Working-class Women's Diet and Pregnancy in the Long Nineteenth Century

What Women Ate, Why, and its Effect
On Their Health and Their Offspring

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Abstract

Food historians have revealed that what constituted a working-class British woman's diet in the nineteenth century was quite different in calorific and nutritional content from what her family consumed. This work explores the nineteenth-century maternal diet and the effect this nutritional inequality had on the health of women and their infants.

Divided into three sections, this dissertation deals with different aspects of nineteenth-century maternal nutrition. Section one explores the nineteenth-century medical understanding of diet, as well as the influences of class and traditional beliefs on eating habits, and how these factors determined the diet prescribed to mothers during pregnancy.

Section two investigates the factors that perpetuated the unequal distribution and consumption of food within households. Factors explored include regional variations in working-class diet; gender associations with foods; economic changes in material wealth and expectations, and the pressures of respectability on female food denial. This section concludes that food refusal and unequal distribution were reinforced throughout the long nineteenth century because these behaviours appeared to have value, real or imagined, as long-term economic strategies. Food refusal maintained respectability, and helped women secure an economic support network.

Mothers' self-denial seems to have secured the economic loyalties of children, making her the recipient of their income.

The final section addresses how deprivation and dietary changes affected infant and maternal health, specifically examining how insufficient vitamin D and rickets influenced birth outcomes, and how the switch from a rural diet to an urban diet contributed to a rise in neural tube disorders in Wales. The analysis of childbirth data revealed a significant correlation between rickets and childbirth complications. The findings of this section also suggest that the dietary changes that followed migration and the change from an agricultural lifestyle to a market-integrated, industrial lifestyle for a majority of the Welsh population reduced women's intake of folic acid leaving their children susceptible to neural tube disorders.

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Extended Abstract

The majority of the work on the history of Victorian working-class diet has emerged from the standard of living debate and demographic debates attempting to define the roles of food and sanitation in the population explosion of the eighteenth and nineteenth centuries. While demographic historians have produced much regarding the impact of sanitation on changes in morbidity and mortality rates, they have made comparatively few studies of the impact of diet on these rates even though they acknowledge its importance. Food historians have revealed that what constituted a poor woman's diet in the nineteenth century was quite different in calorific and nutritional content from what her husband and often her children were eating. Feminist historians have addressed the need for a separate study of these differences, but very little has been written on maternal diet and the effect this inequality had on the health of women and their infants. This work attempts to address these issues.

Of the dietary inequality suffered by women during the nineteenth century, Anthony Wohl writes: "The nutritional cost to women, and therefore to the next generation, and to children was considerable."[1] This work examines the cost by studying various aspects of working-class women's diet, especially during pregnancy, by using maternity hospital records, prescriptive literature on diet during pregnancy, personal papers, letters and memoirs, and an empirical study of infant and maternal

[1] Anthony Wohl, *Endangered Lives: Public Health in Victorian Britain* (London: J. M. Dent and Sons Ltd., 1983), 52.

health to judge the effects of nutrition on nineteenth-century maternal and infant health.

The dissertation is divided into three sections dealing with different aspects of nineteenth-century maternal nutrition. Section one explores the nineteenth-century medical understanding of diet and its effects on what women consumed while pregnant, as well as the influences of class and traditional beliefs on eating habits, and how these factors determined the diet prescribed to mothers during pregnancy. The nineteenth-century medical and political responses to new information about diet and the effect these responses had on working-class women are examined within the context of the history of nutritional discovery and the cultural perceptions of certain foods. Focusing on nineteenth-century beliefs about diet during pregnancy and lactation reveals an alternative history of concern with maternal diet which contradicts popular modern feminist theories that blame government, physicians and surgeons for the late development of antenatal care and its lack of focus on maternal diet. This study concludes that the lack of attention paid by physicians, surgeons, and health administrations to maternal nutrition during the nineteenth century was not so much due to the medicalisation of childbirth or neglect of women on the part of the government and medical community, but rather resulted from a largely incomplete understanding of nutrition or of the concrete relationship between maternal nutrition and infant health. Antenatal care developed as doctors tried to combat maternal mortality through the prevention of puerperal fever and toxaemia, which caused physicians to concentrate almost exclusively on monitoring women for labour complications, rather than working to improve the overall health of mothers and infants.

Working-class women ate significantly less than their spouses despite the increased nutritional needs brought on by repeated pregnancies and periods of lactation. Section two investigates this diet and nutritional inequality within the private domain by examining what was consumed by working-class women, when and how they ate, and the issues surrounding consumption, cooking, shopping, and family meal rituals, in order to identify those factors which perpetuated the unequal distribution and consumption of food within working-class households. Factors explored include working-class diet, its regional variations, food trends and availability; the conflict between femininity and eating, as well as the gender associations of certain foods; the pressures of working-class respectability on female food denial, and the economic changes in material wealth and expectations of domesticity that spread the practice of unequal consumption throughout working-class populations of the United Kingdom. Also examined was the relationship between gender roles and non-consumption by exploring how masculinity maintained unequal distribution of resources in the home and reinforced sacrifice as a necessary female virtue.

This section concludes that both food refusal and unequal distribution were heavily reinforced throughout the long nineteenth century because these behaviours appeared to have value, real or imagined, as long-term economic strategies. Food refusal, when practiced to maintain respectability, helped secure a local support network on which women could rely during economic difficulties. Practiced within the home, mothers' self-denial seems to have secured the economic loyalties of children, making her the preferred parent and the recipient of their income as young adults.

