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Mothering, Medicine, and Infant Mortality in Russia:

Some Comparisons

By

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Those of us who are interested in creating a history of women want to focus first of all on the defining events in a woman's life. Childbirth and early nurture are such events, and, moreover, they have been, for most of history, matters that lay entirely under the control of women. But the methodological problems of this type of work are great. Like most female activity, childbirth and child care took place outside a public space, and the voice of the women who participated is seldom available for analysis. The historian must rely entirely on representations of these women created by others, and the picture we receive is shaped by the categories of thought and the moral conceptions of the reporters, usually people far removed culturally from the village society they are describing. Although I fortify my studies with statistical records of births, marriages, mortality and morbidity, these seemingly objective measures are, of course, themselves cultural constructions. There is no reason to believe that our definitions of the viability of infants, to take one example, is the same as that of the villagers we wish to study. Did peasants think of children as fully human before a certain stage of post-natal growth? Did they regard all children as equal at birth, that is, equally entitled to life? Were the definitions of life and death in this twilight immediate post-natal period (days, weeks, months) uniform across the various ethnic communities under study?

My current project was sparked by statements I found in my explorations of the child welfare movement in Russia. I ran across an observation sometimes used by doctors and publicists in their arguments for urgent action to reduce the loss of life among Russian children. These writers pointed out that not only Western Europeans but even non-Russian peoples of the tsarist empire enjoyed lower infant mortality than the Russians. It was not surprising to read that peoples living in the western borderlands of the empire, such as

Finns, Estonians, and Jews, had better success than Russians in keeping their small children alive. Generally, the lowest rates of infant mortality in Europe were found among the peoples living on the northwestern fringes, and the rates increased as one moved to the east and southeast. Similarly, in Russia itself, the highest rates of infant and childhood mortality were in the eastern provinces of European Russia. What struck me as surprising was the observation that in these eastern provinces in which infant mortality was highest among Russians, the non-Russian peoples had by comparison low losses of infant children. A check into the source of these claims in the statistical compilations published by a leading demographer, S. A. Novosel'skii, revealed that in the late nineteenth century infant mortality among some of the non-Russian peoples of the Volga region was reported to be closer to that of the Balts, Finns, and Scandinavians than to the rates of the Russians living in the Volga basin.¹

At first, I suspected that the wide divergence in mortality experience of peoples living side-by-side was more an artifact of registration than a reflection of real behavior. But checks on the reliability of the observations showed the differences in behavior to be authentic and substantial. In this preliminary study, I can only remark on some of the findings and begin to shape hypotheses about the behavior and values that underlie them. The information I now have is too meager to yield firm conclusions that would explain why the different peoples behaved as they did. A thorough analysis of infant mortality would need to include consideration of many variables such as income, occupation, female literacy, to name just a few, for which my information is now inadequate. I will limit analysis in this article to comparisons between Russians, Volga Muslims, principally Tatars and Bashkirs, and Jews.

The Russians

The Russians are the nationality for which information is most plentiful, and they can therefore be used as the basis of comparison. The mortality rates were usually shown in Russian compilations of the late imperial period in aggregates that included the fifty provinces of European Russia. As late as the 1890s (1887-1896), childhood mortality (deaths 0-5) in this region was recorded as 432 per 1000 live births. This figure did not represent the total, since infant deaths were not fully counted. More important, this average included large areas of non-Russian settlement--the Baltic Provinces, Poland, and parts of the Ukraine--in which childhood mortality was lower than in Russia proper. If calculations were limited to the predominantly Russian provinces, they would show that as late as the last decade of the nineteenth century only about half the children survived to age five. An index of 27 provinces of predominantly Great Russian settlement that I constructed on the basis of compilations by V. P. Nikitenko for the years 1893-96 yields a mortality rate for ages 0-5 of 469 per 1000 live births. Again, this figure understates the rate for Great Russians because it includes many non-Russians whose mortality was lower, but because the index excludes the worst years of famine it may be a fairer assessment of ordinary mortality than figures cited (as they often are) for the whole decade.² At the high end of the childhood mortality range in the late nineteenth century were the provinces of Moscow and Saratov in which 51.6 percent of the children died by age five, Tula province 52.4 percent, Nizhnii Novgorod province 53.8 percent, and Perm province 54.5 percent.³

In contrast to the childhood mortality rates, which were beginning to show improvement in this period, infant mortality (deaths 0-1) in these 27 provinces stood at

nearly one-third of all births and had remained at this level from the late 1860s (when records were first kept on a regular basis) through the first decade of the twentieth century. Again, this rate is understated in view of the less than full accounting of infant deaths.⁴

Geographically, the severity of infant mortality in late imperial Russia showed a fairly even pattern of lower rates in the western and southern provinces shading into high rates in the central and eastern, and especially northeastern provinces of European Russia. In view of the milder climate of the western and southern provinces, this circumstance might seem to have diminished the death rate. Other evidence, however, works against a climatic explanation. The annual bulge in morbidity and mortality among young children occurred not in the winter months but in mid to late summer. Russian children were healthier in the cold months than in the warm.⁵ Moreover, it was in the provinces of the northeast with their harsh weather that the contrast between infant mortality of the Russians and that of their non-Russian neighbors was greatest. Culture, not climate, played the larger role.

The disease environment into which children were born was much the same for all the ethnic groups in the Russian empire. The difference in survival rates depended in large measure on the degree to which the various child care cultures exposed infants to the disease agents in their surroundings. Among the Russians, this exposure was extraordinarily high.

The problems for Russian children began even before birth, if we are to believe the concerns voiced by the Russian medical community about the effects of alcohol consumption and syphilis on the health of the embryo and developing fetus. It is difficult, however, to determine how much of this concern was attributable to the moral conceptions

of Russian doctors and how much to observed behavior. Data on alcohol consumption by women are not well developed. Syphilis is better documented. In the late nineteenth century, 8 percent of the children left at the Moscow Foundling Home suffered from syphilis. This was a special population drawn primarily from the city and from towns and villages in the surrounding provinces, but syphilis was not confined to the vicinity of large urban areas. Its incidence was high in some provinces far removed from major population centers.⁶

Apart from these dietary or disease effects, the heavy work load of women in the household, farmyard, and field may have hindered fetal development. The labor contribution of Russian women was crucial to the farm economy. According to a time-budget study done in the 1920s, Russian farm women spent nearly as many hours at agricultural labor (as distinct from household tasks) as did the men.⁷ Pregnancy did not excuse women from the field work. Farm women often gave birth in the field or on the way home from the field.⁸ If at home, the birth took place either in the house or in the steambath cottage, usually with the assistance of a village midwife or female member of the family with prior experience in birthing. To the extent that they had the time and energy, village women took precautions for the care of their babies. Their notions of hygiene were, of course, much different from ours and concentrated on removing potentially harmful human and spiritual agents. Even the use of the steambath cottage, like the frequent use of a barn or other outbuilding when a steambath was unavailable, was not related to our ideas about cleanliness but was a matter of ritual separation during a time of contamination and, even more, a protection from the influence of people with evil intentions. Village women believed that the fewer people who knew of the birth, the safer it would be for

mother and child.⁹ This belief had possible ancillary hygienic effects by encouraging the removal of some infectious agents. But hygiene in the modern meaning was not known; until very late in the imperial era, it was rare to find a village midwife who bothered to wash her hands before testing cervical dilation.¹⁰

The principal concerns of those assisting at a birth, apart from the health of the mother, involved practices that would establish the newborn's proper relationship to authority and thus assist its growth. For example, women wrapped newborns in the coarse, used clothing of the father in the expectation that this would make the child robust and win for it the love and good will of its father.¹¹ Baptisms in the home were sometimes performed in freezing rooms with icy water in order to duplicate the conditions in a church during the winter. Though primarily an expression of ritual conformity, this practice was also considered important for inuring the child to hardship. Across the northern and central provinces of Russia and in Siberia, broiling infants in the steambath and flogging them with birch branches were used with the same goal of toughening up the children. These methods took their toll of infant life.¹²

