodification/resistance to

commodification and Westernization/resistance to Westernization. While the activities of transnational infant food producers undoubtedly affect infant feeding practices, these effects are better understood at the institutional rather than the individual level via such mechanisms as the promotion of formula samples through hospitals. Finally, social class, another variable identified by world-system theory, had significant but somewhat unexpected effects in the way it mediates the impact of world-cultural scripts. These findings are summarized in Table 11 below.

Table 11. Summary of Findings

	Ukraine	USA
World-polity impacts	Choice dilemmas: exclusive breastfeeding v. early supplementation. Prevalent scripts: "propaganda" of breastfeeding, advantages of breastfeeding, WHO/UNICEF recommendations. Weakening impacts: interactions with family and friends, dependence on grandmothers, community embeddedness. Facilitating impacts: middle-class, embeddedness in world-culture. Mechanism: rationalization of parenthood.	Choice dilemmas: formula feeding v. breastfeeding, length of breastfeeding. Prevalent scripts: advantages of breastfeeding, naturalness of breastfeeding, WHO/UNICEF recommendations, sacralization of children. Weakening impacts: employment, interactions with pediatricians, personal circumstances. Facilitating impacts: middle-class, social support. Mechanism: rationalization of parenthood.
World-system impacts	• Low degree of resistance to commodification. • No evidence of resistance to Westernization in infant feeding. • Impacts by TNCs: choice of specific brands of formula, earlier introduction of supplements.	• Higher degree of resistance to commodification. • Impacts by TNCs: choice of specific brands of formula, earlier introduction of supplements, beliefs about convenience of formula.

Both in the US and Ukraine, mothers' infant feeding discourses and practices were influenced by world-cultural scripts, but with important contextual differences.

Women in the two countries faced different dilemmas of choice, experienced dissimilar pressures from their environments, and were influenced by different world-cultural scripts.

In Ukraine, where breastfeeding has long been considered the preferred method of infant feeding, world-cultural scripts promoting breastfeeding were reflected in women's discourse but did not introduce a choice dilemma. Mothers were cognizant of the health advantages of breastfeeding highlighted by world-cultural scripts and of national and international programs promoting breastfeeding. However, they did not consciously "choose" breastfeeding because of these benefits; they simply "started" breastfeeding as a matter of course. On the other hand, the world-cultural script for exclusive breastfeeding, which goes against the grain of the Ukrainian tradition of early supplementation, entailed explicit decision-making by Ukrainian mothers.

In the US, where formula feeding has long been prevalent, mothers' major dilemmas of choice were provoked by scripts promoting breastfeeding. Most US women were exposed to world-cultural scripts promoting breastfeeding and were well aware of the benefits of breastfeeding. These scripts were further reinforced by the scripts of the sacralization of the child and the naturalness of breastmilk. Therefore, despite their preference for the rationalized advantages of formula, most US mothers consciously choose to initiate breastfeeding. On the other hand, the scripts of exclusive breastfeeding were less widespread and not the source of intensive decision-making. Women exposed to these scripts tended to use exclusive breastfeeding unless recommended otherwise by their pediatricians or prevented from breastfeeding exclusively due to employment.

Both in the US and Ukraine, the impact of world-cultural scripts was further mediated by women's socio-demographic characteristics, personal circumstances, and micro-level interactions. In Ukraine, the impact of world-cultural scripts on exclusive breastfeeding was weakened by women's low SES and employment as well as by dependence on older relatives and embeddedness in local communities, the latter two factors supporting the Ukrainian model of early supplementation. In the US, the impact of world-cultural scripts on exclusive breastfeeding was weakened by women's low SES, employment, and unsupportive medical advice. On the other hand, interactions with relatives or friends had at least a weak positive effect, reinforcing the world-cultural scripts, since mothers tended to communicate with like-minded women from life-style enclaves rather than their local communities.

These findings shed light on specific mechanisms through which factors stemming from the world polity influence individual actors. Even though scholars have begun to pay attention to world-polity effects on individuals (e.g., Boyle et al. 2002; Schofer and Hironaka 2005), world-polity theory has traditionally focused on the effects on larger units, such as states and organizations. In this chapter, I have identified a set of conditions under which world-cultural scripts became constitutive of individual decision-making. Without denying the significance of world-polity processes that affect nation-states, my findings suggest that world-cultural scripts can have direct effects on individuals. Although both US and Ukraine implemented a number of international policy initiatives supporting breastfeeding and exclusive breastfeeding, not all of the women I interviewed learned about exclusive breastfeeding via state programs or the

health care system. Furthermore, not all women were equally positioned to gain exposure to world-cultural scripts favoring exclusive breastfeeding and thus to be affected by them.

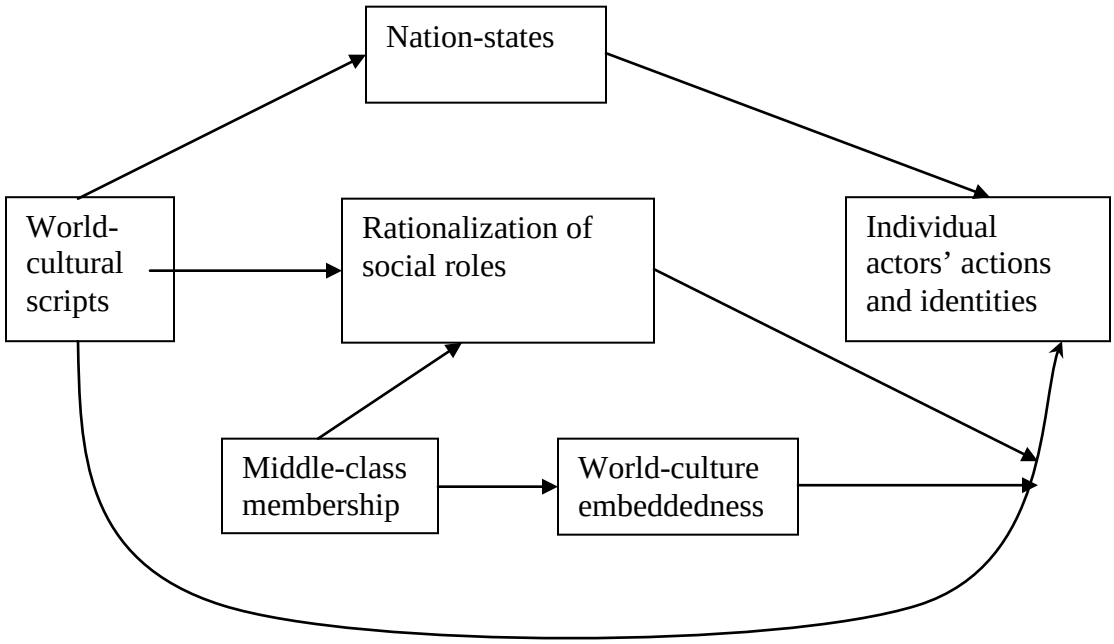
In Ukraine, women who were financially well off, independent of their families, and embedded in international networks by working for TNCs, knowing the English language, traveling internationally, and using the Internet were more likely both to be exposed to the scripts for exclusive breastfeeding and to heed their advice. For these women, rationalized motherhood was a key mechanism through which world-cultural scripts were constitutive of their infant feeding decisions. In the US and Ukraine, middle-class mothers were more likely than working-class mothers both to encounter the world-cultural scripts and to abide by them; here again, rationalized motherhood is a significant element.

My theorization and findings lead me to the following model of world culture's impact on individuals (Figure 6 below). In response to world-cultural scripts promoted by the pro-breastfeeding movement and many organizations, the US and Ukraine launched various programs of breastfeeding support, such as the Baby-Friendly Hospital Initiative, which encourages women to initiate breastfeeding (Bartington et al. 2006). But states are not necessary for world culture to affect individuals; they can also be exposed to world-cultural scripts through many other mechanisms, such as expert-produced literature, the Internet, campaigns by INGOs, and the like. I have argued that world culture has a built-in mechanism that promotes individual exposure to world-cultural scripts. This mechanism is the rationalization of social roles and identities inherent in world culture. World culture legitimates not only expert knowledge but also scripts for proper actorhood based on modern science rather than tradition. Mothers who practice

rationalized parenthood are more likely to search actively for expert information on infant feeding and thus to come across the world-cultural scripts favoring exclusive breastfeeding. These processes, however, are mediated by social class, with middle-class membership increasing the likelihood that the individual is both exposed to rationalization of social roles and embedded in world culture. In conclusion, a quote by a US mother represents a good illustration of the active search for expert-produced knowledge discussed in the above model.