The final section addresses how deprivation and dietary changes affected infant and maternal health, specifically how insufficient vitamin D and resulting rickets influenced infant mortality and pregnancy complications in nineteenth-century Britain, and how the switch from a rural diet and a self-sufficient lifestyle to an urban diet and an industrial lifestyle contributed to a rise in neural tube disorders in Wales. The question of diet's effect on infant and maternal health is explored by doing a statistical analysis based on the maternity records of the General Lying-In Hospital of London during the 1880s. The analysis of childbirth data revealed a significant correlation between rickets and childbirth complications, and suggested a possible relationship between rickets and infant mortality, which a study involving a larger sample set might be able to determine conclusively. The relationship between nineteenth-century women's diet and infant health is lastly explored through a study of spina bifida in Wales in an attempt to discover why rates of spina bifida were higher in urban areas of Wales than in rural areas during the first half of the twentieth century. The findings of this section suggest that the dietary changes that followed rural to urban migration and the change from an agricultural lifestyle to a market-integrated industrial lifestyle for a majority of the Welsh population reduced women's intake of folic acid leaving their children susceptible to neural tube disorders for which they were genetically predisposed.

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Contents

Figures

Chapter 1 Introduction

Part I: Nutritional Discoveries and the Development of the Nineteenth-century Antenatal Diet

Chapter 2 Introduction to part I: A Brief History of Nutrition

Chapter 3 Maternity, Meals and the Medical Community

Part II: What Women Ate

Chapter 4 Introduction to part II

Chapter 5 Food in the Home: An Historiography of Unequal Consumption and Food Distribution in the Nineteenth-century Working-class Family

Chapter 6 What Women Ate: Working-class Diet and Regional Variations

Chapter 7 Femininity and Food: Gender Associations and Unequal Consumption

Chapter 8 "Something going short in the home": Class, Respectability and Unequal Consumption

Chapter 9 The Communal Bowl and Inverse Standard of Living: More Conspicuous Consumption, Less Nutritional Consumption

Chapter 10 "Male selfishness": How Gender and Family Power Struggles Sustained Unequal Consumption

Part III: The Effects of Diet on Women's Health, Pregnancy and Children

Chapter 11 The Effects of Rickets on Nineteenth-Century Childbirth and Pregnancy Outcomes

Chapter 12 Families, Food and Spina Bifida in Wales

Chapter 13 Conclusion

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H *333*

Bibliography *334*

Figures

Figure 1 Nutrition Timeline 1760-1860 *26*

Figure 2 Nutrition Timeline 1860-1940 *27*

Figure 3 Developments in Obstetrics and Childbirth in the UK 1800-1950 *28*

Chapter 1

Introduction

In 1983, Anthony Wohl summed up the findings of Victorian social investigators and twentieth-century revisionist historians on nineteenth-century working-class nutrition: "While the total calorific intake might have been generally adequate, the Victorian working-class diet was heavy in carbohydrates and fats, low in protein, and deficient in several vitamins, notably C and D. Nearly all the diets investigated reveal a serious lack of fresh green vegetables, a low protein intake, and very little fresh milk…" Quoting an average of 2,099 calories per capita within the working-class family, Wohl wrote: "the menfolk would get considerably more than this average, the womenfolk correspondingly significantly less…"[1] Considering this information from a public health perspective, Wohl presented the implications of these conclusions in a way that previous historians had failed to do: "The nutritional cost to women, and therefore to the next generation, and to children was considerable."[2] The aim of this work is to examine this nutritional cost to women and their children, and to explore the social, political and cultural reasons that created and sustained this nutritional inequality to the detriment of women and children by using maternity hospital records, prescriptive literature on diet during pregnancy, personal papers, parliamentary papers, letters, autobiographies and memoirs, personal interviews, and an empirical study of infant and maternal health to judge the effects of nutrition on nineteenth-century maternal and infant health.

[1] Anthony Wohl, *Endangered Lives: public health in Victorian Britain* (London: J. M. Dent and Sons, 1983), 51.
[2] Anthony Wohl, *Endangered Lives*, 52.

Before the 1980s, most of the work on the history of Victorian working-class diet had been done by medical historians or social historians who had been influenced by the standard of living debate. The debate, between the "optimists" who believed that the industrial revolution improved living standards among members of the working class in the nineteenth century, and the "pessimists," who argued that working-class living standards declined as a result of the industrial revolution, initially centred around evidence such as wage and price indices to determine if there was an increase in real wages as the nineteenth century progressed. Not only was this work criticised for ignoring other ways in which industrialisation shaped living standards (e. g. the impact of urban living on health, etc.), but for ignoring the impact of the industrial revolution on women's living standards. By focusing on male wages, economic historians engaged in the standard of living debate had assumed that families were individual economic units in which wealth was equally distributed and that women had enjoyed the same living standards as men.[3] During the 1960s, the debate moved away from the study of real wages as the sole measure of living standards and began to explore other indicators for standards of living and "quality of life" factors, such as unemployment, housing, mortality and nutrition.[4]

Medical and social historians investigating Victorian diet such as John Burnett and Derek Oddy acknowledged that women's standards of living were not necessarily the same as men's and revealed that women suffered a considerable nutritional disadvantage. In 1970, Derek Oddy, eminent historian of nutrition, used data from a

[3] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," *Explorations in Economic History*, 46 (2009), 94; Stephen Nicholas and Deborah Oxley, "The Living Standards of Women During the Industrial Revolution, 1795-1820," *The Economic History Review*, 46/4 (Nov. 1993), 723-724;

[4] Paul Riggs, "The Standard of Living in Scotland, 1800-1850," in John Komlos (ed.), *Stature, Living Standards, and Economic Development: Essays in Anthropometric History* (Chicago: University of Chicago Press, 1994), 60-62; Charles Feinstein, "Pessimism Perpetuated: real wages and the standard of living in Britain during and after the Industrial Revolution," *The Journal of Economic History*, 58/3 (Sep 1998), 626-627.

survey published in 1895 to calculate that working-class men consumed a daily average of 3,320 calories while women consumed 1,870. Oddy's analysis of this survey shows men to have consumed more than double the amount of protein that women ate.[5] Much of this dietary discrepancy was attributed to the "breadwinner effect," described by Burnett (as well as 19th century social historians such as Edward Smith and Seebohm Rowntree) as a rationally-based stratagem voluntarily adopted by women to maximise the benefits of insufficient wages and ensure the health of the male wage earner, or earners, in the family. Feminist historians have found fault with this explanation for a variety of reasons, and have considered the evidence on which the generalisations regarding working-class women's diets were based to be insufficient. For example, while Oddy claims that the study from which he estimated these calorie-intakes was very sensitive to intra-family food distribution, the sample size was remarkably small: 21 men and 6 women. Therefore, Oddy's averages can only be considered to be very rough estimates of the amounts men and women were consuming.[6] Women's historians have suggested the need for a separate study of these differences, but very little social history has since been written on this topic or the effect this inequality had on the health of women and their infants.[7] For the past two decades, however, Economic historians have been using anthropometric and demographic evidence to link nineteenth-century women's nutritional disadvantage to health outcomes.