The two most common causes of infant death were, however, epidemic disease and intestinal disorders. There was little people could do to protect their children against epidemics, although the conditions of village life increased the level of exposure. Intestinal disorders were chronic and came as a result of feeding practices and what physicians who worked among the villagers described as neglect but which would probably better be characterized as a sense of resignation about the fate of children. The farm families placed newborns in the only conditions they knew, the crowded village hut, where the infant hung suspended from a rafter in a fly-infested crib filled with dirty rags. The baby was either left

among the rags and its own excrement or, more often, swaddled, but in either case washed infrequently. The water used in washing and feeding the baby came from the same supplies available for other household purposes.¹³

Most deadly were the feeding practices. Ethnographic accounts of village life usually state blandly that Russian mothers breastfed their babies for three fasts (counting only the important ones of Lent and the Assumption) or for about a year and a half. Reports by doctors and officials working among the villagers paint a more complicated picture. During the summer months of field work many women left their infants at home when they went to the fields and, if they nursed them at all, did so only in the early morning and late at night. This was especially true in the northern regions of European Russia where the men left the villages to seek work elsewhere in the summer and the women managed the farms. But, more important, whether the women nursed regularly or not, they very often placed their infants on solid food from the very first days of life. This practice was required by the absence of the mothers during times of field work and off-season jobs away from home, but there was clearly more involved than the need imposed by the mother's absence, since Russians fed solid food to infants even when the mother was at home and nursing. When asked why they did this, village women responded that a child could not survive on breast milk alone.¹⁴ It is unclear if this belief was the result of projecting adult eating needs onto the baby or of assuming that the inadequate nutrition of lactating mothers made it difficult for them to sustain an infant. The villagers may even have understood that lactation drained the physical strength of poorly nourished women and made them less able to carry their usual work burdens. Connected with this physical consideration was also a social one: the demands of other members of the household for the mother's services. Some sources

note that members of the household resented the attention a mother gave to her newborn child because she could use it as an excuse for dropping other tasks.¹⁵ Whatever the cause, the effects on the infants were clear. The solid food introduced gastrointestinal pathogens and led to diarrhea and rapid dehydration frequently ending in death.

Another institution of Russian child care was the *soska*. This instrument consisted of a piece of cloth filled with grain or other foods partially chewed by a member of the family and placed in the baby's mouth. It was often the first thing that entered the mouth of a newborn. A British doctor working in the Russian countryside reported the following scene shortly after he delivered a baby in a village home:

Then in came the proud grandmother, chewing a rag in which was pocketed bacon rind and baked flour; this she was about to pop into the child's mouth to be the first intruding touch from the outside world when I stopped her, and asked her to consider whether it was as nice and clean a comforter as the mother's breast; and besides, had she not got pyorrhoea (her gums were awash with pus)...It was an ill-judged if not unkind interruption, because in any case the cozy rag would be thrust in the moment our backs were turned and by giving the babe something she had herself chewed she was in an animal sort of way binding her love to it as best she knew how.¹⁶

Although the doctor's remarks reveal both the city person's view of villagers as primitives and his failure to understand the woman's gesture as an assertion of her place (temporarily usurped by the doctor) in the birthing process, he did recognize the unfortunate effects of the *soska*. The Russian term for this instrument is usually misleadingly translated as "pacifier." It was meant to pacify, of course, but to do so in some measure by feeding the infant. It was part of the dietary regimen and regarded as an essential contribution to the baby's growth. In the summer, when the mother's help was needed with field work, the *soska* was used almost continuously. Many times it was the child's only source of nourishment from early dawn until the return of the mother late in the evening.¹⁷ Although

the *soska* quickly putrefied and left around the baby's mouth a moldy residue that doctors recognized as a mark of bacteria likely to be causing the summer diarrheas fatal to many infants, village women evidently interpreted the residue as a positive sign, an indication perhaps that the baby was receiving the nourishment it required. They referred to the mold as a "flower in the mouth" and said that the baby's mouth was "blossoming."¹⁸

In an unfortunate conjuncture, Russian infants had the least access to their mothers in the summer months when gastrointestinal pathogens were most prevalent. In some parts of Russia in the late nineteenth century the murderous effects of summer disease outbreaks and absence of nursing mothers from the home reached astounding proportions. P. I. Zarin's study of one area of Vereia district of Moscow province revealed that 67 percent of the children born in the summer died within a month. In a study of Borovichi district of Novgorod province, F. V. Giliarovskii found an even higher rate of death: 80 percent of the children born in the summer work season failed to survive.¹⁹ To make matters worse, the seasonality of births in rural Russia aggravated the effects of this link between the absence of the mother and the prevalence of disease. Russian villagers were most active sexually in the immediate post-harvest weeks of abundance, and conceptions in the late fall yielded a peak of births nine months later in July and August just when the survival chances of the infants were the poorest.²⁰ This unhappy combination of factors contributed greatly to Russia's high infant mortality.

The fatalism and resignation that shielded Russian parents from the potentially traumatizing impact of the carnage that surrounded them also must have served to increase the number of infant deaths. The loss of nearly half the children under the age of five made it impossible for parents to invest more than minimal emotional and physical energy

in a child. Doctors who worked closely with villagers remarked on the numbness of parents toward the death of children.²¹ Proverbs and stories collected by ethnographers likewise reveal the emotional distance Russians put between themselves and the deaths of their children. A collection of sayings and proverbs about children features a number of them that suggest such a defense: "It's a good day when a child dies"; "Just as it's a good day when a child dies, it's an evil day when your wife dies"; and "The death of a child is a mere chip off your knife blade, but that of a mom or dad leaves a gaping hole." Explicit in all these sayings is the valuelessness of an infant in comparison with a productive member of the household. "It's better to lose an egg than a chicken," another popular saying advised.²²

One must use care in citing proverbs as evidence. Sayings can also be found that reflect the love that Russian parents unquestionably felt toward their children. Yet the sayings quoted above point up an important reality about life in a village household. Members were evaluated in accordance with their current, past, and anticipated future contributions to the family. Resources were scarce and had to be allocated on the basis of such a calculation. The idea that all members of the household should receive equal treatment was foreign. In this calculation, a certain number of children were essential to the survival of the household, and parents did what they could to pull through the number that were required. Mothers actively invoked or propitiated the many spirits with which the peasant world abounded and which could harm or protect a baby. The evil eye was considered an especially great hazard in the days following a baby's birth. Ill-intentioned people were the usual source of the eye, but even friends and family might bring harm quite innocently by praising the baby unbetimes. Mothers already exhausted by the birth and their other responsibilities also had to exert themselves further to guard against these

dangers. When babies were ill, mothers used the traditional incantations and cures and called in village healers for additional remedies.²³ (Many of these cures were, of course, harmful and merely sped the baby's death, but urban, clinical medicine, to which village people in desperation sometimes turned, could have similarly poor results before the 1880s. It is also important to keep in mind that medicine operates within a cultural system and that its manipulation of the psyche can be as important, even more important, in effecting a cure than are the direct interventions of therapy. In this sense, the application of traditional cures to a baby could be seen as acts in the acculturation of the child and the community as a whole into a process that has protective benefits when one is old enough for the practices to engage the psyche.)

Despite the desire and need for children, the birth of a large number of them in a short time or the birth of children of the wrong kind (those that were weakly, misshapen, or crippled) could be a ruinous burden on a family. Some children were clearly considered more worthy of an investment of care than others. Women interpreted signs that allowed them very early to decide which babies were going to survive and which were not. If an infant looked odd, if it was too heavy, too pudgy, or too delicate, "the earth draws it back to itself," they said and assumed the child would die soon. If a baby developed too fast, or if it was too quiet, or if it stared too much at its surroundings, it was "not long for this world" (ne zhilets na belom svete), as the village women said.²⁴ Infants so labeled were not nurtured and protected to the same extent as those that seemed to have better prospects, and nature took its course. In some communities, certain categories of children were simply not allowed to survive. Illegitimate children were tolerated and nurtured in some villages. In others, however, if such children managed to be born alive at all, they did not last long.²⁵

Less valued children probably received much less attention and nursing from the mother because they were not considered worth the mother's lost work time. They were the children most likely to be turned over to old women or older siblings and fed on solid food more than the breast. This kind of differential nurturing leading to high death rates among certain categories of children has been observed in present-day peasant communities in the Third World. In these communities, just as in Russia one hundred years ago, outright infanticide is not culturally approved, but discriminatory treatment of small children is prescriptive.²⁶ It seems clear that Russian mothers of earlier times were also making decisions about the allocation of their time and resources to their children. In the Russian case, as in that of back country northeastern Brazil in recent times,²⁷ the decision seems to have been based more on the apparent hardness of the child and on the need for the mother's work services than, as in some other present-day instances, on the sex and birth order of the children.²⁸

In Russia, cultural beliefs no doubt helped to mask parental responsibility for the death of children and so made possible the continued psychic health of the mothers. The very folk beliefs cited above as evidence of mothers' concern for their children, for example the need to ward off the evil eye or the actions of malevolent spirits, were likewise shields against the feeling of responsibility for the death of children who may not have received adequate care. A mother may not have done everything necessary to propitiate the forces threatening her child, but who could realistically guard all the dozens of possible avenues by which harm could arrive? Ill luck will find a way, and, after all, it is God's will. The great uncertainty of survival of even valued children was another source of consolation in the loss of the less valued ones; who was to say that better care would have made any

difference? Nevertheless, mothers could not avoid feelings of guilt, as is clear from stories told by villagers of dried up milk flowing from the breast of a mother whose baby dies while she is away and tales of dead children appearing in the dreams of parents who had failed to remember them in their prayers.²⁹ Some feeling of responsibility is vital to a sense of control and prevents one from succumbing completely to despair.