> Well, I wanted to wait [introducing solids] until after six months and that was, again, after doing research into the kind of development of his colon and his digestive system… It was mostly research. Talking with other moms a little bit, but mostly other moms who have read from the same stuff. I read a lot of Jack Newman and I believe that he's a very knowledgeable breastfeeding expert. And the Dr. Sears' library, and I trust those as sources, and they both supported waiting until six months. (Katie)

Figure 6. Impacts of World-Cultural Scripts on Individuals



CHAPTER 8

CONCLUSIONS

Over the past thirty years, infant feeding methods have become an important item on the international agenda, increasingly viewed by policy-makers as global in its implications and reach. Here is what the World Health Organization (WHO 2011b) says about infant feeding on its website:

> Infant and young child feeding is a key area to improve child survival and promote healthy growth and development. The first two years of a child's life are particularly important, as optimal nutrition during this period will lead to reduced morbidity and mortality, to reduced risk of chronic diseases and to overall better development. In fact, optimal breastfeeding and complementary feeding practices are so critical that they can save the lives of 1.5 million children under five every year.

Infant feeding is global not only in its implications; it is increasingly shaped by factors involved in globalization. Mothers' infant feeding decisions and practices reflect not only their physiological, psychological, and socio-demographic characteristics, as well as interactions with family members, friends, and health care professionals, but also the impact of increasing McDonaldization of societies, advertising campaigns by transnational corporations, educational campaigns by breastfeeding-advocacy INGOs, international policy initiatives promoting breastfeeding, and the advice given in international parenting books.

In this study, I ask whether global economic, political, and cultural factors affect national rates of exclusive breastfeeding of infants up to six months of age. I also investigate whether and how global factors affect infant feeding decisions in the US and Ukraine. Here I first review my quantitative findings regarding national rates of exclusive breastfeeding as well as qualitative analyses of sixty interviews with mothers of infants in

the US and Ukraine. I then discuss the theoretical and policy implications of these findings. Last, I outline possible further directions for this research.

Summary of Main Findings

In Chapter 4, I use regression analyses to test hypotheses about the impacts of global cultural, political, and economic factors on national rates of exclusive breastfeeding of infants up to six months of age. The results show that global factors have significant but contrasting effects on national rates of exclusive breastfeeding: greater McDonaldization and greater integration into the world economy have negative effects, while greater participation in world society has a positive effect.

More specifically, the results support the world-system theory hypothesis that greater integration into the world-economy is associated with decreased breastfeeding rates via the expanded use of baby food and infant formula. These results also partially support the McDonaldization theory hypothesis that greater McDonaldization is associated with lower breastfeeding rates due to increased cultural emphasis on the efficiency, predictability, calculability, and control provided by infant formula and commercial baby foods. Contrary to the theory, the medicalization of societies – an important but distinct component of McDonaldization – has a positive effect on exclusive breastfeeding. This result is due, it seems clear, to the increasing advocacy for breastfeeding within the medical profession itself since the 1970s. Finally, these analyses support the two key hypotheses of world-polity theory. Greater integration into the world polity (as distinguished from the world economy) is associated with higher rates of exclusive breastfeeding, which is explained by the impact of world-cultural scripts

promoting breastfeeding. This effect is mediated by countries' adoption of ICMBS-based laws, which increase the rate of exclusive breastfeeding but only for countries where the laws have been in place for fourteen or more years.

In Chapter 5 I shift my focus from worldwide patterns of infant feeding to the specific cases of the US and Ukraine, examining how global processes interact with local socio-cultural institutions. My analysis shows that, Ukraine had long had its own "dietary" model of infant feeding, which presupposed breastfeeding with the early introduction of various foods and liquids[61]. This dietary model began to change in response to global forces that swept into Ukraine after independence in 1991. Numerous international brands of formula and baby food products entered the Ukrainian market, while strong world-cultural scripts promoting breastfeeding and exclusive breastfeeding made inroads. Under the impact of the international policy initiatives, such as the UN Convention on the Rights of the Child or UNICEF/WHO Baby Friendly Hospital Initiative (BFHI), the Ukraine launched several national programs promoting breastfeeding, appointed a national breastfeeding committee, and started assessing Ukrainian hospitals for certification as Baby-Friendly. Most important, the Ukrainian Ministry of Health endorsed the WHO/UNICEF model of exclusive breastfeeding, eschewing its earlier recommendations supporting the early introduction of supplements.

In contrast to Ukraine, where breastfeeding was the norm throughout the twentieth century, in the US formula feeding dominated between the 1950s and 1970s. Nevertheless, the US has also experienced the impact of world-cultural scripts promoting

[61] Common practice and medical advice supported the introduction of water from birth, fresh fruit juices at three weeks of age, vegetable broths at one month, or boiled egg yolks at two months. Also, it was not uncommon to supplement with diluted cow milk or Soviet brands of formula due to such factors as hospital practices that disrupted successful establishment of lactation, early return to employment, or fear of insufficient breastmilk production.

breastfeeding and exclusive breastfeeding. Such international policy initiatives as WHA goal of *Health for All by the Year 2000,* the Innocenti Declaration, or BFHI resulted in the USA's adoption of national policies and programs promoting breastfeeding – e.g., goals for breastfeeding in *Healthy People 1990* and later editions through 2010, or the US Surgeon General's "Blueprint for Action on Breastfeeding." Gradually, the US medical profession changed its attitude to infant feeding from condoning or recommending formula (Apple 1987) to supporting breastfeeding.

Chapter 5 adds depth to the findings in Chapter 4 by highlighting contrasting impacts of global factors. The increasing openness of Ukraine to global structures and processes did not have the simple result of increasing consumption of international brands of infant formula and baby foods; it also entailed greater exposure to world-cultural scripts promoting breastfeeding. In the US, which is at the center of the processes of McDonaldization (Ritzer 1993), formula feeding is no longer as prevalent as it was before the 1970s. This reversal of the upward trend in formula feeding coincided with the development in the 1980s of world-cultural scripts promoting breastfeeding.

Chapter 6 turns to qualitative analyses of my interviews with US and Ukrainian mothers, focusing on the impacts of rationalization and McDonaldization. The interviews reveal that, although efficiency criteria associated with McDonaldization were present in women's infant feeding decisions and discourse, their impact was limited by other factors, such as local institutions and world-cultural scripts promoting breastfeeding.

In Ukraine, with its lower level of rationalization, mothers were less likely to apply a rational choice framework or McDonaldization criteria to their infant feeding decisions. Most conscious decisions concerned only commercially produced baby foods.

For those women who chose to use such foods, their decisions were guided, as predicted, by considerations of efficiency. However, none of the Ukrainian mothers chose to use formula on the basis of McDonaldized criteria; it was introduced only when breastfeeding did not work out. These findings are partially explained by specific features of the Ukrainian context, where breastfeeding has long been taken for granted and rationalization is relatively low. While Ukrainian mothers recognized the greater efficiencies associated with formula, they nonetheless perceived breastfeeding as a more convenient and desirable method. My inference is that, despite increasing McDonaldization of society, world-cultural scripts promoting breastfeeding contributed to Ukrainian women's general preference for breastfeeding.

In the US, McDonaldization was also more influential with regard to decisions about supplementary foods rather than formula but important cultural differences obtained. With its higher level of rationalization and cultural norms favoring formula feeding, the US context is more conducive to rational decision-making and conscious choices regarding breastmilk vs. formula. The US women were also more likely to perceive formula feeding as a more convenient and efficient method than breastfeeding. Nevertheless, all but one mother chose to initiate breastfeeding due to its health advantages. Even though some of these women eventually introduced supplementary formula on the basis of efficiency criteria,[62] the impact of McDonaldization in the US, as in Ukraine, was weaker than predicted. Here again, I believe that this unexpected outcome is due to the impact of world-cultural scripts promoting breastfeeding. Despite their belief in the convenience of formula, the US mothers strived to initiate and, when

[62] A total of twenty-two infants ever received formula in my US sample. However, in most cases mothers introduced formula for reasons other than efficiency, such as problems with lactation or employment.

possible, to maintain breastfeeding under the influence of information about the advantages of breastfeeding and, in some cases, recommendations by WHO/UNICEF.

Chapter 7 explores globalization's effects on individual infant feeding decisions and discourse with respect to world polity and world-system factors. The effects are substantial, particularly for world-polity factors. While the effects of world-system variables are also substantial, they are better understood at the societal level.