As the standard of living debate raged among economic historians, demographic historians attempting to explain the mortality decline and population explosion of the eighteenth and nineteenth centuries created mortality studies which

[5] D. J. Oddy, "Working-Class Diets in Late Nineteenth-Century Britain," *Economic History Review*, new ser., 23/2 (Aug. 1970), 320-21.
[6] Oddy, , "Working-Class Diets in Late Nineteenth-Century Britain,"320.
[7] For a detailed exploration of the "breadwinner effect" and alternative theories of the causes of unequal consumption, see Chapter 3 entitled "Food in the Home" below.

explored the relationship between nutrition and disease. Historian Thomas McKeown's theory on the primacy of improved nutrition as a cause of the mortality decline prompted extensive debate among demographic historians and investigations into the link between diet and mortality, especially the link between inadequate nutrition and tuberculosis. However, McKeown's work was heavily criticised by his fellow historians and, by the early 1980s, the focus of the study of mortality decline had shifted to the role of sanitation and the elimination of mortality crises on changes in morbidity and mortality rates.[8]

In 1977, Sheila Ryan Johansson explored this relationship between nutrition and mortality rates to investigate women's standard of living in her work, "Sex and Death in Victorian England: an examination of age- and sex-specific death rates, 1840-1910." Her study of mortality patterns revealed that, despite an overall longevity advantage among Victorian women, excess female mortality existed where modern life tables show a mortality advantage. She also demonstrated that not only did women of childbearing age suffer from a mortality disadvantage, but that young women and girls did as well, which she attributed to poorer nutrition among women of *all* classes and therefore an increased susceptibility to tuberculosis.[9] Johansson also compared the differential mortality rates of urban- and rural-dwellers and discovered regional variations in excess mortality rates: while urban females had a mortality advantage over urban males, rural women had higher mortality rates than urban men. Johansson concluded that in the early decades of the industrial revolution, women's

[8] See Thomas McKeown's "Fertility, Mortality and Causes of Death: an examination of issues related to the modern rise of population," *Population Studies*, 32/3 (Nov. 1978), 535-542; and "Food, Infection and Population," *Journal of Interdisciplinary History*, 14/2 (Autumn 1983), 227-247. For a comprehensive, concise historiography of the work on nutrition which emerged from studies of mortality decline, see the first chapter of Robert William Fogel's *The Escape from Hunger and Premature Death, 1700-2100: Europe, America and the Third World* (Cambridge: CUP, 2004), 1-19.
[9] Sheila Ryan Johansson, "Sex and Death in Victorian England: an examination of age- and sex-specific death rates, 1840-1910," in Martha Vicinus (ed.), *A Widening Sphere: Changing Roles of Victorian Women* (Bloomington: IUP, 1977), 164-170.

economic opportunities in rural areas were depressed, and as they could not supplement their family's wages, they were fed less than male wage earners in the household.[10]

Johansson expanded on her earlier findings in her essays, "Welfare, Mortality and Gender" and "Excess Female Mortality: constructing survival during development in Meiji Japan and Victorian England," comparing mortality data from Victorian England to her findings on excess female mortality in Meiji Japan and modern India, with their similar excess female mortality among girls and young women.[11] Based on the cultural practices of these societies, Johansson hypothesized that differential mortality in younger age groups was specifically due to parental neglect of female children and to the apportioning of better nutritional resources to male children. Johansson suggested that this was the result of the perceived lesser economic value of girls directly resulting from a lack of economic opportunities for young women as a result of the industrial revolution.[12]

Several economic historians have since examined Victorian excess female mortality. Kirsty McNay, Jane Humphries and Stephan Klasen's working paper "Death and Gender in Victorian England and Wales" strengthened the argument that poor nutrition among adult women led them to die at higher rates than men, but they provided evidence suggesting that there was no feeding bias against female children.[13] More recent work by these authors has closely examined regional variations in excess

[10] Sheila Ryan Johansson, "Sex and Death in Victorian England: an examination of age- and sex-specific death rates, 1840-1910," 174-178.
[11] Sheila Ryan Johansson, "Welfare, Mortality and Gender: continuity and change in explanations for male/female mortality differences over three centuries," *Continuity and Change*, 6/2 (1991), 135-177; see pages 159-161 for comparisons to India. Also "Excess Female Mortality: constructing survival during development in Meiji Japan and Victorian England," in A. Digby and J. Stewart (eds), *Gender, Health and Welfare* (London: Routledge, 1996), 32-66.
[12] Johansson, "Excess Female Mortality: constructing survival during development in Meiji Japan and Victorian England," 54-56.
[13] K. McNay, J. Humphries, S. Klasen, *Death and Gender in Victorian England and Wales: Comparisons with Contemporary Developing Countrie*s, DAE Working Paper No. 901 (Cambridge: Cambridge University, 1998) 24-26.

female mortality and revealed that areas with excess female mortality among adult women were not necessarily the same regions that possessed excess female mortality among young women and girls. Their findings suggest that local economic opportunities may not have been the sole factor in determining differential mortality.[14]