To summarize, the circumstances surrounding the reproductive process in Russia -- the seasonal rhythms of work, conception and birth, the heavy work inputs of women, infant feeding practices and attitudes toward the death of children, or, in short, the Russian child care culture -- all conspired to raise the Russian child mortality rates to among the highest ever recorded anywhere. When as many as half the children died before age five, the scene that Nina Berberova recalled from her childhood in a village north of Moscow must have been repeated in nearly every village of central Russia. "I remember," she wrote, "...that every Sunday in the chapel there stood a row of small coffins containing the bodies of newborn infants--six, eight, sometimes even more. The infants were all alike, somewhat similar to dolls, somewhat to Easter suckling pigs."³⁰ A folk saying from the time expressed the reaction of people to this grim weekly display: "You can't make enough hay to supply an army and you can't make enough babies to satisfy the Reaper."³¹

The Muslim Peoples of the Volga

What first strikes one about the infant mortality statistics for the Muslim peoples of Russia is their improbability. For the empire as a whole in 1896-97 infant mortality for Orthodox peoples ran to 284 deaths per 1000 live births (not to mention the rates of nearly one-third for the Great Russian provinces), while for the Muslim population it was 166.³² And the contrast is far more striking if one looks at the statistics for regions in which Orthodox and Muslim peoples lived in large numbers and close proximity. For example, in Kazan province at the end of the century mortality among the Orthodox in the first year was 304 per 1000 and among the Muslims 161.³³ In Penza province during the 1880s the infant mortality rate for Orthodox peoples outside the city of Penza was 342 per 1000 live births, while for the Muslims it was a mere 140.³⁴ However improbable at first sight, these figures meet basic checks for authenticity, such as age-appropriate sex ratios and comparisons of census data with household and family lists. The mullahs, who kept the registers of fertility and mortality for the Muslim peoples, evidently did their work conscientiously. A Russian doctor working in one area of Kazan province did a check of these records over a 27 year period and found that "the very low figures shown for deaths of children are not a result of shortcomings or omissions in the records."³⁵

Nearly everything about the Tatar demographic behavior differed from the behavior of the Russians, including the patterns of marriage, of conception and births, of stillbirths, infant and childhood mortality, and age-specific mortality of women. Fertility of the Muslims was below that of Russians, and the seasonality of Muslim births diverged substantially from that of the Orthodox population living in the same regions. Instead of a peak in births during the summer, which was characteristic of the Russians and which exposed Russian

infants to the most unfavorable environmental conditions for their survival, the Muslims had the largest number of births in the winter. The Muslims lost infants to death in the winter and early spring following the peak of births, but their losses were small compared to the Russians' devastating peaks of infant mortality in mid to late summer.³⁶

The explanation for these differences in the Russian patterns of infant mortality and those of the Tatars and Bashkirs is to be found largely in the treatment and behavior of women. While much too little is known about these Muslim women, the records of officials and doctors who worked among them make clear that their behavior differed from that of Russian women. To begin with, Muslim women played a different role in the household economy. The wealthiest families could afford to cloister their women, but this was not typical. In most households, the women were responsible for keeping up the home and its immediate surroundings, and they went to local markets. But, in contrast to Russian women, only among poor families were Tatar women observed doing heavy field work or other arduous tasks outside of the home.³⁷ Among one Tatar ethnic group, the Mishari, in which women regularly assisted with the field work, they were excused from heavy tasks in the fifth or sixth month of pregnancy.³⁸ These practices could perhaps be regarded as a function of the economy more than of culture, since by some reports Tatars were less heavily invested in agriculture and, having come to it more recently than Russians, preferred to rent out their lands and engage in commerce and service occupations in nearby towns. Despite such reports, a large number of Tatars were agriculturalists and yet maintained a sexual division of labor different from the Russians.³⁹ In the case of the Bashkirs, however, the economy was somewhat different. Many communities continued into the late tsarist era to conduct a semi-nomadic way of life, spending a large part of the year following their

herds to the hills and distant fields.

Superficially, it might be thought that the use of alcohol would be lower among Muslims than among the Orthodox peoples and that this factor would influence prenatal and neonatal conditions favorably. The evidence is, however, mixed. By all accounts, Volga Muslims did not observe the Islamic prohibition on alcohol. Muslim men drank and on occasion did so to excess.⁴⁰ Women were less often observed drinking, and their use of alcoholic beverages may have been principally confined to holidays. Still, to the extent that they drank the homemade milk-based beverage of the non-Russian Volga peoples, kumis or kumyshka, they could have done themselves more harm than if they had drunk vodka, for chemical analysis of kumis showed it to contain toxins even more potent than alcohol.⁴¹

The well attested neatness of the Tatars may have played some role in the survival of their children. Muslims do a ritual cleansing several times a day before prayer, but there is no reason to believe that this has hygienic effects (they may splash on dirty water or even sand). Tatar women daily washed down the platforms that served as seats, tables, and beds in their homes, and they cleaned the floors once a week. The steambath was in frequent, often weekly, use, and in the baths Tatars were said to pluck out the hairs from their pubic region and underarms.⁴² So a kind of "cult of cleanliness" reigned, which extended on one side to whitewashing of their homes several times a year and on the other to small daily tasks like milking, during which the women "wear large aprons, cleanse the udders with warm water, and cover the milk pail with a clean towel."⁴³ Yet it is far from clear that before the use of water filtration and antiseptics these measures could have powerful effects in protecting children from the disease agents in the environment.

More to the point, the period of confinement during child birth for Tatar women extended considerably longer than for Russian women. Even poor families allowed women to rest for at least six days after a birth. In wealthy families the period of confinement lasted for twenty days.⁴⁴ These periods of rest gave the women time to restore their energies, to build an emotional bond with their babies, and to establish a nursing regimen free of other demands and duties.

Finally, the key to the success of Volga Muslims in saving their infants was unquestionably their feeding practices. The women breastfed their infants on demand for one and a half to three years. This was an excellent regimen but still not the essential point, since Russian women, when possible, also breastfed for a year or more. The determinant was that the Muslim women did not introduce solid food until their children were well developed, usually not until the end of the first year of life, and then they began slowly with dairy products. It is true that modern pediatric practice recommends that properly developing babies past the fourth or fifth month should be given supplements to breast milk for optimum growth, but here the Muslim practices encountered a trade-off against the effects of "weaning diarrheas" associated with the introduction of solid foods; these diarrheas were more dangerous the earlier the age at which they occurred.⁴⁵ The custom of these Volga Muslims not to introduce solid food and to keep their children exclusively on the breast for a year and beyond, more than any other factor, accounted for the striking difference in infant mortality rates between these peoples and their Orthodox neighbors.⁴⁶

The effect is quite easy to plot statistically. Until age one mortality among Tatar children in the late nineteenth century was roughly equivalent to that in England, while the

Russians living nearby showed rates of infant death from two to three times as large. Thereafter a reversal took place. In the age group 1-5, after the Tatar mothers began placing their children on solid food, the mortality of the children rapidly caught up with and even surpassed that of Russian children of the same age group. The Muslim children were no more immune to pathogenic organisms than were the Russian children and, once exposed, they too suffered great losses. The deaths were even more numerous than they needed to be as a result of the Muslims' poor access to medical services and common rejection of vaccination against smallpox.⁴⁷ Still, the Muslims lost fewer children overall than did the Russians, whose children suffered devastating losses in the first year. The worst mortality for the Muslims came after age one when children withstood somewhat better than infants the environmental assaults on their health.