Among the world-system factors, resistance to commodification, even if present in mothers' infant feeding discourse, played only a minor role in infant feeding decisions for both US and Ukrainian mothers; health considerations, convenience, and personal circumstances were more important factors. On the other hand, the activities of transnational producers of formula, as predicted, had non-negligible but indirect effects. For example, those infants in my sample who received formula in the hospital were likely to continue to receive supplemental formula at home. Thus, promotion of formula through hospitals was one of the strongest mechanisms by which commercial efforts have an impact. However, this impact was not associated with the conscious choice by mothers to use formula. I therefore see the effects of transnational corporations operating more at the institutional rather than the individual level.

Social class is another variable that world-system theory expects to affect infant feeding decisions. In line with the theory, women in both the US and Ukraine used the rhetoric of infant feeding as a symbolic marker of class boundaries but contextual dissimilarities obtained, leading to different types of boundary demarcation: in Ukraine, between the upper class and the rest of the population, but between the working class as opposed to all other classes in the US. Second, I found extensive homogeneity in infant

feeding discourse and practices among middle-class women in both countries. This latter finding is better understood through perspectives other than world-system theory, i.e., macro-anthropological analyses of globalization or Bourdieu's (e.g., 1984) theorizing regarding cultural capital. In addition, I found, somewhat unexpectedly, that social class is a variable mediating the impact of world-cultural scripts, as I discuss below.

Both US and Ukrainian mothers' infant feeding decisions and discourse reflected numerous world-cultural scripts, albeit with considerable cultural differences. In Ukraine, with its lower degree of cultural individualism, world-cultural scripts about the sacralization of the individual were absent from mothers' discourse, while scripts about the advantages of breastfeeding, "propaganda" promoting breastfeeding, and WHO/UNICEF recommendations were widespread and influential. In the US, on the other hand, women invoked a greater variety of world-cultural scripts – about the naturalness of breastfeeding, sacralization of the child, the advantages of breastfeeding, and WHO/UNICEF recommendations. Since formula feeding had long been prevalent in the US, one of the key dilemmas that these scripts produced was the choice between breastmilk and formula. In contrast, in Ukraine, where breastfeeding has been the norm, world-cultural scripts provoked dilemmas of choice between the traditional model of breastfeeding with early supplementation and exclusive breastfeeding until six months of age, as recommended by WHO/UNICEF.

World-cultural scripts also had varying effects on individual caretakers. I found that women's socio-demographic characteristics, personal circumstances, and micro-level interactions mediated the impact of these scripts. In Ukraine, women were more likely to heed the recommendation of exclusive breastfeeding if they were more deeply embedded

in world culture – if they spoke English, traveled abroad, or worked for TNCs. In contrast, the impact of world-cultural scripts was weaker for women of lower SES who are embedded mainly in local communities and dependent on older relatives, who generally are supportive of the Ukrainian traditional model of breastfeeding with early supplementation. In the US, the impact of world-cultural scripts supporting breastfeeding or exclusive breastfeeding was weakened by low SES, employment, and contradictory medical advice and prescriptions. In both countries, however, the rationalization of motherhood was a key mechanism affecting world-cultural impact. Mothers who perceived parenthood as a learning process that should be guided by scientific or professional research were more likely to seek out information on infant feeding and thus to come across world-cultural scripts promoting breastfeeding and exclusive breastfeeding.

These findings offer initial answers to the theoretical and empirical puzzles that served as an impetus for this dissertation. The worldwide trend toward higher breastfeeding rates can be explained by the growing strength and legitimacy of world-cultural scripts promoting breastfeeding. The effects of global factors are mediated by specific national contexts, which introduce such variables as varying degrees of cultural individualism, different policies and legislation related to infant feeding, class and family structures, and historically available models of infant feeding. Even greater complexity obtains at the level of individual parents, who are increasingly embedded in both local and world cultures, social networks, and families. Nevertheless, my findings strongly suggest that global factors increasingly matter for individual infant feeding decisions.

Theoretical Implications

I turn now to the theoretical implications and contributions of this research. I have presented four sociological approaches to the global analysis of infant feeding – McDonaldization, world-polity, world-system, and macro-anthropological theories. I have also used the world-culture perspective as an overarching theoretical framework that offers a possibility of synthesizing, or at least encouraging a dialogue among, these different theories in our efforts to make sense of diverse global cultural processes.

As a contribution to world-culture theory, my findings show that global patterns of infant feeding are the result of a complex interplay of various factors noted by the different theories – cultural, economic, and political. Pregnant with cultural meanings and traditions, infant feeding practices around the globe strongly reflect the activities of transnational corporations as well as international policy initiatives, among other factors. I emphasize the cultural aspects of such globalization factors, and the most important implications of the dissertation relate to theories focusing on culture, particularly world-polity theory. Here I provide a detailed discussion of the implications for world-polity theory, as well as for conceptualizations of rationalization and for the literatures on identity and motherhood.

World-Polity Theory

My work extends world-polity theory by filling in two important gaps – the paucity of research concerning world-cultural effects on individuals, and the lack of attention to inequality in world society.

One of the fundamental propositions of world-polity theory is that world-cultural scripts constitute various social actors – nation-states, organizations, and individuals (Meyer et al. 1987). However, with few exceptions (e.g., Boyle et al. 2002; Schofer and Hironaka 2005), most empirical research focuses on states and organizations. This study not only supports the hypothesis that individual actors' decisions and practices are subject to influence by world-cultural scripts, but also suggests specific mechanisms for that influence. In Chapter 7, I proposed a theoretical model of world culture's impact on individuals (see Figure 6, page 263).

Even though world culture might seem remote or irrelevant to everyday life for most people, my findings reveal its growing power to shape even such mundane activities as infant feeding. World-cultural scripts become the stuff of everyday life, finding their way to individuals through state policies and programs, web sites, newspapers and magazines, international best-selling books by experts and professionals, and educational campaigns by INGOs. Thus, the WHO/UNICEF recommendations on breastfeeding reached mothers in the US and Ukraine through multiple and sometimes overlapping routes. For some women, state-sponsored programs supporting breastfeeding were the key mechanism of exposure – they learned about exclusive breastfeeding from health care professionals, such as the staff in Baby-Friendly hospitals or pediatricians. But states are not crucial for world culture to affect individuals; many mothers came across the WHO/UNICEF recommendations in parenting books, magazines, or web sites.

It should be noted, however, that the impact of world-cultural scripts is mediated by local socio-cultural contexts. Individuals engage with world-cultural scripts through cognitive schemas supplied by their native cultures. Nation-states may serve as

moderators for world culture as well, to some degree, by amplifying the significance of some scripts while diminishing the importance of others. In Ukraine, for example, women engage with world-cultural scripts by drawing on local cultural schemas that favor both breastfeeding and early supplementary foods and liquids. The major dilemmas of choice in Ukraine are due to world-cultural scripts promoting exclusive breastfeeding, which is counter to Ukrainian tradition. The Ukrainian state amplifies the impact of world-cultural scripts, as many mothers recognize the effects of government "propaganda" in favor of breastfeeding.

Skeptics may question this argument by asking, when do world-cultural scripts matter? Under which conditions do individuals follow the prescriptions of world culture rather than those of local tradition, self-interested action, or the advice of relatives and friends? My work shows that, in the case of infant feeding decisions and practices, world-culture's impact is weakened by some personal circumstances (poor health conditions, early return to employment), micro-level interactions with relatives and friends who invoke local tradition against global prescriptions (Ukraine) or health professionals (USA), and low socio-economic status, which in Ukraine is associated with increased dependence on others and thus diminished capacity for autonomous decision-making. While these variables may be specific to the case of infant feeding, they may be generalized in the form of several interconnected conditions that increase the impact of world-cultural scripts.

First, individuals' greater embeddedness in world-culture increases both exposure to and the impact of world-cultural scripts. In Ukraine, mothers who traveled abroad, spoke English, or worked for international companies were more likely to come across

and heed world-cultural scripts prescribing exclusive breastfeeding. As Hannerz (1992) argues, individuals are variably engaged with world-cultural flows: "locals" have low engagement, while "cosmopolitans" are highly engaged. Cosmopolitans are more likely to follow the prescriptions of world-cultural scripts, as they are more willing to engage with the "Other" and are in a better position to question the presuppositions of their native cultures (ibid.).