Soon after Sheila Ryan Johansson used mortality data to investigate women's living standards, economic historians turned to anthropometric evidence as an alternative way of measuring biological welfare and living standards.[15] However, the early work of economic historians and anthropometric historians engaged in the standard of living debate was very male-centric. Historians using biometric evidence from military records lamented both the gender bias of their evidence and its skewed nature (as the data came only from men who met recruiting standards and therefore excluded the shortest and unhealthiest).[16]

In 1993, Stephen Nicholas and Deborah Oxley brilliantly redressed the dearth of research on female stature by examining the height data of transported male and female convicts from England and Ireland born between 1826 and 1840. Nicholas and Oxley revealed that while there was little distinction between Irish women born in rural and urban areas, English women born in urban areas were significantly shorter than their rural counterparts, as were urban-born men. However, the heights of rural women fell more rapidly than those of urban-born women in this period.[17] From the late 1790s, the height of urban Irish women, who were taller than urban English

[14] K. McNay, J. Humphries, S. Klasen, "Excess Female Mortality in Nineteenth-Century England and Wales: a regional analysis," *Social Science History*, 29/4 (Winter 2005), 649-681.
[15] R. Floud, K. Wachter and A. Gregory, *Height, Health and History: nutritional status and the United Kingdom, 1750-1980* (Cambridge: CUP, 1990), xviii-xx.
[16] Roderick Floud, Kenneth Wachter and Annabel Gregory, *Height, Health and History: nutritional status and the United Kingdom, 1750-1980*, 23.
[17] Stephen Nicholas and Deborah Oxley, "The Living Standards of Women During the Industrial Revolution, 1795-1820," 733.

women, actually rose, as did that of rural Irish women, who began the period shorter than rural English women and eventually surpassed them. Nicholas and Oxley suggested that in non-industrialized Ireland, the standard of living actually improved before 1840, while for both rural and urban English women, their declining stature indicated deteriorating living standards until at least 1815.[18] Regarding the greater stature of Irish women, Nicholas and Oxley write: "Ireland was not experiencing industrialisation which limited the job opportunities of women. Moreover, the Irish diet was particularly nutritious, protecting women and children from short-run food insults."[19] Like Johansson, Nicholas and Oxley suggested that this decline in women's welfare was a result of gender-biased feeding directly resulting from women's decreasing economic status due to the industrial revolution: "The fall in heights of English women relative to men is consistent with the increasing gender inequality in intrahousehold food allocation. The heights of females born in rural areas fell more rapidly than those of urban-born women because there were fewer job opportunities in rural areas."[20]

Later studies by Nicholas and Oxley, and those by Stephen Nicholas and Paul Johnson, showed similar patterns in height decline from different periods during the nineteenth century. In "Health and Welfare of Women in the United Kingdom, 1785-1920," Johnson and Nicholas examined heights of convicts and mortality statistics and concluded that while women's welfare declined during the earlier part of the industrial revolution, "there is no evidence that women's living standards suffered

[18] Nicholas and Oxley, "The Living Standards of Women During the Industrial Revolution, 1795-1820," 733-735.
[19] Ibid., 739-740.
[20] Ibid., 739.

more than those of men in the post-1825 period."[21] However, Johnson and Nicholas argued that both women and men continued to suffer from a decline in welfare – "The substantial decline in both male and female heights in the 1840s revealed by the criminal data indicates that workers in this period were subjected to a substantial nutritional insult," – and that, based on varying heights from around the UK, that there were regional variations in the living standards of women.[22]

Despite the general consensus from demographic and anthropometric historians that living standards among the working classes declined, at least during the first half of the nineteenth century, and that differential nutrition was the cause of excess female mortality and declining stature, there has been disagreement among historians as to whether or not female children were systematically discriminated against and whether or not the decline in female economic opportunities was directly responsible for the unequal sharing of nutritional resources between men and women. These areas of contention offer fertile ground for further exploration, and this thesis is primarily concerned with the latter issue.

After re-examining a variety of height and mortality statistics, historian Bernard Harris expressed reservations about some of the conclusions reached by his fellow historians. Harris writes, "although Nicholas and Oxley were able to show that there was a decline in the labour market position of adult women, they were unable to produce any direct evidence to show that this led to any systematic discrimination in the distribution of resources to female children," although he accepts that "While it is difficult to show that parents discriminated systematically against female children,

[21] Paul Johnson and Stephen Nicholas, "Health and Welfare of Women in the United Kingdom, 1785-1920," in R. Steckel and R. Floud (eds.) *Health and Welfare during Industrialized* (Chicago: University of Chicago Press, 1997), 222.
[22] Paul Johnson and Stephen Nicholas, "Health and Welfare of Women in the United Kingdom, 1785-1920," *Health and Welfare during Industrialization*, 227-228.

there is little doubt that females did suffer systematic disadvantages in adulthood."[23] However, Harris argues that because of evidence suggesting that unequal distribution of food was a pre-industrial practice, these systematic disadvantages were not caused by the "decline in the labour market position of adult women" resulting from the industrial revolution, but were at most exacerbated by it.[24] Regarding these systematic disadvantages among adult women, Harris writes, "there is considerable evidence to show that women in poorer families discriminated against themselves."[25] Harris also warns that one of the factors hindering the study of gender-related differences in nineteenth-century health and mortality is "the difficulty of obtaining direct evidence of differences in the distribution of resources and work responsibilities within the family," as well as "the parallel difficulty of distinguishing between the social and the biological causes of gender differences in health and mortality."[26] Each one of Harris's statements highlights a gap in the existing literature that I will address in this dissertation.