A striking aspect of the comparison of these child care cultures is the sharp divergence in practices of people living in close proximity. The Russians and Tatars lived in seemingly tightly sealed, self-reinforcing cycles of fertility and infant mortality, and their practices did not appear to have had any marked influence on one another. With regard, for example, to the main killer of small children, intestinal disorders in the summertime, Russian and Tatar villages showed altogether different profiles. The Russian children had high incidences and the Tatar very few. It was not just that people living in the same province, or even people who lived in the next town or village, behaved differently. People of different ethnic groups living side-by-side in the same village operated under entirely different rules of behavior. A doctor in Kazan province reported that in villages of mixed ethnic composition, in the summer "every single Russian child suffers from diarrhea, whereas the Tatar children are all healthy. The Tatar mothers strictly avoid bottle feeding

or solid food. Only in cases of extreme need do they use the so-called 'al'va'" (a "pacifier" made of fresh ingredients and heated before use, making it less pathogenic than the type employed by Russians).⁴⁸ A similar pattern of disease among children was found in Simbirsk province, where the Orthodox children ages 1-10 suffered nearly twice the number of deaths from intestinal disorders as did the Muslim.⁴⁹

What could have accounted for this difference in behavior between Russians and non-Russians? Social scientists are apt in these instances to propose a link between economic status and infant and childhood mortality. But, if what is meant is a simple correlation between infant mortality and occupation or income, this type of explanation is unsatisfactory. I have examined the child care practices of Tatars and Bashkirs (and also Volga Finns, who share some of the same behaviors) in several different locations and economic conditions, and their child care practices remain consistent. Similar feeding customs and infant mortality rates prevailed among the settled Kazan Tatars and the semi-nomadic Bashkirs to the south.⁵⁰ Limited data and observation on child care among Russian merchant families indicate that Russian behavior in this regard likewise cut across occupational and socioeconomic lines.⁵¹

The behavior of these Muslims was not so much a response to immediate economic conditions as a deeply imbedded cultural pattern. A striking demonstration of this can be seen in the lives of an altogether cut-off urbanized Tatar community that resided in the west Russian city of Minsk, 1500 kilometers from Kazan. The Tatars of this community had lived separate from their ethnic cousins for centuries, they had adopted the dress of their Belorussian neighbors, and scarcely anyone among them spoke the Tatar language, yet they exhibited the same distinct patterns of demographic behavior as the Volga Muslims. The

seasonality of nuptiality, births, and infant deaths among these Tatars diverge from that of their Belorussian and Jewish neighbors and form a close parallel with those of the Muslims on the Volga.⁵²

Less certain is the source of this pattern and the motivation for continuing it. The doctors who worked among the Muslim peoples took the cause to be a strict Koranic injunction about breastfeeding of children. According to the report of one doctor, Muslim women enjoyed personal freedom and rights to property independent of their husbands. The one thing that the Koran allowed husbands to demand of their wives was the nursing of infant children, and this injunction therefore constituted a rule of some force.⁵³ A husband "owned" the milk of his wife.⁵⁴ A medical researcher in Orenburg province attributed the success of Muslim childrearing to another Koranic rule that enjoined women to feed children with breast milk alone for a period of two years.⁵⁵ The Koran does contain a verse (2:233) to the effect that mothers should nurse children for two years, but it says nothing about omitting other foods and even includes loopholes that permit early weaning or use of a wet nurse. The injunctions mentioned by the doctors most likely were local interpretations of the more broadly stated rule. Most other doctors and officials who reported on this aspect of life among the Volga Muslims also attributed the feeding practices to the Koran.⁵⁶ In doing so, they were undoubtedly passing on the reasoning of their Muslim informants and not simply plucking the explanations out of thin air. I suspect nevertheless that the informants themselves may have been unconsciously ascribing to religious sanction customary practices that pre-dated the adoption of Islam and that may have been shaped by Turkic ideas of the role of white fluids in the generation of children. The most instructive approach is probably not to ask whether economics or religion most

influenced the child care practices of these peoples but to examine the role that religion played in rationalizing and sustaining customary understandings of physiology and the practices that they sustained. In this connection, we should also be able to assess the role of these fundamental patterns of thought in fixing the definition of women and hence their place in the economy and family life.

It seems clear that the Muslims placed greater relative value on the reproductive role of women than did the Russians and, by the same token, less importance on the productive functions--again, in relative terms. Women in both communities, with the exception of those at the highest socioeconomic levels, shouldered a very heavy burden of both household and farm labor. The Muslims, however, excused their women from many tasks several weeks before confinement, and they extended the period of rest and recuperation after a birth well beyond what the Russians did. Moreover, they excused women during menstruation from one of the most time-consuming tasks, food preparation.⁵⁷ Though principally a question of contamination, this practice also revealed a reverence for the power and mystery of a woman's reproductive function. Another sign of this respect was the Muslims' practice of building a wall of social separation between a young daughter-in-law and her new father-in-law. In Bashkir households, the daughter-in-law was not to uncover her face in the presence of the father-in-law for a year after entering the home, and to reinforce this custom she was to eat separately from him. Judging from the many references to Russian fathers-in-law using their daughters-in-law sexually, this relationship was not as well regulated in Russian village life.⁵⁸

For the Muslim women themselves, the relatively greater emphasis on their reproductive role has to be seen as a mixed blessing. They may have been relieved of some

of their household and other tasks when these conflicted with their reproductive function, but the demands connected with birth and nurture exacted a heavy price psychically and physically. A woman who did not produce children (the fault was assumed to lie with her) could be set aside by easy divorce or reduced in status (and access to food and other resources) by the husband's acquisition of an additional wife.⁵⁹

The extended periods of lactation may also have taken a high toll. They may provide an explanation for the unusually high mortality of Volga Muslim women during their childbearing years. In this regard, a curious imbalance of a normal statistical pattern occurred. For most ethnic groups of the Russian empire, higher survival rates of infants correlated with higher survival rates of women of childbearing age. But in the cases of the Tatars and Bashkirs the relationship did not obtain. Despite doing better than the Russians with their children, the women of these Muslim groups suffered significantly higher mortality rates in their childbearing years than did the Russian women.⁶⁰ This is all the more surprising in that Russian women endured a much higher number of births with the attendant increased risks of maternal mortality. But extended lactation also carried risks, especially for poorly nourished women. Lactation for such women requires a nutritional supplement of 550-600 calories per day, without which the nursing mother sacrifices her own reserves of energy and nutrients vital to her physical well-being.⁶¹ Considering the poverty of most Volga Muslim households--observers agreed that these people were on average far worse off economically than their Russian neighbors⁶²--it is unlikely that many of the lactating women among the Tatars and Bashkirs received the supplements they needed. In addition to depleting the physical resources of women, lactation can invite invasion of pathogenic organisms through cracks in the areola opened by dryness or biting.

Unfortunately, and revealingly, studies in the medical literature on the effects of breastfeeding have focused almost exclusively on the status of the infant and little is known about the impact of breastfeeding on the health of mothers. Nevertheless, impressionistic evidence on Third World women indicates "prematurely aged appearance and a progressive weight loss with parity and age," and, in addition to this general decline, repeated reproductive cycles carry the risk of specific deficiencies such as "osteomalacia, anemia, goiter, and nutritional edema."⁶³ Although, until further research, the proposition can be no more than a working hypothesis, it seems probable that prolonged lactation, added to the other burdens and deprivations endured by these Volga Muslim women, played an important role in their high rates of mortality during childbearing years.