Second, individuals who subscribe to rationalized rather than traditional social roles are more likely to be exposed to and affected by world-cultural scripts. People who learn how to pursue self-fulfillment â la popular psychology books, husbands and wives who reexamine their roles after sessions with marriage consultants, mothers and fathers who learn parenting techniques from parenting magazines and pediatricians rather than their own parents are more likely to come across world-cultural scripts and follow them. Women in both the US and Ukraine who approach mothering as an endeavor based on modern science and professional knowledge are more compelled to seek out the latest research and information on various aspects of child health, development, and care, including infant feeding. Notably, modern science is increasingly globalized and interconnected (Drori 2003; Schofer 2003), and therefore it is common for the parenting literature to cite international research, such as research and recommendations on breastfeeding by the World Health organization. Hence, those mothers that seek information based on science are more likely to come across world-cultural scripts. Moreover, in Chapter 7 I noted a dialectical relationship: the rationalization of social roles that is inherent in world culture legitimates not only expert knowledge but also

scripts for proper actorhood based on modern science rather than tradition (Meyer et al. 1987). In turn, rationalized social roles amplify the effects of world-cultural scripts.

Third, middle-class membership makes individuals more likely both to be more deeply embedded in world-culture and to subscribe to rationalized social roles, which in turn increase world culture's effects. Due to their higher levels of income, middle-class members have more access than the lower classes to transnational cultural flows via such mechanisms as international travel and tourism, satellite television, and computers with high-speed Internet connections. Middle-class individuals are also more in touch with world culture by virtue of their higher education, which is increasingly standardized around the globe (Frank and Meyer 2007; Schofer and Meyer 2005). In addition, given their relatively highly rationalized habitus (Bourdieu 1984), middle-class members are better equipped than the working classes to engage with highly rationalized world-cultural scripts.

This last finding regarding the mediating role of middle-class status has another important implication for world-polity theory, which has been criticized for its lack of attention to inequalities in world society (Beckfield 2010; Thelen 1999). My findings partially address this issue, introducing inequalities based on social class.

Social Identity and Motherhood Literatures

My findings also have important implications for our understanding of processes of identity construction. In this study, I originally introduced the concept of identity within the world-polity theory framework, which assumes that identity construction is an important mechanism of world-cultural impact. To explain how world culture affects

individual identities, the theory uses the concept of "rationalized others" (Meyer 1994), which builds upon and extends the notion of "generalized others" developed by Mead (1936) and used by symbolic interactionist approaches (e.g., Milkie 1999). These approaches assume that identity arises through interaction with others; people construct their selves taking into account how "others" view them. For example, a woman may believe that she is a "good mother" based on remarks from her family and friends. Furthermore, when constructing their identities individuals take into account not only the opinions of people they personally know, but also the imagined response from the "generalized other," or the social group as a whole, to which they belong. A woman may also believe that she is a good mother because she does breastfeeding and breastfeeding is usually expected of good mothers by people of her social circle.

World-polity theory extends this approach, assuming that social actors increasingly take into account opinions of "rationalized others," that is modern professionals, scientists, experts, consultants, and so on. The theory has employed this construct mostly in relation to nation-states, but my study shows that a similar mechanism applies at the individual level. This finding has important implications not only for world-polity theory but also for the literature on identity construction: it shows the importance of world-cultural scripts for individual identity construction, thus linking the global to the most "local."

I suggest that, along with "generalized others," "rationalized others" are an increasingly important reference point for individual identity construction. I found that women in both the US and Ukraine rely on expert-produced literature and advice in their search for motherhood models and techniques. Since science is ever more globalized and

interconnected (Drori 2003; Schofer 2003), expert literature and advice are progressively more world-cultural in character. Thus, when constructing their motherhood identities, women are influenced not only by interactions with family and friends, and by local cultural representations of proper motherhood, but also by the expert opinions of "rationalized others" which reflect world-cultural scripts about parenting and mothering.

Rationalization: "The Good, the Bad, and the Ugly"

My findings in Chapter 6 partially support Ritzer's thesis of McDonaldization "as a centrally important process that persists in growing exponentially and in extending its reach to various domains of the social world as well as geographic areas throughout the globe" (Ritzer 1998: 2). My analyses have shown that the logic of McDonaldization applies to yet another domain, the seemingly personal and intimate realm of infant feeding. Moreover, these findings resonate well with Ritzer's (1993; 1996) argument that even such inherently soulful processes as birth and death are not free from the "iron cage" of rationalization. Yet my study points toward some routes of escape.

First, the case of infant feeding indicates that processes of de-McDonaldization are also at work (Ritzer 1998). Chapter 4 shows that medicalization, an integral but distinct component of McDonaldization, has positive rather than negative effects on breastfeeding rates. This is likely due to the development of the infant formula controversy in the 1970s and the breastfeeding-advocacy movement that has globalized so effectively since then. Over the past thirty years, the medical profession has made a sharp turn away from formula to widespread support of breastfeeding. Additionally, the medical profession and institutions are affected by global policy initiatives and programs,

such as the WHO/UNICEF International Baby-Friendly Hospital Initiative. It thus appears that the emergence of the breastfeeding-advocacy movement and world-cultural scripts promoting breastfeeding counteract the further McDonaldization of infant feeding.

Second, my findings stress "glocalized" (Robertson 1992) aspects of the McDonaldization processes. Ritzer (1998) notes that McDonald's adapts to local cultures, but the variability of local cultural contexts goes far beyond tastes in food or restaurant style. I have found that the very notions of convenience and efficiency are subject to cultural interpretation. Whereas in the US, with its long tradition of formula feeding and advertising of formula products, women overwhelmingly viewed formula as more convenient than breastfeeding, in Ukraine, where breastfeeding is taken for granted, the opposite is true. Most of the Ukrainian mothers I interviewed believed that breastfeeding, which is always readily available, sterile, and at the correct temperature, was far more convenient than bottle feeding, even though the latter may offer grater predictability, calculability and control.

The local cultural context also affects the degree to which different domains of human life are susceptible to McDonaldization. Perhaps McDonaldized processes are more likely to take hold where a cultural void obtains. In Ukraine, with its strong breastfeeding culture, McDonaldization has made little headway with regard to infant feeding. However, using commercially prepared baby foods is a relative novelty in Ukraine. Over the years, varying cultural representations developed about the respective advantages of breastfeeding and bottle feeding, since both methods have a long history in Ukraine. However, since commercially prepared infant foods are still new to Ukraine, consensual norms about their use have not yet emerged. Moreover, whereas many world-

cultural scripts promote breastfeeding, few put stress on the relative merits of home-made as compared to commercially prepared baby foods. This cultural void makes it relatively easy for McDonalization logic to have an impact, which is why Ukrainian mothers are more likely to use McDonldized criteria in relation to baby foods than infant formula.

Finally, my work emphasizes the fact that McDonaldization is not the only rationalization process involved in globalization. World-polity theory stresses the cultural character of rationalization; formal rationality is understood as a cultural legitimation mechanism, sometimes producing substantive rationality but often yielding only ceremonial rationality (Meyer and Rowan 1977). Rationalization entails greater reliance on institutionally produced rules and systems of knowledge but it does not necessarily presuppose the maximization of utility as a central cultural logic. In my study, McDonaldization was not pronounced in primary infant feeding decisions but the rationalization of motherhood was a strong factor. Women who are better connected to world culture are more likely to base their mothering decisions on modern science and research rather than generational wisdom and traditions.

Summary: The Macro-Micro Link

As a way of summarizing my theoretical implications, I note that they share the common theme of linking the macro to the micro, that is, the intricate connections between globalization processes, meso-level national cultures and institutions, and the micro-level of social interaction and individual characteristics. In this way, it contributes to sociological approaches aiming to transcend the traditional macro-micro dichotomies (Alexander and Giesen 1987) – it shows that the “micro” is constituted and strongly

affected by the "macro" level structures and processes. Indeed, macro-level world-cultural scripts are ever more the stuff of everyday life, shaping individual actions and identities.

Policy Implications

Public health studies pay close attention to socio-demographic variables that affect infant feeding decisions. Consistent with that research (Ruowei et al. 2005; Sparks 2010), my study finds that lower socio-economic status is associated with a reduced likelihood and shorter duration of breastfeeding. The interviews produced new insights into the mechanisms underlying this finding, however. Whereas middle class mothers often base their infant feeding decisions on parenting advice literature and research, working class mothers mostly rely on intuition, generational wisdom, and advice from pediatricians, family, and friends. Less reliance on parenting literature and research makes it less likely that working class mothers are exposed to breastfeeding advocacy information, the WHO/UNICEF recommendations favoring breastfeeding, and the like, which in turn makes them less likely to breastfeed exclusively. While this finding is based on a small sample, it suggests that national programs of breastfeeding support should strive particularly to reach out to these mothers. Educational activities by health care providers, lactation consultants, and free pregnancy classes would help in this effort.