While an investigation of differential feeding of children in the home is beyond the scope of this thesis, Harris's statement regarding Nicholas and Oxley makes an interesting point. In all of the literature reviewed above, the link between the decline in economic opportunities for women and the systematic nutritional discrimination that led to their lower heights and excess mortality rates was largely taken for granted. Harris essentially attributes women's deprivation to the "breadwinner theory," and uses examples from Victorian investigator Dr. Edward

[23] Bernard Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," in J. Komlos and J. Baten (eds) *The Biological Standard of Living in Comparative Perspective* (Stuttgart: Franz Steiner Verlag, 1998), 424 and 417.
[24] Bernard Harris,"Gender, Health and Welfare in England and Wales Since Industrialisation," *Research in Economic History*, 26 (2008), 194; Harris cites Laura Oren, whose evidence regarding traditions of unequal consumption will be critiqued in **Chapter 2 on page 75.**
[25] Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," *The Biological Standard of Living in Comparative Perspective*, 418.
[26] Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," *The Biological Standard of Living in Comparative Perspective*, 414.

Smith and Derek Oddy to suggest that women were complicit in their disadvantages in order to provide nourishment for the wage earner within the sole male wage-earner household created by the industrial revolution.[27] The inadequacy of this simplistic "breadwinner" argument, as indicated above in this introduction and which will be examined at length later in this paper, is indicated by the vastly different reasoning of other economic historians such as Horrell, Meredith and Oxley, and McNay, Humphries and Klasen as to how the lack of economic opportunities for women translated into widespread nutritional inequality.[28] Horrell, Meredith and Oxley, and McNay, Humphries and Klasen blame the industrial revolution for affecting the bargaining power of the male wage-earner and the dependant wife within the family, with the woman being deprived of entitlement to an equal share of food due to her reduced economic value, and the man being in a position to demand more food than is necessarily necessitated by his role as earner because of his wife's increased dependence on him.[29]

This thesis is dominated by the question of what exactly created and sustained this systematic nutritional deprivation of working-class women that affected their health and welfare so negatively. Were they complicit or were they victims suffering from a loss of power within their households? And was the economic system created by the industrial revolution responsible for the unequal distribution of nutritional resources? The first two sections of this thesis revolve around questions such as these. I aim to show that the industrial revolution was just one of many factors which interacted and culminated in the vast institutionalized nutritional inequality that

[27] Harris reiterates this argument in the more recent "Gender, Health and Welfare in England and Wales Since Industrialisation," *Research in Economic History*, 26 (2008), 194.
[28] See pages 76-80.
[29] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," *Explorations in Economic History*, 46 (2009), 95; McNay, Humphries and Klasen, *Death and Gender in Victorian England and Wales: Comparisons with Contemporary Developing Countrie*s, DAE Working Paper No. 901, 17.

plagued nineteenth-century working-class women. The way in which I hope to accomplish this task is by directly addressing one of the difficulties of studying gender-related differences in health listed by Harris: to find "direct evidence of differences in the distribution of resources and work responsibilities within the family."[30] Using a variety of primary sources and autobiographical material, this work will return the debate surrounding women's unequal consumption to the realms of social and women's history, as feminist historians had desired two decades ago, in order to investigate cultural and social contributions to women's differential welfare, especially those shaping distribution of resources within the family unit. I will use a "bottom up" approach advocated for medical history by Welsh historian Steven Thompson to supplement the mortality and anthropometric data previously used to explore the relationship between nineteenth-century women's diet and welfare. Thompson writes that this kind of approach is necessary, as it "ensures that official or professional views are complimented by lay attitudes and popular perceptions."[31] Investigating women's own motivations and cultural and social pressures regarding their diet is important as, "perceptions of the surrounding environment and of the determinants of health led ordinary people to act in a way that had consequences for their lives and for their health."[32]

The third section of this thesis explores nutrition-related health problems and how they affected nineteenth-century working class women. The literature exploring the heights and mortality rates of nineteenth-century working class women is brilliant and useful in that the anthropometric and demographic data provide evidence to support the argument that the phenomenon of differential distribution of nutritional

[30] Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," *The Biological Standard of Living in Comparative Perspective*, 414.
[31] Steven Thompson, *Unemployment, Poverty and Health in Interwar South Wales* (Cardiff: University of Wales Press, 2006), 4.
[32] [32] Steven Thompson, *Unemployment, Poverty and Health in Interwar South Wales*, 5.

resources occurred, and that it negatively impacted female health. However, Harris's warning on the difficulty of distinguishing between the social and the biological causes of gender differences in health and mortality," is valid.[33] It is difficult to draw a *direct* link between heights and nutritional insults because of two factors: a) height measures "nutritional inputs and environmental impacts during the growing years," and as Johnson and Nicholas inform their readers: "disease may also retard growth by impeding the absorption of nutrients and diverting nutrition to combat infection;"[34] and b) "Malnutrition and illness may interact to produce an effect on height larger than the separate effects of each in isolation."[35] Horrell, Meredith and Oxley address this fact in their work "Measuring Misery: body mass, ageing and gender inequality in Victorian London," and offer the study of body mass as a complimentary alternative to heights to examine the link between differential nutrition and women's living standards.[36] Similarly, the final section of this thesis is an attempt to investigate the role of nutrition in nineteenth-century women's health using alternative methods. By studying maternity outcomes and nutrition-related birth defects, a stronger link between women's diet and their health and mortality (and the health and mortality of their children) can be established to contribute to a fuller understanding of the implications of the unequal distribution of nutritional resources.

The period examined in this thesis encompasses the entirety of the long nineteenth century, extending from the 1790s to the start of the First World War. The Napoleonic Wars and bad agricultural conditions at the very start of the nineteenth

[33] Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain," 414.
[34] Stephen Nicholas and Deborah Oxley, "The Living Standards of Women During the Industrial Revolution, 1795-1820," *The Economic History Review*, 46/4 (Nov. 1993), 730; Johnson and Nicholas, "Health and Welfare of Women in the United Kingdom, 1785-1920," *Health and Welfare during Industrialization*, 207.
[35] Johnson and Nicholas, "Health and Welfare of Women in the United Kingdom, 1785-1920," 207.
[36] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," *Explorations in Economic History*, 96.

century mark the beginning of many swift changes in working-class nutrition and dietary traditions. The rapid urbanisation and industrialisation that followed, along with common land enclosures and the more general closure of the countryside, the repeal of the Corn Laws and, towards the end of the century, advancements in agriculture and food technology created dietary options and conditions that greatly altered working-class meals and made them significantly different from the traditional working-class diet of the previous three centuries. This period also saw significant changes specifically to women's diet, largely as a result of the self-denial of food and unequal food consumption within households. Although several historians have suggested that the unequal allocation of food between men and women, as well as women eating less than other family members, is an old, pre-industrial tradition,[37] I aim to show that social and economic changes from the early Regency period to the late Edwardian period expanded and cemented the practice, to such an extreme that it became a defining feature of working-class wife- and motherhood.