The Jews

Study of the Jews is especially difficult. In the period under analysis, the Jewish communities of Eastern Europe were being swept by two powerful intellectual movements that went to the foundations of belief and practice: the radical, nativist movement of Hassidism, and a Jewish version of the central European Enlightenment, known as the Haskalah. Moreover, the Jewish communities exhibited a number of paradoxes. In some respects, they were more cohesive socially and intellectually than other communities, while in other respects they were more diverse. They shared a powerful common heritage and intellectual point of reference, but at the same time, they were widely dispersed, spoke a number of different languages, and occupied a great diversity of economic statuses. Another paradox concerns the records of vital events. Despite the Jews' comparatively high level of urbanization, education, and literacy, their records of births and deaths are the least complete of the groups under study. Records of newborns in the 1870s among Jews in Minsk, to take a typical example, showed a sex ratio of 172 boys for every 100 girls. In Mogilev, the ratio ran to 210 boys for 100 girls. Some scholars at the time made what in retrospect can only appear as comical attempts to explain these figures as if they actually represented what had happened. Even today, some commentators argue that supermasculinity may have resulted from strict adherence to a rule requiring absence of intercourse until 14 days following the onset of menses.⁶⁴ Whatever effects this rule may have had, it is clear that registration played a much bigger role, as was discovered by scholars who compared records of vital events in 1896 with the data from the first all-Russian census in 1897 and found that several thousands Jewish girls who had not been born nevertheless survived into the next year of life.

Once the data are standardized, it can be seen that, despite certain distorting factors, the Jews did better than most peoples of the Russian empire in ensuring the survival of their children. Around the turn of the century, Jewish infant mortality was about 130 per 1,000 live births and mortality to age 5 ran about 248 per 1,000: in other words, about half that of the Russians. The demographers who assembled these figures had difficulty explaining them, since they were aware that the Jews lived in poor sanitary conditions and often difficult economic circumstances, not to mention the threat of brutality from their non-Jewish neighbors. "Evidently," wrote one team of analysts, "a big role is played by a combination of all those factors known under the general term of civilized behavior [kul'turnost'], including internalized civility and civility of the spirit, because in outward appearance with regard to nutrition, clothing, cleanliness, housing, and the like, the Jewish masses exist on a rather low level. Undoubtedly, a large part is played by the absence among most Jews of alcoholism, the less frequent incidence among them of venereal diseases and syphilis, their greater attentiveness to their children, and so on."⁶⁵

This explanation, vague though it is, seems to be borne out by the experience of the Jews who moved from Eastern Europe to the new world at this time. An analysis of the infant mortality figures for New York City between 1885 and 1915 reveals that a large portion of the drop in infant mortality during that thirty-year period can be explained by the immigration of East European Jews, whose infant mortality rates in New York were, with the sole exception of the Swedes, lower than those of any other ethnic group, lower even than the rate for native born Americans.⁶⁶ So the childbirth and child care practices of the Jews, when transported into a more sanitary living environment, yielded impressive results.

It is difficult to sort out the reasons for this remarkable performance. Jewish demographic and social behavior differed from that of the Slavic and Baltic peoples among whom they lived, but the differences do not necessarily explain the results.

Age at marriage among Jews in the late eighteenth century was low and may have been lower than that of any of the peoples in the region. A detailed population analysis of Kurland revealed that over half the Jewish women were married before age nineteen and over ninety-five percent by age twenty-five. Early marriage brought early fertility. Nearly 85 percent of the mothers with children at home had given birth to their first child before age 19.⁶⁷ Evidence from personal memoirs of this period confirms that marriage in the early teens was far from unusual.⁶⁸ Age at first marriage showed a rapid rise in the second half of the nineteenth century, however, and steadily approached that of the surrounding populations, even if among Hassidic Jews some instances of very early marriage continued.⁶⁹

Seasonality of marriage among Jews was very different from that of their neighbors. It was much more even through the course of the year, a pattern typical of people not tied to the agrarian cycle. Accordingly, Jewish fertility was less skewed than that of the agriculturalists among whom they lived, and, in particular, the Jews avoided the peaks of birth in the summer when mortality among infants and young children was the highest.

A major difference between the Jews and their Slavic neighbors was the matrilineal residence of young married couples. The bride's continuing residence with her own family afforded her protection from her husband and especially from his relatives: quite a contrast with the sorry lot of Slavic brides, who came into their husbands' households occupying the lowest rung on the social ladder and under the tyranny of their mothers-in-law. Jewish women, though also expected to carry a heavy burden of household labor and work in the

family trade, could establish their relationship with their husbands in a familiar and presumably supportive environment. If a child was on the way, the young mothers could enjoy the comfort and assistance of women from their natal family. It should also be mentioned here that the normal period of confinement for Jewish women after delivery (though this must have varied a good deal by class and personal circumstance) was reported to be eight days, which indicates that they enjoyed a personal support system sufficient to absent them from work for a substantial period for regaining their strength and for nurturing and bonding with their infants.

The picture in regard to cleanliness and personal hygiene is mixed. Most descriptions of Jews remark on the filth of their surroundings and the close quarters in which they live. For example, in the city of Berdichev in the 1860s, the Christian population was living on average with 4-5 persons per dwelling, while the Jews squeezed 12-13 persons into each house. In the city of Mogilev in the 1880s, at least half the Jewish households were composed of 10 or more persons. Observers described the poverty of the Jewish working class as appalling.⁷⁰ On the other hand, the personal hygiene of Jewish women differed markedly from the practices of the surrounding Slavic women. Best known in this regard is the mikva. During menstruation, Jewish women went regularly to the mikva bath. According to Jewish law, the bath was supposed to be fed by moving waters, and, if so, it could have offered general hygienic effects. Reports from the time, however, note that mikvas frequently consisted of standing water that was not changed for days and even weeks and so, contrary to expectations, may have served as a reservoir of pathogens that infected the women's reproductive organs. One doctor observed that "cleaner Jewish women use it reluctantly."⁷¹ He also reported that Jewish women wore garter belts with

absorbent pads and changed their underwear during menstruation. In contrast, Belorussian women took care not to do these things. They dressed in red or black skirts to hide the stains and did not change underwear for as many as four days after the cessation of menses. They feared that any change would make them bloodier, longer lasting, or irregular.⁷² Russian women not of the educated classes shared the same fears. According to Dr. N. I. Rachinskii, they were convinced that changing underwear during menstruation was dangerous because it could introduce disorders in the normal flow. "The expression 'to change one's shift' was synonymous with announcing the end of the menstrual period."⁷³ Much to the distaste of doctors, Belorussian women would also not allow a change of straw in the bed they occupied after giving birth, believing that this could harm the mother. Slavic women perceived their bodies at the time of menstruation or birth as highly vulnerable to invasion by harmful agents and therefore, as noted earlier, did everything possible to hide their condition from others and to avoid contact with substances that could serve as vehicles for the spiritual malefactors or the evil eye. Jewish women seemed to understand their own bodily emissions as more dangerous than the practices employed to remove them. This dichotomy of internal/external coding of the sources of harm may provide a key to other differences in the two cultural systems.

These different orientations may, for example, illuminate another area of notable difference: the attitudes of Jewish and Slavic women to the medical assistance of outsiders. Doctors working in the region of Jewish settlement remarked on the receptivity of Jews to such advice. Dr. Sitsinskii noted that in cases of infertility, Belorussian women sought out and tried the remedies of the healers in their own community, such as granny midwives and witches, and they even went on recommended pilgrimages--but would never consult a

doctor. Jewish women, in contrast, "are persistent in their search for a remedy for infertility and in order to have children are prepared to undergo any kind of a gynecological operation."⁷⁴ Another researcher, a doctor who worked in the Pale of Settlement, noted the great faith that Jews placed in physicians and added that they acted on a doctor's advice even when it went against their religious practices, for example by eating pork. While Jews took whatever medicine was prescribed, the doctor commented, this "unfortunately, is not true of their Belorussian neighbors." This researcher, whose study was not especially complimentary to Jews in other respects, also pointed out that Jews made great sacrifices to bring a sick member of their family back to health. "They are devoted to their family and very loving toward their offspring."⁷⁵ The reference here to operations and the fact that doctors more often used invasive therapies (in contrast to the folk healers reliance on incantations, exorcism, and surface treatments) may again suggest that Jews were more likely than their neighbors to locate the source or action of illness internally. It may, however, simply be a sign that the Jewish community's approach to health was medicalized earlier than was the case in the other, less urbanized, communities. I need to do much more study to sort out more important influences here.