Another stream of research examines the impact of social support and interactions with family and friends (Ching-Man and Chow 2010; Ingram and Johnson 2009). Once again, my interviews confirm the importance of these factors in women's infant feeding decisions. A significant contribution of my work is that it reveals the context-specific

nature of the effects of social support. Whereas in Northern America, the availability of social support is usually associated with greater likelihood and duration of breastfeeding (Dunn et al. 2006; Nelson and Sethi 2005), a more complex situation obtains in Ukraine. Even though Ukrainian grandmothers and older relatives are usually supportive of breastfeeding, they also favor early introduction of supplementary foods and liquids, which lowers the likelihood and duration of exclusive breastfeeding.

The findings reviewed above have relevance for international policies promoting breastfeeding as well. Put simply, national context matters. For example, family structure matters: in countries with higher levels of collectivism, such as Ukraine, family members have a considerable impact on infant feeding practices. In such settings, including extended family members (particularly grandmothers) in educational programs promoting breastfeeding could be crucial to expanding the practice. The national context may also have specific features that standardized international policies do not address well. For example, in Ukraine, where cultural norms already favor breastfeeding, policies may need to focus less on the promotion of breastfeeding per se than on educating women about how to keep on breastfeeding once it has been initiated. The Ukraine has a high rate of breastfeeding initiation but its rates of exclusive breastfeeding and continued breastfeeding are less satisfactory (UNICEF 2011). My interviews with Ukrainian mothers revealed many misconceptions that may interfere with successful breastfeeding. Some women believed that their milk was too “thin” and of low nutritional value, others thought that colostrum did not provide adequate nourishment so it must be supplemented with formula until milk begins to flow, still others believed that frequent feeding or feeding on demand was detrimental to digestion. National programs of breastfeeding

support should incorporate educational activities addressing such beliefs and misconceptions specific to different national contexts.

My analyses also suggest that successful national implementation of international policy initiatives promoting breastfeeding requires assent and understanding by key stakeholders, such as medical professionals. Even though Ukrainian Ministry of Health endorsed WHO/UNICEF recommendations and Ukrainian pediatricians I interviewed generally supported exclusive breastfeeding, important disagreements obtained, with some pediatricians strongly believing that water is necessary earlier than six months of age. In the US, many women reported that their pediatricians encouraged supplementary foods starting four (rather than six) months of age[63]. Hence, adequate training and consensus building among medical professionals may be an important part of any national program of breastfeeding support.

My findings also identify advertising and other means of promoting commercial baby foods as another possible roadblock to successful implementation of policies promoting breastfeeding and exclusive breastfeeding. Some women reported that they use company promotion materials and product labeling as guides for deciding at what age to introduce supplementary foods. However, many baby food products sold in the US and Ukraine have labels suggesting their introduction before six months of age. For example, baby cereals and pureed baby foods are often labeled as suitable at four months of age. Therefore, regulations concerning the labeling of supplementary foods seem to be an

[63] Perhaps such recommendations can be explained in part by the somewhat ambiguous wording of the AAP's 2005 Breastfeeding Policy, which states that "exclusive breastfeeding is sufficient to support optimal growth and development for approximately the first 6 months of life," but "[u]nique needs or feeding behaviors of individual infants may require a need for introduction of complementary foods as early as 4 months of age, whereas other infants may not be ready to accept other foods until approximately 8 months of age" (American Academy of Pediatrics 2005: 499).

important part of national legislative measures supporting breastfeeding and limiting the effects of the aggressive marketing of breastmilk substitutes.

Most important, my work examines the effects of several international policy initiatives promoting breastfeeding. In my quantitative analyses, the positive effect of the adoption of ICMBS-based legislation on rates of exclusive breastfeeding implies that the International Code is an effective tool in efforts to promote breastfeeding. However, my analyses also suggest that national Code-based measures take a long time to have effects; the impact was substantial only for countries where the legislation has been in place for fourteen or more years, and mere adoption of the Code does not guarantee its effectiveness. My conversations with IBFAN-ICDC members who work with Code implementation around the globe produced valuable insights as to the reasons for this finding, as well as possible policy solutions. In order for national Code-based measures to be more than lip service to satisfy the international community, they should be supported by such institutions as the judiciary and an effective system of penalties. Policy-makers must give attention not only to national adoption of the Code but also to the prompt development of national institutions and organizations that monitor company adherence to Code-based measures and penalize violators to deter non-compliance.

Limitations and Future Directions

One apparent limitations of the quantitative portion of this dissertation is its small sample size, with fewer than 50 countries in the regression analyses. This limitation is common in cross-national research, and a number of standard procedures have been developed to ensure robustness of the findings in a small sample (e.g., Boswell and

Dixon 1993; Paxton and Kunovich 2003; Scanlan 2001; Wimberley and Bello 1992). These procedures, including tests for multicollinearity, outliers, influential observations, and normality, indicated no significant problems with the regression analyses, but improvement might be obtained by using pooled data (Hicks 1994). WHO and UNICEF have recently started collecting data on exclusive breastfeeding rates so many countries still have data for only a few years. In the near future, however, a pooled data set should be a viable option.

Another direction for further research is studying the impact of international policy initiatives other than ICMBS. Breastfeeding-advocacy INGOs, such as WABA and IBFAN, and WHO/UNICEF regularly monitor country adoption of maternity protection legislation and other measures specified by the Innocenti Declaration, as well as hospital Baby-Friendly certification. As these data become more complete, they provide a good opportunity for quantitative research.

As to the qualitative portion of my dissertation, one of its limitations is again a common issue – the generalizability of the findings. In particular, the factors that I identify as weakening the impact of world-cultural scripts on individual decision-makers may be specific to the infant feeding case in the US and Ukraine. To increase the generalizability of these findings, research in other cultural contexts is needed, above all in more impoverished settings, such as countries in sub-Saharan Africa. My quantitative research, which includes numerous countries from this region, indicates that globalization factors, including world-cultural scripts, should be as relevant in these contexts as elsewhere. However, we know little about the specific mechanisms involved, as women

in these settings have very limited access to the Internet, parenting literature, medical professionals, and other known routes of world-cultural impact.

Nevertheless, the dissertation clearly shows that world-cultural scripts are relevant to individual actions and identities, and one of the most fruitful future directions would be extending this research to other issues – exploring the impact of world-culture on constructions of the individual "self," gendered identities, aging, or fertility, to name a few. Indeed, this dissertation has been a wonderful journey, but it feels like just the beginning of an exciting research venture into the complex and growing effects of global factors on individuals worldwide.

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APPENDIX A. Variable Descriptions and Data Sources

Variable name	Measurement	Source
Dependent variable		
Country rates of exclusive breastfeeding	Percentage of infants 6 months of age or less exclusively breastfed in the 24 hours prior to survey (year 2000)	WDI 2008, UNICEF 2010, DOLPHN 2011
World-system variables:		
World-economy integration	Proportion of the sum of export and import in goods and services in real GDP (ln)	WDI 2008 or Jacobsen and de Soysa 2006
Rationalization variables:		
Medicalization	Percentage of children age 12-23 months immunized against DTP	WDI 2008
McDonaldization	A factor index - summary estimate of country's degree of McDonaldization	
	Mobile phone subscribers per 1000 people (ln)	WDI 2008
	Telephone mainlines per 1000 people (ln)	WDI 2008
	GDP per capita in constant 2000 US dollars (ln)	WDI 2008
	Urban population as percentage of total	WDI 2008
World-polity variables:		
World-polity integration	A factor index that provides a summary estimate of the extent to which a country is integrated into the world-polity	
	Number of INGOs to which the residents of a given country belong (ln)	UIA 2001
	Country diplomatic links (ln)	COW 2008
	Country IGO memberships	COW 2008
Country adoption of ICMBS-based law	Two dummy variables - country has ICMBS-based law for at least 2 but less than 14 years (N=8), country has ICMBS-based law for 14 or more years (N=11), the reference category - country has ICMBS-based law for less than 2 year or no law (N=28)	IBFAN reports

(Continued)