This work investigates the diets and nutrition of rural and urban working-class women during this time period, specifically the poorer half of the Victorian working class, but not necessarily the "working poor." In 1889, Charles Booth estimated that those living in poverty (which he defined as a household making less than 18-20 shillings weekly) in London represented thirty percent of the population. Similarly, in his study of poverty in York published in 1901, Seebohm Rowntree informed his readers "That nearly 30 per cent of the population are found to be living in poverty is

[37] Laura Oren, "The Welfare of Women in Laboring Families: England, 1860-1950," in Mary S. Hartman and Lois Banner (eds), *Clio's Consciousness Raised* (London: Harper and Row, 1974), 227. Oren cites the work of Natalie Davis, Ivy Pinchbeck and Alice Clark. **See page? for a critique of this work**

a fact of gravest significance."[38] As illustrated by Rowntree and historian Carl Chinn, there was no clear and consistent demarcation between the prosperous working class and the working poor. While artisans and skilled labourers may not have had to contend with inconsistent wages and regular seasonal poverty as unskilled workers and general labourers did, the poor "did not belong to a closed caste." Chinn writes, "In an age when the state made little provision for those who suffered misfortune, the family of a skilled man could easily be reduced to an existence of acute need."[39] Illness, economic depression, life stage, and increasing family size created households among all levels of the working class that were periodically marred by deprivation.[40] Even women who were living in households where there was no consistent lack of resources could find themselves facing intervals of deprivation and the unequal distribution of nutritional resources. Hence, the experiences of unequal nutrition deprivation of women from many different subgroups of the British working-class are included in this work.

This dissertation is divided into three sections dealing with different aspects of nineteenth-century female and maternal nutrition. First, maternal nutrition is examined in its political and medical context. Section one explores the nineteenth-century medical understanding of diet and how this understanding may have affected what women consumed while pregnant, explaining why nutrition did not become a focus of antenatal care until the 1930s. Section one also explores how traditional medical beliefs concerning eating habits, as well as emerging information and changing attitudes within the medical community, determined the diet prescribed to mothers during pregnancy during the long nineteenth century. For this section,

[38] Carl Chinn, *They Worked All Their Lives: women of the urban poor in England, 1880-1939* (Manchester: MUP, 1988), 2; and Seebohm Rowntree, *Poverty: a study of town life* (4th edn, London: Macmillan, 1902), 118.
[39] Chinn, *They Worked All Their Lives: women of the urban poor in England, 1880-1939*, 3.
[40] Rowntree, *Poverty: a study of town life* (4th edn, London: Macmillan, 1902), 119.

extensive use was made of hospital records, especially doctors' notes in patient records and accounts illustrating food expenditure, which revealed the kinds of foods offered to patients as well as the nutritional priorities and attitudes regarding diet held by doctors and hospital administrations. Articles from *The Lancet* and the *British Medical Journal* were also reviewed and considered alongside prescriptive literature from the middle and end of the nineteenth century to illustrate the contemporary beliefs of the medical community as well as the disparity which sometimes exists between recent medical discovery and a lay understanding of health. Such research was necessary to determine what working-class women understood and were being taught about their well-being during pregnancy. Ultimately, this section focuses on how the agendas of medical and political agencies affected women's consumption, especially during their antenatal period, and how this largely middle-class discourse determined the course of antenatal provision in England.

Section two investigates diet and nutritional inequality in the private domain, mostly in its domestic context and as influenced by working-class attitudes, local provision and economic constraints. This section aims to determine what was consumed by working-class women, when and how they ate, and the issues surrounding consumption (such as gender hierarchy and economics within the family), cooking, shopping, and family rituals surrounding meals. It addresses the question of why working-class women ate significantly less than their spouses despite the increased nutritional needs brought on by repeated pregnancies and periods of lactation. The first chapter of the second section will explore the major arguments of the debate surrounding women's unequal consumption. It will focus on revealing their weaknesses and discuss the conclusions that such an analysis has brought about. After a discussion of the historiography of women's diet, I will consider the breadwinner

theory of unequal consumption, rational discrimination, ideas of male selfishness and gender inequality, need-perception, and ultimately my findings concerning ideas of femininity and status through non-consumption, which strongly contributed to the self-denial and unequal consumption perpetuated by working-class women. The section progresses to cover each topic of this multi-faceted reason for unequal consumption. Chapter three focuses on working-class diet, its regional variations, food trends and availability, while chapter four explores the conflict between femininity and eating, as well as the gender associations of foods such as meat and sugar. Chapter five covers the pressures of working-class respectability on food choice and preparation and its effect on female food denial, while, in a similar vein, chapter six discusses economic changes in material wealth and expectations of domesticity that spread the practice of unequal consumption throughout working-class populations of the United Kingdom. Chapter seven returns to the relationship between gender roles and non-consumption by exploring how masculinity maintained unequal distribution of resources in the home and reinforced sacrifice as a necessary female virtue.