In addition to the doctor, another outsider who turns up again and again in Jewish communities in the role of healer is the tatarin. Where urban clinical medicine was not available, the Tatar seemed to be the healer of choice. Just why this was I have not been able to determine, but, once more, shared cultural practices may have played an important role. Muslims and Jews were more strictly monotheistic than Christians. They shared some of the same dietary taboos. The Tatars were more likely than other practitioners to have preserved the medical knowledge of the ancient Middle East and therefore to use methods

that overlapped with Jewish understanding of medical practice. Tatars, like Jews, circumcised their boys, and would have understood the need for and meaning of this operation and have had the skill to perform it, if the Jews did not have a specialist of their own (a moyl) available.

Conclusion

It is natural for a historian to want to seek out the root causes of the differences in these childcare cultures, and an obvious approach is to assume that the practices of the various communities were biologically adaptive, or at least that they had been so in the past. Such an analysis might be couched in the following terms. Since in the case of the Russians high costs were incurred in keeping women pregnant much of their child-bearing years and investing physically and emotionally in infants that would not survive to working age (not to mention direct inputs of food and clothing), the offsetting benefits must have been important. A series of proverbs, sayings, and direct rationalizations can be strung together to make a case that Russian villagers understood high infant mortality as a form of population control, but, if birth control was their sole objective, a regime could have evolved that achieved the desired family size by less frequent pregnancies and better success with the children that were born, as happened in the case of the Volga Muslims. This type of solution was probably less adaptive in the subsistence agricultural economy of the Russians, which left them vulnerable to periodic famines and epidemics. In these circumstances, it was necessary to maintain very high general fertility to replace sudden massive population losses. During more favorable times when high fertility could threaten to exhaust the resource base, people could adjust by selecting through differential nurturing for the most robust children at or soon after birth. By the same token, contraception or

abortion, two other methods of limiting the number of children, would be less desirable, because they disrupted the continuity of supply, threatened the health and even the life of mothers, and did not allow for selection by sex or hardiness. I cannot say that this technical and highly speculative understanding is especially satisfactory, and certainly more study of actual behavior would be required before one could say that this method of control was built in as a cultural norm far back in the Russian past.

Whatever the cultural system may have prescribed, it is clear that, by the middle nineteenth century, conscious choice, including the choice of illegal abortion, and the tyranny of work rhythms played a part for many Russian women in loss of children. Giliarovskii, who recorded the demographic behavior of the common people in Novgorod province for twenty years from the 1830s to 1850s, told of women who had several abortions in a row because conception came at the wrong time and birth would have interfered with their work. As a result, the women harmed their reproductive organs and ended up with accompanying illnesses and the shame of having produced no children. Other women gave birth just before the work season and were therefore unable to breastfeed their babies. Because the mothers were not nursing, they conceived again at the end of the work season so that another baby appeared at the beginning of the next work cycle, a process that repeated itself again and again. The women were pregnant much of the time, suffered from this burden and its attendant "illnesses," gave birth too often, and most of the babies died.⁷⁶

With regard to the Muslim women, we might question whether, in the circumstances of a sedentary economy, their "more natural" child care (in the sense that they nourished children on the breast exclusively for a sustained period) was as adaptive as it probably

had been in other conditions. They kept a large proportion of their children alive through the first year or two of life only to lose a high percentage of them in the next three to four years. Even if the total survival rate of their children was better than that of the Russians, their investment of direct inputs, plus time, energy, and emotional bonding must have been considerably greater per surviving child. Could it be that their child care strategy was a holdover from a time when their people lived a nomadic life in which lower population density and a different diet gave their older children greater protection against disease? It seems clear, at any rate, that the reproductive function of the Muslim women was relatively more valued than it was in the case of the Russian women, whose reproductive and nurturant capacities were subordinated to their productive roles in the household economy.

Yet, in an unusual trade-off, the greater confinement of the Muslim women to the home and investment in their small children, while it may have been good for their children, was not especially healthy for the women themselves. The reasons for the high mortality of these women in the childbearing years is not altogether clear, but a number of factors, including the poverty of Volga Muslim communities, the ideological devaluation of women in Muslim societies, and the child care regime itself with prolonged lactation under adverse dietary conditions, no doubt played an important part.

My research on the Jews is at much too early stage to be able to offer any conclusions other than to state the obvious: that Jewish mothers (despite a widespread lack of a formal recognition of the birth of their girls) did better in bringing their children, both male or female, through the dangerous early years of life than did the women of the other groups under study.

Endnotes

1. For examples in the journalistic literature, see Detskaia pomoshch' (1892), no. 13, 461-62; Detskaia meditsina, 6:3 (1901), 257. Statistics in S. A. Novosel'skii, Smertnost' i prodolzhitel'nost' zhizni v Rossii (Petrograd, 1916), 144-46.
2. Nikitenko, Detskaia smertnost' v Evropeiskoi Rossii za 1893-1896 god (St. Petersburg, 1901), 226-29.
3. A. G. Rashin, Naselenie Rossii za 100 let, 1811-1913 gg. (Moscow, 1956), 198; Detskaia meditsina, 6:3 (1901), 257.
4. Rashin, Naselenie, 194. My index of 27 provinces for the years 1893-96, mentioned earlier, yields an infant mortality rate in these mainly Great Russian areas of 324 per 1000 live births.
5. E. A. Osipova, "Neskol'ko statisticheskikh faktov otnositel'no smertnosti, rozhdaemosti i brakov v Moskovskoi gubernii," Chetvertyi gubernskii s"ezd vrachei moskovskogo zemstva (Moscow, 1880), 116-19; Detskaia meditsina, 6:3 (1901), 257-58.
6. Some, largely impressionistic, evidence on female drinking can be found in Trudy pervogo vserossiiskogo s"ezda po bor'be s p'ianstvom (3 vols., St. Petersburg, 1910), vol. 2, 569 and vol. 3, 1157, 1160; Trudy kommissii po voprosu ob alkogolizme, vol. 3 (1899), 163-64. I am indebted to Patricia Herlihy for these references from her current unpublished manuscript on the temperance movement in Russia. Syphilis was quite common in Russian villages. Though sometimes thought to follow migrant labor streams, high rates of syphilis could be found in regions with little migrant labor. See S"ezd po obsuzhdeniiu mer protiv

sifilisa v Rossii: Trudy (St. Petersburg, 1897) for many references; V. I. Nikol'skii, Tambovskii uezd. Statistika naseleniia i bolezennosti (Tambov, 1885), 280-284; M. Buch, Die Wotjaken (Helsingfors, 1882), 46, 52, 74. Russian doctors were convinced that syphilis traveled not only by sexual contact but even more so in village conditions by non-sexual contacts. See an interesting discussion of this issue by Laura Engelstein, "Love and the Wooden Spoon," Representations, 14 (Spring, 1986), 169-208. Foundling home statistics reported in M. D. van Puteren, Istoricheskii obzor prizreniia vnebrachnykh detei i podkidyshei (St. Petersburg, 1908), 488-89.

7. A. Bol'shakov, Sovremennaia derevnia v tsifrakh (Leningrad, 1925), 100.

8. Typical of many reports of heavy summer labor and inadequate nutrition for women is that in Nikol'skii, Tambovskii uezd, 158-59.

9. A. O. Afinogenov, Zhizn' zhenskogo naseleniia Riazanskogo uezda v period detorodnoi deiatel'nosti zhenshchiny i polozhenie dela akusherskoi pomoshchi etomu naseleniiu (St. Petersburg, 1903), 76; A. V. Balov, "Rozhdenie i vospitanie detei v Poshekhonskom uезде, Iaroslavskoi gubernii," Etnograficheskoe obozrenie, 2:3 (1890), 93-95; A. V. Balov, "Ocherki Poshekhon'ia," Etnograficheskoe obozrenie, 14:4 (1901), 118; E. A. Pokrovskii, Fizicheskoe vospitanie detei u raznykh narodov, preimushchestvenno Rossii. Materialy dlia mediko-antropologicheskogo issledovaniia (Moscow, 1884), 47-48, who reports on separation but rejects as a foreign import notion of contamination.