World-polity variables (continued):		
Individualism	Freedom House rating of country's civil liberties	Freedom House 2000
	Freedom House rating of country's political rights	Freedom House 2000
	Number of psychology INGOs to which the residents of a given country belong (ln)	UIA 2001
Sacralization of children	Infant mortality rate (per 1000 live births)	WDI 2008
	Children under 5 mortality rate (per 1000)	WDI 2008
	Fertility rate (total births per woman)	WDI 2008
	Number of children's INGOs to which the residents of a given country belong (ln)	UIA 2001
Control variables:		
Female labor force participation	Percentage of women in country's total labor force	WDI 2008
Region	Four dummy variables - Europe (N=4), Asia and Pacific (N=9), Sub-Saharan Africa (N=21), Middle East and Northern Africa (N=7). Latin America and Caribbean (N=6) is a reference category	Own coding

APPENDIX B. Pierson Correlation Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
(1) Exclusive brestfeeding	1.0																										
(2) World-econ. integr.	-0.3	1.0																									
(3) Medicalization	0.3	0.3	1.0																								
(4) McDonaldiz. index	-0.1	0.2	0.6	1.0																							
(5) Mobile phone subscr	-0.1	0.3	0.4	0.8	1.0																						
(6) Telephone mainlines	-0.1	0.3	0.7	0.9	0.6	1.0																					
(7) GDP per capita	-0.1	0.2	0.5	1.0	0.8	0.8	1.0																				
(8) Urban population	-0.1	0.0	0.3	0.7	0.5	0.7	0.6	1.0																			
(9) World-polity index	0.3	-0.4	0.2	0.4	0.3	0.3	0.4	0.3	1.0																		
(10) INGO membership	0.3	-0.3	0.3	0.4	0.4	0.4	0.4	0.3	1.0	1.0																	
(11) Diplomatic links	0.3	-0.4	0.2	0.3	0.2	0.3	0.3	0.3	0.9	0.8	1.0																
(12) IGO membership	0.1	-0.4	-0.2	0.2	0.1	0.0	0.2	0.2	0.7	0.6	0.6	1.0															
(13) ICMBS 2-13 years	0.0	-0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.3	0.3	0.3	0.2	1.0														
(14) ICMBS >= 14 years	0.4	-0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.4	0.4	0.3	0.3	-0.3	1.0													
(15) Civil liberties	0.2	-0.2	-0.1	-0.3	-0.5	-0.3	-0.3	-0.1	-0.1	-0.2	0.1	-0.1	0.0	-0.1	1.0												
(16) Individual rights	0.1	-0.1	0.0	-0.2	-0.4	-0.2	-0.2	0.0	-0.1	-0.2	0.0	0.0	-0.1	-0.1	0.9	1.0											
(17) Psychology INGOs	0.3	-0.4	0.4	0.4	0.3	0.5	0.4	0.3	0.8	0.9	0.7	0.4	0.3	0.3	-0.1	-0.2	1.0										
(18) Infant mortality	-0.1	-0.1	-0.6	-0.8	-0.5	-0.8	-0.7	-0.5	-0.5	-0.5	-0.5	-0.1	-0.1	-0.2	0.2	0.2	-0.6	1.0									
(19) Child mortality	-0.1	-0.2	-0.7	-0.8	-0.5	-0.8	-0.7	-0.5	-0.4	-0.4	-0.4	0.0	-0.1	-0.2	0.2	0.1	-0.5	1.0	1.0								
(20) Fertility rate	0.1	-0.3	-0.7	-0.8	-0.6	-0.9	-0.7	-0.5	-0.3	-0.4	-0.3	0.1	-0.2	-0.2	0.3	0.2	-0.5	0.9	0.9	1.0							
(21) Children INGOs	0.3	-0.4	0.1	0.2	0.3	0.2	0.2	0.2	0.9	0.9	0.8	0.7	0.2	0.4	-0.1	-0.1	0.8	-0.3	-0.2	-0.2	1.0						
(22) Female labor force	0.0	0.1	-0.2	-0.4	-0.1	-0.4	-0.4	-0.3	-0.5	-0.5	-0.5	-0.6	-0.4	-0.3	-0.1	-0.1	-0.3	0.4	0.3	0.3	-0.4	1.0					
(23) Region Europe	-0.2	0.1	0.3	0.2	0.1	0.4	0.1	0.3	0.1	0.2	0.2	-0.2	-0.1	-0.2	-0.1	-0.1	0.4	-0.4	-0.4	-0.4	0.1	0.2	1.0				
(24) Asia and Pacific	0.0	0.2	0.2	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.1	0.0	-0.3	0.0	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.1	-0.1	-0.2	1.0			
(25) Sub-Saharan Africa	0.0	-0.2	-0.5	-0.5	-0.3	-0.6	-0.5	-0.4	-0.3	-0.3	-0.4	0.0	-0.2	-0.2	-0.1	0.0	-0.5	0.7	0.7	0.8	-0.2	0.4	-0.3	-0.4	1.0		
(26) Middle East	-0.1	0.0	0.0	0.4	0.4	0.3	0.4	0.2	0.1	0.1	0.0	0.2	0.0	0.2	-0.5	-0.3	0.2	-0.3	-0.3	-0.3	0.1	0.0	-0.1	-0.2	-0.3	1.0	
(27) Latin America	0.2	-0.1	0.1	0.2	-0.1	0.2	0.2	0.2	0.4	0.2	0.5	0.4	0.3	0.1	0.4	0.4	0.2	-0.3	-0.3	-0.1	0.2	-0.6	-0.1	-0.2	-0.4	-0.2	1.0

APPENDIX C. Descriptive Statistics for Quantitative Variables

Variable	N	min	max	mean	sd	varia-nce	skewness
Exclusicve breastfeeding	47	1.20	84.00	28.90	21.24	451.10	0.86
Exclusive breastfeeding (square root transformation)	47	1.10	9.17	5.00	2.00	3.98	0.21
Exclusive breastrfeeding (Box-Cox transformation)	47	0.19	11.31	6.08	2.68	7.20	0.00
World-economy integration (ln)	47	3.35	5.33	4.19	0.52	0.27	0.17
Medicalization	47	24.00	99.00	73.55	22.47	505.12	-0.57
McDonaldization index	47	-1.49	1.90	0.00	0.94	0.89	0.08
Mobile phone subscribers (ln)	47	0.00	5.39	2.40	1.51	2.28	0.20
Telephone mainlines (ln)	47	0.22	5.69	3.15	1.59	2.53	-0.20
GDP per capita (ln)	47	4.69	8.76	6.40	1.06	1.13	0.33
Urban population	47	8.60	86.00	39.66	20.35	414.27	0.41
World-polity integration index	47	-2.21	2.11	0.00	0.93	0.86	0.14
INGO memberships (ln)	47	4.50	7.61	6.00	0.68	0.46	0.08
Diplomatic links (ln)	47	1.39	4.83	3.37	0.75	0.56	0.01
IGO memberships	47	35.00	94.00	59.09	15.40	237.25	0.46
Political Rights	47	1.00	7.00	4.57	1.74	3.03	-0.30
Civil liberties	47	2.00	7.00	4.49	1.27	1.60	-0.14
Psychology INGO membrships (ln)	47	0.00	3.66	1.41	1.02	1.05	0.35
Infant mortality	47	13.93	167.00	68.89	38.34	1469.91	0.49
Child mortality	47	16.30	286.00	103.81	68.29	4663.34	0.72
Fertility rate	47	1.10	8.00	4.05	1.74	3.04	0.33
Children's INGO memberships (ln)	47	1.10	4.36	2.84	0.67	0.44	-0.40
Female labor force participation	47	21.65	53.04	40.06	7.78	60.59	-0.55

APPENDIX D. Principal Component Factor Analysis

Index/independent variable	Eigen-value	Factor loading	Scoring coefficient
Index of McDonaldization variables	2.636		
Mobile phone subscribers per 1000 (ln)		0.773	0.168
Telephone mainlines per 1000 (ln)		0.861	0.311
GDP per capita (ln)		0.902	0.446
Urban population		0.696	0.131
Index of world-polity integration variables	2.005		
Country INGO memberships (ln)		0.861	0.362
Country diplomatic links (ln)		0.894	0.501
Country IGO memberships		0.681	0.148

Note: N=47; Chi2 for McDonaldization index:112.72*** ; Chi2 for world-polity index 76.44***

APPENDIX E: Interview Guides

US and Ukrainian Mothers

- Interview identifiers:
  - Interview ID number_____
  - Date of interview_____
  - Place of interview_____
  - What pseudonym would you like to choose for yourself?_____
  - How many children do you have?_____
  - Please choose pseudonyms for your children, and list each child's age and sex:

Child's pseudonym	Sex	Age

First I will ask you several questions that will help me better learn about you as a person…

- Identity:
  - Tell me about yourself. Imagine that I am a new friend and you want to tell me about the most important things in your life.
  - Who are your friends? How do you select your friends? Who are the people you wouldn't like to associate with?