Section three explores the correlations between reproductive health and female nutrition, first by examining the impact of rickets, caused by a vitamin D deficiency, on labour complications and maternal and infant mortality, followed by a study of neural tube defects in Wales to determine the impact of changing maternal diets due to urbanisation and industrialisation on the health of children. The first chapter of this section, chapter 8, will analyse data from London maternity hospitals in order to re-examine the conclusions concerning maternal mortality and rickets that other historians, such as Irvine Loudon, have developed. By using a more class-sensitive approach, this chapter will explore the impact of rickets on working-class women,

specifically on their mortality and morbidity rates and those of their infants. Chapter ten will use a variety of primary sources and medical information to suggest an historic explanation for the pattern of spina bifida in south Wales which emerged in the twentieth century, and to speculate on a possible link between the demographics of the disease and changes in the traditional Welsh diet.

Because diet, especially diet during pregnancy, is so often a combination of economic factors and personal choice, it was especially necessary that this dissertation focus on how greater social and economic forces impacted women at an individual, personal level. Such a requirement necessitated the use of sources traditionally considered less-objective, namely autobiographies and oral history materials. Indeed, it is nearly impossible to research working-class history without reliance on such sources. Elizabeth Roberts writes:

> It is rather less common to hear or read about how working-class people saw their own lives, they were and still are less likely to keep diaries, write letters or enter items in account books than their more prosperous, educated and leisured contemporaries. In the absence of this personal documentary evidence, oral evidence is vital. Through old people's spoken testimony about their lives and those of their parents, one can attempt to reconstruct a picture of everyday life over the last century.[41]

Considering the use of autobiographies, which, because of their rarity among members of the nineteenth-century working class, are often seen as unrepresentative of the feelings of the majority of this population, I heartily agree with David Vincent, who writes:

> As Wilhelm Dilthey, who was one of the first to point out the importance of autobiography for the historian, emphasized, 'Autobiography is merely the literary expression of a man's reflection on the course of his life. Such reflection though it

[41] Elizabeth Roberts, *A Woman's Place: an oral history of working-class women 1890-1940* (Oxford: Basil Blackwell, 1984), 3.

> may be limited in extent, is frequently made by every individual. It is always present and expresses itself in ever new forms.' The mere fact, therefore that the action of recollection was translated into a written form and then, in the majority of cases, published, does not in itself isolate the contents of an autobiography from the experiences of those who have remained silent. Rather the autobiography can be seen as projecting a pencil of light into the darkness of the unspoken memories of men and women whose lives were conditioned by the same social experience.[42]

While I have taken care to account for what some would consider weaknesses in these more personal, subjective sources, namely the unreliability of memory, especially over many decades, the political agendas of compliers and publishers (such as the Women's Cooperative Guild, various economic guilds, the Fabian society, etc.), and the presentation of certain events as narrative devices (particularly in autobiographies), I have also found that these "weaknesses" can be strengths. Concerning the presence of food-related memories in individual sources, while some may speculate on the to-the-letter accuracy of events described or the universality of depicted circumstances, the strength of such recollections, along with the agreement between sources, is an indicator of the importance of food and hunger as central themes in working-class life. The use of food-related memories, especially those relating to family life, as narrative devices, i.e. anecdotes employed to convey character qualities to a reader by using culturally-understood symbols, may signify an exaggeration of a behaviour or an event, but also reveals the idealisation of certain behaviours, such as maternal sacrifice, and the power that such cultural ideals held over the working-class population.

When using oral testimony or materials based on oral testimony (such as the manuscripts from the Museum of Welsh Life) I made a point of listening or reading for these cultural symbols, rather than judging the value of a piece of evidence on its

[42] David Vincent, *Bread, Knowledge and Freedoom: a study of nineteenth-century working-class autobiography* (New York and London: Methuen, 1981), 7.

factual accuracy, or basing an argument on a literal interpretation of any given comment. I was careful not to assume that the behaviour of a particular family was a cultural norm unless a pattern emerged from a collection of local accounts or across the entirety of the first-hand accounts examined for this work. Often the significance of a testimony was discovered in exploring the implications of *why* a given person remembered what they remembered. Throughout this thesis, I have also made a special effort to include the non-verbal aspects of an interview (e.g. laughing, vocal gestures such as gasps or illustrative sounds) to better convey a statement in the manner in which it was expressed. For example, it is difficult to convey sarcasm when converting an oral testimony into a written piece of evidence; where necessary, I have tried to indicate humour to better communicate the spirit in which a point was made by a respondent. I have also been liberal in the use of bracketed statements to clarify oral testimony, as often comments were in response to interviewers' questions and would not make sense as free standing quotations, or where references were made by respondents to earlier parts of the interview.

The use of oral history sources undoubtedly enriched this study, offering an excellent insight into the way food and resources were distributed within the family, and revealing women's personal reflections on their diets and experiences of childbirth. Much of the value of oral history sources lies in the fact that, unlike evidence from nineteenth-century social surveys or collections of working-class writing, they are not pre-selected or edited according to the agenda of the compiler. The same is true about the benefits of oral history over autobiography: the information is not constructed over time around the author's self-image and the memories are not forced into an artificial narrative form. Most of the content of an oral testimony is a spontaneous response, which lends itself to generalisation, but

produces rich and nuanced evidence when the interviewer pursues a line of questioning past the initial knee-jerk response to an inquiry.

However, oral evidence is subjected to the biases interviewers, as they construct the questions and decide on which topics they wish the respondent to elaborate. Lucinda McRay Beier draws attention to this drawback of oral history in her book *For Their Own Good: the transformation of English working-class health and culture, 1880-1970*, commenting that oral history is: "the only form of historical evidence deliberately created by the historian, who devises the questions, selects the informants, initiates the conversations, and makes sure that the resulting information can be accessed by scholars."[43] Because none of the oral testimony included in this work was created by me personally, my research had been at the mercy of the interviewers. The memories which I would have wished to clarify of men and women interviewed twenty or thirty years ago have now been lost forever. Another limitation of these sources is that the information comes from respondents born at the end of the period of study encompassed by this dissertation (roughly between the late 1880s to 1910), so it is impossible to get an impression from this type of evidence of how diet and distribution of resources may have changed over the century. Regarding my own personal biases as to the selection of oral history and other primary sources, I must confess that Bernard Harris was correct when stating that direct evidence from members of the working class regarding their own choices in diet and distribution within their households is very hard to come by. I attempted to choose autobiographies, and archives containing manuscripts and oral history testimonies from an assortment of regional areas of the UK (e.g. London, the southeast, the midlands, the north and Wales) and essentially listened to any oral history interview I

[43] Lucinda McRay Beier, "*For Their Own Good: the transformation of English working-class health and culture, 1880-1970* (Columbus: Ohio State Univ. Press, 2008), 14.

could find of any member of the working class born before 1910 which was listed as containing any reference to food or childbirth. Of course, my selection of oral history archives was also limited by time and funding constraints.