10. Afinogenov, Zhizn' zhenskogo naseleniia, 77.

11. G. Popov, Russkaia narodno-bytovaia meditsina (St. Petersburg, 1903), 358; E. A. Pokrovskii, Ob ukhode za malymi det'mi (Moscow 1903), 13-20.
12. E. A. Pokrovskii, Fizicheskoe vospitanie detei, 77-78, 100-101.
13. Popov, Russkaia narodno-bytovaia meditsina, 352-61; S. Khotovitskii, "O nekotorykh pogreshnostiakh i predrassudkakh kasatel'no sodержaniia detei v pervoe vremia ikh zhizni," Trudy santpeterburgskogo obshchestva russkikh vrachei (1896), part 1, 160-66.
14. The practice of early use of solid food was condemned by a Russian doctor as early as 1780: see Semen Zybeline, Slovo o sposobe, kak predupredit' možno nemalovazhnuuiu mezhdru prochimi medlennogo umnozheniia naroda prichinu, sostoishchuiu v neprilichnoi pishche, mladentsam davaemoi v pervye mesiatsy ikh zhizni (Moscow, 1780), 13-18. For late nineteenth century: Afinogenov, Zhizn' zhenskogo naseleniia, 99; Balov, "Rozhdenie i vospitanie," 99-100; P. F. Kudriavtsev, Derevenskie iasli-priiuty v Simbirskoi gubernii letom 1899 g (Syzran, 1900), 26; P. A. Peskov, Opisanie durykinskoi volosti moskovskogo uezda v sanitarnom otnoshenii, Sbornik statisticheskikh svedenii po moskovskoi gubernii, otdel sanitarnoi statistiki, vol. 1, section 3 (Moscow, 1879), 158-60; Popov, Russkaia narodno-bytovaia meditsina, 356. For additional sources and archival references to this behavior, see David L. Ransel, Mothers of Misery: Child Abandonment in Russia (Princeton, 1988), 269-70.
15. Popov, Russkaia narodno-bytovaia meditsina, 356. LGIA, f. 8, op. 1, d. 187ch4, ll. 183-84. Afinogenov, Zhizn' zhenskogo naseleniia, 99. For reports on the upper Volga region

that is being compared here, see E. P. Busygin, et al., Russkaia sel'skaia sem'ia Chuvashskoi ASSR (istoriko-etnograficheskoe issledovanie) (Kazan, 1980), 53-55.

16. John Rickman, "Russian Camera Obscura: Ten Sketches of Russian Peasant Life (1916-1918)," in Geoffrey Gorer and John Rickman, The People of Great Russia: A Psychological Study (New York, 1949), 50-51.

17. Pokrovskii, Ob ukhode, 41-46. Field reports of foundling home officials in LGIA, f. 8 op. 1, d. 187ch2, ll. 242ob and d. 187ch4, ll. 140-41. See also Balov, "Rozhdenie i vospitanie," 94.

18. From study by Dr. N. E. Kushev of Saratov guberniia, 1879-88, cited in Nikitenko, Detskaia smertnost', 30.

19. Zarin, "Bogorodskaia volost' Vereiskogo uezda v sanitarno-statisticheskome otnoshenii," Piatyi gubernskii s'ezd vrachei moskovskogo zemstva (Protokoly zasedanii i trud) (Moscow, 1881), 182-94. Giliarovskii, Issledovaniia o rozhdenii i smertnosti detei v Novgorodskoi gubernii (St. Petersburg, 1866), 274.

20. P. I. Kurkin, "Smertnost' malykh detei," Publichnye leksii (Moscow, 1911), 28-31.

21. Examples are legion. A few references must suffice here: V. T. Demich, "Pediatriia u russkogo naroda," Vestnik obshchestvennoi gigieny," vol. 11 (1891), 127-28; P. Griaznov, Opyt sravnitel'nogo izucheniia gigienicheskikh uslovii krest'ianskogo byta i mediko-topografii Cherepovetskogo uezda (St. Petersburg, 1880), 168 (reports of women who thanked God for taking their excess children); N. Zhbankov, Vliianie otkhozhikh promyslov na dvizhenie

narodonaseleniia Kostromskoi gubernii po dannym 1866-1883 gg. (Kostroma, 1887), 85;
Otchet moskovskogo vopitatel'nogo doma za 1869 god (Moscow, 1870), 29-31.

22. T. Ivanovskaia, "Deti v poslovitsakh i pogovorkakh russkogo naroda," Vestnik vospitaniia, vol. 19 (1908), 124.

23. Balov, "Rozhdenie i vospitanie," 93-100; Demich, "Pediatriia," *passim.*; Popov, Russkaia narodno-bytovaia meditsina, 357-62.

24. Balov, "Rozhdenie i vospitanie," 96, 99; the same was true of babies who did not cry at their baptism or who were born with their faces toward the floor, according to Balov, "Ocherki Poshekhon'ia," 96, 100. Other examples in Afinogenov, Zhizn' zhenskogo naseleniia, 86-87.

25. In a 20 year period (1836-1855) in the town of Borovichi in Novgorod province 2,138 illegitimate children were born and not a single one survived. By contrast, religious schismatics and some other communities in Novgorod province were more tolerant and many of their illegitimate children survived. Giliarovskii, Issledovanie o rozhdenii, 338.

26. Susan C. M. Scrimshaw, "Infant Mortality and Behavior in the Regulation of Family Size," Population and Development Review, 4:3 (September 1978), 383-403; Monica Das Gupta, "Selective Discrimination against Female Children in Rural Punjab, India," Population and Development Review, 13:1 (March 1987), 77-100; Nancy E. Levine, "Differential Child Care in Three Tibetan Communities: Beyond Son Preference," Population and Development Review, 13:2 (June 1987), 281-304.

27. Nancy Scheper-Hughes, "Culture, Scarcity, and Maternal Thinking: Maternal Detachment and Infant Survival in a Brazilian Shantytown," Ethos, 13:4 (Winter 1985), 291-317.

28. The question of birth order in the survival of Russian children is, however, one that deserves further study. Scattered evidence I have seen shows the usual J curve of high mortality for the first birth, then a drop followed by gradually rising mortality in later births: but with remarkable distortion; for example, A. N. Antonov, Smertnost' grudnykh i malykh detei, ee prichiny i mery bor'by (Leningrad, 1931), 57; also note comment on Karamenko study in Nikitenko, Detskaia smertnost', 21. Sex had been an important determinant in the decision to kill or abandon Russian children in the past (as was true of many other societies). See Ransel, Mothers of Misery, chapter 7.

29. Balov, "Rozhdenie i vospitanie," 99-100.

30. The Italics Are Mine, trans. Philippe Radley (New York, 1969), 17.

31. Ivanovskaia, "Deti v poslovitsakh i pogovorkakh," 1-2.

32. Novosel'skii, Smertnost', 144.

33. Ibid, 145-46. Detskaia pomoshch', 1892, no. 13, 461-62.

34. V. I. Nikol'skii, Sanitarnoe issledovanie Penzenskoi gubernii: Statistika naseleniia gorodov i uezdov za 10 let (1880-89 gg.) (Penza, 1893), 56.

35. Sergei Ershov, Materialy dlia sanitarnoi statistiki sviiazhskogo uezda (St. Petersburg, 1888), 113.

36. The following tables indicate the difference in the seasonality of births in the two communities.

Monthly Percentage of Annual Births in Orenburg Province (A) and in Sviashk District of Kazan Province (B)

A

	J	F	M	A	M	J	J	A	S	O	N	D
Orthodox	9.0	8.2	8.4	7.5	7.6	8.4	9.0	8.9	7.6	9.7	8.8	7.0
Muslim	11.7	9.2	9.4	7.9	7.1	6.9	7.2	7.1	7.9	8.4	8.0	8.9

Source: Kenigsberg, Sanitarnoe sostoianie, 44.

B

Orthodox	9.4	7.7	7.1	6.7	6.9	8.6	9.8	9.0	7.9	9.6	9.7	7.3
Muslim	11.8	8.9	9.6	6.5	5.5	6.5	8.7	8.5	7.1	8.2	8.2	9.9

Source: Ershov, Materialy, 172.

37. A. A. Sukharev, Kazanskie tatory (uezd kazanskii). Opyt etnograficheskogo i mediko-antropologicheskogo issledovaniia, (St. Petersburg, 1904) 39, observed women doing light field work. N. I. Vorob'ev, "Kazanskie tatory," Materialy po izucheniiu Tatarstana, vol. 2, eds. G.G. Ibragimov and N.I. Vorob'ev (Kazan, 1925), 162, says they ordinarily did not work in fields.