- Personal circumstances:
  - Please describe your typical day: starting with what time you get up and continuing throughout the day.
  - What is your typical week-end?
  - Who helps you with childcare?
    - Husband/partner, relatives, baby-sitter?
  - Who helps you with housework?
    - Husband, relatives, domestic help?
  - How do you share responsibilities with your husband?
  - When do you plan returning/When did you return to paid employment? Why?

Now I will ask you several questions about how you feed your infant/s…

- Infant feeding practices:
    - Within the past 24 hours, did you feed your infant/s with:

	How many times?
Water	
Formula	
Breastmilk	
Tea	
Other water-based drinks	
Animal milk	
Cereals	
Fruits	
Vegetables	
Meat	
Fish	
Eggs	
Vitamins	
Other	

    - How old was your child when you first introduced the following foods:

	When introduced?
Water	
Formula	
Breastmilk	
Tea	
Other water-based drinks	
Animal milk	
Cereals	
Fruits	
Vegetables	
Meat	
Fish	
Eggs	
Vitamins	
Other	

Now let's talk in detail about your infant feeding decisions and experiences…

- Decision-making processes and experiences:
    - I see that until your child was (age), your predominant method of infant feeding was (breastfeeding/formula feeding/breast and formula). Why did you use your particular method?
        - Did you consider any other infant feeding options?

        - Did your husband/partner have any opinion about how you should feed your baby? Your mother? Other family members? Friends?
        - Did you seek advice on infant feeding from any particular people?
        - Do you think that anyone's advice influenced your decision? Whose?
        - What was your pediatrician's advice about infant feeding? Did you follow his/her advice?
        - Did you consult any literature, the internet, magazines, etc.?
        - What were the most decisive factors that influenced your choice?
    - I see that when your child was (age), you introduced changes in your infant feeding method (e.g., started giving water, etc.). Why?
        - Did you consider any other options?
        - Did you consult anyone?
        - Did you study literature?
        - What were the most decisive factors that influenced this change?
    - Up until now, do you recall any crisis episode when you thought that your infant feeding method did not work or you wanted to change it?
        - How did you resolve this crisis?
        - What sources did you consult?
        - What options did you consider?
- Evaluation of experience:
    - How do you evaluate your infant feeding experience so far?
        - Did it work for your child, you, your husband?
        - What were the advantages/disadvantages of your method?
        - How did you feel about your infant feeding method? (e.g., Was it pleasurable? What were you happy/unhappy about?)
        - Overall, what do you think about your infant feeding method?
        - What do other people (relatives, friends) think of your infant feeding method?

Now I would like to know what you think about different infant feeding methods…

- Methods comparison:
    - What do you think is the best method for feeding a baby under 6 months old? Why do you think so?
    - What do you think of infant formula?
        - What are good brands? Why?
        - When and how should it be used?
        - How does it compare to breastmilk? What are its advantages/disadvantages?
    - These days, what is the typical method for feeding a newborn . . .
        - Among people like you?
        - In Ukraine/USA in general?
        - In the West?
        - In the less developed world?
    - How similar or different are your infant feeding methods from those of other people you know?

    - What is your opinion about the current situation regarding infant feeding practices in Ukraine/USA/world? Should this situation be changed?
- Information sources:
    - What are the best sources of information on infant feeding? Would you recommend any books, articles, lactation consultants, birth classes, internet sites, etc., to other new mothers?
    - Have you heard of any international/Ukrainian/US organizations that promote breastfeeding/women rights/children rights?
    - Have you heard of the World Breastfeeding Week?

Now let's talk about your pregnancy and birth experiences…

- Pregnancy & birth:
    - Before you got pregnant, did you have any opinions about breastfeeding or bottle feeding?
    - Do you remember if, during pregnancy, you had any opinions about whether you would breastfeed or bottle feed? Why?
    - Did you attend birth classes?
    - Did you have a doula?
    - Were you planning to use pain medication during birth?
    - What was your birth experience like?
        - Where did you give birth (home/hospital…)?
        - Why did you choose this particular place to give birth?
        - What type of delivery did you have (e.g., C-section)
        - Please describe your infant feeding experiences for the first few days after giving birth (e.g., while in the hospital). What was your baby fed? Why?

Now let's talk about motherhood…

- Motherhood:
    - What is normally expected of a mother/wife . . .
        - Among people you usually associate with?
        - Among people you'd like to dissociate from?
        - In Ukraine/US overall?
        - In other countries?
    - What is your own ideal of a mother/wife?
        - What does it mean for you to be a mother? How do you balance motherhood with your other roles?
        - In your opinion, what defines a bad mother/wife?
    - How different are your methods from those of your mother, mother-in-law, grandmother? How do you imagine a modern mother? What is a modern way to feed a baby? How modern are you?
    - How important is it for you to teach your children things about Ukraine/America (e.g., history, culture, traditions)? Would you like them to grow up to be 'true' Ukrainians/Americans, or citizens of the world?

- Do you practice any religion? Does your church/religion have any prescription for infant feeding methods? Do you follow these prescriptions?

Lastly, I have a few general questions about you…

- Socio-demographic information:
  - What is your age?_____
  - Which of these groups BEST represents your racial/ethnic background (for US respondents only)?
    - White, Caucasian
    - Black, African American
    - Hispanic/Latina(o)
    - Asian/Pacific Islander
    - Native American
    - Other
  - Education: What is the highest level of education you have attained?
    - Middle school
    - High school
    - Some college
    - Four-year college degree
    - Some graduate school
    - Graduate or professional degree
  - Occupation_____
  - Employment status_____
  - What best describes your current relationship? Are you now…
    - Legally married
    - Not married, but living with a partner
    - Not living together, but in a relationship with a significant other
    - Single
      If single, are you…
      - Divorced
      - Widowed
      - Separated
      - Never married
    - Other:_____
  - Husband's occupation_____
  - Religious affiliation_____

We are now done with the interview. Thank you very much for your time and information!

APPENDIX F. Consent Forms

Emory University Graduate School of Arts and Sciences

Consent to be a Research Subject – Mothers of Infants

Title: "Breast vs. Bottle: Infant Feeding as a Global Issue"

Principal Investigator: Anna Rubtsova

Sponsor's Name: Department of Sociology, Emory University

Introduction/Purpose:

You are being asked to volunteer for a research study of how globalization impacts infant feeding practices. I am interested in learning both how mothers make their infant feeding decisions and how infant feeding practices are affected by the activities of transnational corporations, international policies, and the breastfeeding advocacy movement. I am conducting approximately 60 interviews with mothers of infants in the US and Ukraine. You are being invited to participate in this study because you have small children and make infant feeding decisions. The expected duration of your participation is two hours.

Procedures:

If you agree to participate, you will be asked to take part in a one-on-one interview lasting approximately 2 hours. I will be conducting the interview with you. During the interview, I will collect information about your age, marital status, education, employment status, the ages of your children, and the infant feeding methods that you use. In addition, I will ask you a number of questions regarding your approach to motherhood and your infant feeding decisions and experiences. With your permission, the interview will be taped using a digital voice recorder. I will take notes on paper in case you object audio-recording. The interview will be completed at a place and time of your choosing. In appreciation for your time, you will receive $15 (in the US) or Ukrainian currency equivalent of $ 15 (75 hryvnia) in Ukraine. In case the feelings of discomfort (e.g., emotionality, concerns about infant feeding issues) arise upon completion of this study, Anna Rubtsova can provide you with referrals for further professional assistance.

Voluntary Participation and Withdrawal:

Participation in this research is entirely voluntary. You may refuse to participate, or refuse to answer any questions you do not want to answer. Also, you may ask me to stop recording the interview at any moment you wish. If you decide to be in this study and

change your mind, you may withdraw at any time at no cost to you. At any time, the interview may be discontinued at Anna Rubtsova's discretion, if she decides it is in your best interest, or if you do not follow study instructions.