38. R. G. Mukhamedova, Tatary-Mishari (Moscow, 1972), 174.
39. Sukharev, Kazanskii tatar, 47-50; L. F. Zmeev, Medikotopograficheskoe opisanie i statisticheskii ocherk narodonaseleniia Bugul'minskogo uezda Samarskoi gubernii (Moscow, 1883), 23.
40. Sukharev, Kazanskii tatar, 46. For an eighteenth-century report, see Mil'kovich, Byt i verovaniia tatar Simbirskoi gubernii v 1783 g. (Kazan, 1905), 6. The German doctor K. Fuks, who worked among the Tatars in the first half of the nineteenth century noted that village taverns on the Russian model were, even then, beginning to appear. K. Fuks, Kazanskii tatar v statisticheskom i etnograficheskom otnosheniiakh (Kazan, 1844), 5, 125.
41. V. D. Orlov, "'Kumyshka'--vodka Votikov," Vestnik obshchestvennoi gigieny, sudebnoi i prakticheskoi meditsiny, 9:1 (1891), 79-93.
42. Mil'kovich, Byt i verovaniia, 7; Sukharev, Kazanskii tatar, 30-32, 39; Afinogenov, Zhizn' zhenskogo naseleniia, 76.
43. Fuks, Kazanskii tatar, 27.
44. Sukharev, Kazanskii tatar, 41.
45. Clare E. Casey and K. Michael Hambidge, "Nutritional Aspects of Human Lactation," Lactation: Physiology, Nutrition, and Breast-Feeding, ed. Margaret C. Neville and Marianne R. Neifert (New York, 1983), 230-31. For special problems of Third World women, see: A. Chavez, C. Marinez, and H. Bourges, "The Role of Lactation in the Nutrition of Low Socio-Economic Groups," Ecology and Food Nutrition, 4 (1975), 159-68.

46. For Muslim feeding practices see: Ershov, Materialy, 115-16; A. E. Romanov, O zabolevaemosti naseleniia kuznetskogo uezda, Saratovskoi gubernii (Penza, 1883), 9.
47. M. M. Kenigsberg, O pagubnom vliianii kolossal'noi smertnosti detei i vysokoi rozhdaemosti v Rossii na proizvoditel'nye i ekonomicheskie sily strany i na kachestvennyi sostav armii (Orenburg, 1910), 12.
48. Ershov, Materialy, 116.
49. Kudriatsev, Derevenskie iasli-priiuty, 19.
50. Ershov, Materialy, 114-16; Nikol'skii, Sanitarnoe issledovanie, 54, 61-67; M. M. Kenigsberg, Sanitarnoe sostoianie Orenburgskoi gubernii po dannym estestvennogo dvizheniia naseleniia za trekhletie 1897-1899 g.g. (Orenburg, 1901), 64-67.
51. P. V. Ivanov, Materialy k izucheniiu goroda Penzy v mediko-statisticheskom otnoshenii (St. Petersburg, 1903), 124-25; Kenigsberg, Sanitarnoe sostoianie, 101-02; S. G. Kassil', Materialy i izucheniiu goroda Riazani v mediko-topograficheskom i statisticheskom otnoshenii (Riazan, 1909), 157; V. I. Ornatskii, Medikotopografiia i sanitarnoe sostoianie gubernskogo goroda Vologdy (St. Petersburg, 1888), 78-80. Tolchenov, Zhurnal, 21.
52. Conclusion drawn from data for the years 1877 to 1886.
- A. A. Bekarevich, K izucheniiu v mediko-topograficheskom i statisticheskom otnoshenii gubernskogo goroda Minska (St. Petersburg, 1890), 38, 80-95.

53. Sukharev, Kazanskii tatarskii, 40; S. I. Rudenko, Bashkirskii. Opyt etnologicheskoi monografii, part 2 (Leningrad, 1925), 257-58.
54. The expression is from Vanessa Maher, who reports that, in some Islamic societies, a husband had to give permission for his wife to nurse the child of someone else. Vanessa Maher, "Possession and dispossession: maternity and mortality in Morocco," in Interest and Emotion: Essays on the Study of the Family and Kinship, eds. Hans Medick, David Warren Sabean (Cambridge, Eng., 1984), 107.
55. Kenigsberg, Sanitarnoe sostoianie, 102.
56. Among many other examples, see: A. E. Romanov, O zabolevaemosti naseleniia kuznetskogo uezda, 9; Kudriavtsev, Derevenskie iasli-priiuty v Simbirskoi gubernii, 21.
57. P. S. Nazarov, "K etnografii bashkir," Etnograficheskoe obozrenie, 2:1 (1890), 190; Rudenko, Bashkirskii, 258.
58. Nazarov, "K etnografii Bashkir," 189. See also Rudenko, Bashkirskii, 258, 262. For a recent review of the evidence on Russian daughters-in-law, see Beatrice Farnsworth, "The Litigious Daughter-in-Law: Family Relations in Rural Russia in the Second Half of the Nineteenth Century," Slavic Review, 45:1 (Spring 1986), 49-64.
59. Co-wives could not have equal standing, and the husband normally placed one in charge, and only rarely was this the oldest wife. Reported in Nazarov, "K etnografii Bashkir," 191.
60. Discussion of normal correlation in M. Ptukha, Smertnost' 11 narodnostei Evropeiskoi Rossii v kontse XIX veka (Khar'kov--Kiev, 1928), 35-36, and statistics, 31. A more detailed

reckoning comparing Tatars and Russians in one district of Kazan province can be derived from tables in Ershov, Materialy dlia sanitarnoi statistiki, 182-85.

61. Maher, "Possession and dispossession," 109-111; Chavez, et al. "The Role of Lactation," 159-68; Casey and Hambidge, "Nutritional Aspects," 211.

62. Nikitenko, Detskaia smertnost', 24-25; Nazarov, "K etnografii Bashkir," 174-75; Ershov, Materialy dlia sanitarnoi statistiki, 93; Nikol'skii, Sanitarnoe issledovanie, 54.

63. Casey and Hambidge, "Nutritional Aspects of Human Lactation," 211, 227-28.

64. For recent review of this issue, see Marcia Guttentag and Paul F. Secord, Too Many Women: The Sex Ratio Question (Beverly Hills, 1983).

65. Binshtok and Novosel'skii, Materialy (1915), iii-iv.

66. I calculate that, if births and deaths of infants born to mothers from the Austro-Hungarian and Russian empires (mostly Jews) were subtracted from the total figures, the infant mortality rate for New York in 1915 would rise from its actual rate of 98 per 1000 live births to 105. Calculated from statistics published in Ernst Christopher Meyer, Infant Mortality in New York City (New York, 1921), 32-35.

67. Andrejs Plakans and Joel M. Halpern, "An Historical Perspective on Eighteenth Century Jewish Family Households in Eastern Europe: A Preliminary Case Study," Modern Jewish Fertility, ed. Paul Ritterband (Leiden, 1981), 26-27.

68. Maimon, 24-30; Zunzer, Yesterday, 1.

69. Jaques Silber, "Some demographic characteristics.."; Chubinskii, Evrei, 35-56.
70. Chubinskii, Evrei, 22; Golynts, Mogilev, 23; Iakovenko, Materialy k antropologii, 9, 15-16.
71. Sitsinskii, Akusherskaia, 41-42; for similar observations, see also Iu. Giubner, "Mikva..." Arkhiv sudebnoi meditsiny, 1868, no. 1; and P. I. Nebolsin, "Ocherki chatnogo byta evreev," Zapiski imp. RGO, po otdel. etn. vol 3 (SPb, 1873).
72. Sitsinskii, Akusherskaia, 41-42.
73. Rachinskii, "Glavnye momenty v istorii razvitiia akusherstva," Zhurnal akusherstva i zhenskikh boleznei, 1901, no. 3, 388.
74. Sitsinskii, Akusherskaia, 83.
75. Iakovenko, Materialy k antropologii, 15.
76. Giliarovskii wrote here that "all the babies" died. Hyperbole, but only a slight exaggeration. His statistics, as reported earlier in this article, indicate that about 80 percent of those born in the summer work season died. Giliarovskii, Issledovaniia o rozhdenii i smertnosti, lxxii-lxxiii.