Confidentiality:

People other than those doing the study may look at study records. Agencies that make rules and policy about how research is done have the right to review these records. So do agencies that pay for the study. Those with the right to look at your study records include the Emory University Institutional Review Board and Emory University Sociology Department. Records can also be opened by court order. I will keep your records private to the extent allowed by law. I will do this even if outside review occurs. Your name will not appear on the records of your interview, only your interview case number and the pseudonym (fake name) you select. The record linking names to interview case numbers will be stored securely in a locked cabinet. Your name and other facts that might point to you will not appear in any published reports or presentations. The audiotapes of your interview will be transcribed by myself or a professional who will sign an agreement to keep confidentiality of your information. Upon completion of the study all audio recordings will be destroyed.

Risks*:*

There are no known physical risks or discomforts to you related to participation in this study. The interview questions may possibly make you feel uncomfortable at times. If this happens, you are free to skip the question or to end the interview at any time. There is the very slight risk that the information that you submit may not remain confidential. However, every effort will be made to keep all records confidential.

Benefits:

There are no direct benefits to you for participating in this study. However, the results of this research may increase our knowledge about this important subject and contribute to future policy development.

Contact Persons:

If you have questions about this study, please contact Anna Rubtsova by phone at ****** (US) or ******** (Kiev), or by email at grubtso@emory.edu. You may also contact my faculty advisor, Dr. John Boli at ********* or jboli@emory.edu. In Kiev, you may contact Dr. Ludmyla Evgenievna Dovgan at *********. If you have questions or concerns about your rights as a participant in this research study, you may contact Colleen DiIorio, Ph.D., Chair of the Emory University Institutional Review Board at + 1 404-712-0720.

If you are willing to volunteer for this research, please sign below. I will give you a copy of this consent form to keep.

_____	_____	_____
Signature of Study Participant	Date	Time
_____		
Name of Study Participant		

_____	_____	_____
Signature of Anna Rubtsova Principal Investigator and Interviewer	Date	Time

APPENDIX G. Recruitment Materials

Mothers Recruitment Flier

Globalization and Infant Feeding

The researcher: My name is Anna Rubtsova.

I am a PhD student at Emory University, Atlanta, GA.

The research: I am conducting a research study of how globalization influences infant feeding.

I am looking for volunteers to take part in interviews: US-born/Ukraine-born women (age 18 and over) who are biological mothers of infants (up to one year old).

The interview: The interview will be conducted at a place chosen by the woman to be interviewed and will last approximately two hours. It will inquire into women's infant feeding decisions and experiences. All responses will be confidential. Participants will be compensated $ 15 for their time. For more information contact Anna Rubtsova.

Contact details: To contact Anna Rubtsova, please send email to grubtso@emory.edu or call ******** (for US) or ********* (for Ukraine).

Mothers Recruitment Email

Dear Friends/Colleagues:

I am conducting my dissertation research concerning the impact of globalization on infant feeding methods. In particular, I am interested in learning how women make their infant feeding decisions. I am currently recruiting women to take part in my study. I am looking for US-born/Ukraine-born women (age 18 and over) who are biological mothers of infants (up to 1 year old) and are willing to take part in a one-on-one interview with me. The interview will be conducted at a place chosen by the woman to be interviewed and will last approximately two hours. It will inquire into the woman's infant feeding practices and related decision-making processes, attitudes, and beliefs. In appreciation of the woman's time, I will pay $15 per interview. Please feel free to forward this email to any women with small children (up to 1 year old) who might be interested in participating in this study. Please feel free to give me their phone numbers or email addresses, or they may contact me directly at my cell phone ******** or by email at grubtso@emory.edu.

Sincerely,

Anna Rubtsova
PhD Candidate
Emory Department of Sociology
225 Tarbutton Hall
1555 Dickey Dr.
Atlanta, GA 30322
Email: grubtso@emory.edu

Mothers Phone Recruitment Outline

Introduction:

- I am conducting my dissertation research on the effects of globalization on infant feeding methods.
- I am looking for the following women participants: US-born/Ukraine-born biological mothers (age 18 and over) of infants up to 1 year old.

Description of interview:

- Voluntary and confidential.
- One-on-one.
- At place of women's choosing. When scheduling an interview, we will talk and agree on a secure interview location where privacy can be reasonably expected (e.g., women's homes, offices, or public venues offering space where no one else is present). As an option, I will offer a secure interview location of my choosing (e.g., an office at the Emory Sociology Department in Atlanta or a quiet room at the Scientific Research Institute of Design and Ergonomics in Kiev).
- Duration of up to 2 hours, tape-recorded, in one or several sessions. If a woman minds tape-recording, I will take notes on paper.
- Interview concerns infant feeding practices, beliefs, and decision-making processes as well as women's personal circumstances, parenting styles and family relations.
- I will pay $15 in compensation for each woman's participation.

Inquiry:

- Does this sound like something you would like to participate in or do you have friends or acquaintances who would like to participate? Could you refer me to them or provide them with my contact information?
- Do you have any questions?
- My contact information – email: grubtso@emory.edu; US phone *******; Ukraine phone: ********.

Mothers Recruitment Advertisement

Are you the mother of an infant child?

A graduate student at Emory University, Department of Sociology is conducting a study of how globalization influences infant feeding practices.

You may be eligible to participate if:

- You are a US-born woman.
- You are age 18 and over.
- You are a biological mother of an infant child (up to 1 year old).

Participation is voluntary. Participants will be interviewed about their infant feeding decisions and experiences. The interview will take place at a public place of participant's choosing and will last approximately 2 hours. Participants will be compensated $ 15 for their time. All responses will be confidential.

If you are interested or would like more information, please call:
Ms Rubtsova, ********* or email: grubtso@emory.edu

APPENDIX H. Interview Analysis – List of Codes

Breastfeeding

- Part of nature
- Taken-for-granted
- Because child is "sacred"
- Inconvenience in public
- Economic advantages of
- Bonding
- Health advantages
- Convenient/predictable*
- As identity*
- Highly significant*
- As rational choice*
- Dislike of breastfeeding*

Bottle feeding

- Convenience/efficiency/predictability/control
- As "last resort"*
- Distrust of*
- Formula as "chemistry"*
- As allowing mother to eat what she wants*
- Because child does not have enough (of breastmilk)*

Supplements

- Traditional
- Rationalized
- Intuitive
- Home-made/natural supplements:
    - World-cultural impact
    - Economic reasons*
    - Distrust of "chemistry"*
- Reliance on baby-jars:
    - Convenient/efficient/predictable
- Early introduction of supplements*

Motherhood

- Intuitive
- Traditional
- Modern
    - "Active"*
    - Attention to child psychology/development*
- Rationalized

- Medicalization of motherhood

Personal/ idiosyncratic

- Specific circumstances
- Salience of natural health*

Identity

- Modern/cosmopolitan
- Traditional/ethnocentric
- Professional

Micro-level interactions

- Learning from other mothers
- Learning from relatives
- Unsolicited advice/critique/difference of opinion
- Low impact of other people*
- Community embeddedness*:
    - High*
    - Low*
    - Proximate relatives*
    - Dependency on mother*
- Breastfeeding influences*:
    - Pressures to breastfeed*
    - Pressures against breastfeeding*
- Early introduction of supplements*:
    - Pressures for*
    - Impact by relatives and friends*
    - Impact by child's grandmother*

Ukrainian institutions

- Preference for/prevalence of breastfeeding*
- Lack of breastfeeding education*
- New/old feeding contradictions*
- "Love of fresh air"*
- Low trust in institutions/belief in natural health*
- Impact of medical profession*
    - Breastfeeding-unfriendly hospitals*
    - Baby-friendly hospitals*
    - Pressures for traditional feeding*

US Institutions

- Impact of medical profession*
    - Pressures for early introduction of supplements*

World-system impacts

- Westernization
- Anti-commercial sentiments
- Bottle as Western
- Infant feeding as social class
- Impacts by baby food producers:
    - Through hospital*

World-polity impacts

- Knowledge of international models of infant care
- Knowledge of exclusive breastfeeding
- Knowledge of WHO/UNICEF recommendations:
    - Breastfeeding "propaganda"*
- Awareness about breastfeeding movement
- Reference to international parenting books/magazines/Internet sites
- Impact of lactation consultants/birthing classes
- "Natural life" cultural script
- World-culture embeddedness*
- Knowledge of exclusive breastfeeding/practice contradiction*

* An asterisk indicates code was added during the data analysis process