Throughout this work, I have made a sincere effort to uncover the personal feelings and reasons which compelled women to eat less than their husbands, and, to a degree, participate in the unequal sharing of resources. When discussing the problematic interpretation of early modern female literary figures characterized by non-eating, Nancy Gutierrez writes:

> Thus, the meaning of an individual act of food refusal, in any given cultural context, may be unknowable, or may be multiple rather than discrete…Unless historical figures or literary characters that become the subject of news or fictional narratives explicitly note their intentions, the reason for their actions cannot be assumed – and even if they do such assertion can be suspect.[44]

It is my contention that the meaning of food refusal among nineteenth-century working-class women is not discrete. It is with careful scrutiny and subtlety that I wish to explore the many assertions about food refusal provided by nineteenth-century women to reveal these "explicit and subliminal cultural pressures."[45] Many of the stated intentions and explanations about food refusal and unequal consumption in specific sources are consistent and perceptive, and shed invaluable light on the myriad reasons for this phenomenon.

The medical records and doctors' notes used for sections one and three possessed their own drawbacks, specifically an unexpected degree of subjectivity where explicit examination protocol was lacking, combined with the inconsistent use of archaic medical terms, the abominable handwriting of doctors and the frustrating restrictions on all medical records under one hundred-years-old, which regrettably

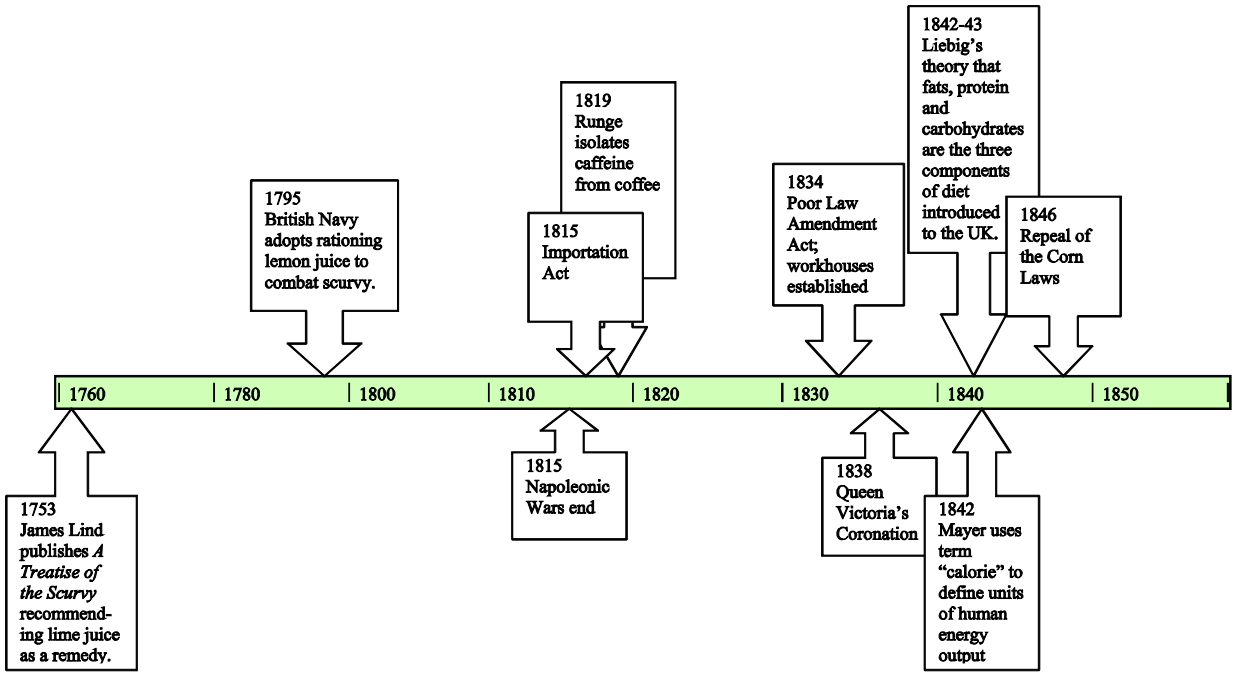
[44] Nancy A. Gutierrez, *'Shall She Famish Then?' Female Food Refusal in Early Modern England* (Aldershot, England: Ashgate Publishing, 2003), 2-3.
[45] Nancy A. Gutierrez, *'Shall She Famish Then?' Female Food Refusal in Early Modern England*, 2.

prevented the examination of Welsh medical records at a time when details on hydrocephalus finally started being included in annual reports of Swansea Hospital and the Ministry of Health.

Ultimately, this dissertation will attempt to fill in the gaps in the literature on gender and nutrition in the nineteenth century. It will address the shortfalls and take up some of the challenges of previous work regarding the unequal distribution of food within working-class families. My approach offers an alternative to the anthropometric, demographic and medical history literature on the relationship between women's diet and health which has often attributed purely economic explanations for women's unequal consumption, such as women's lack of economic opportunities and increased financial dependence on male family members, caused by the industrial revolution, for the poor nutritional status of women. What follows considers this topic from the perspective of social and gender history by fusing disparate literatures, taking up the challenge of feminist historians and Anthony Wohl - to study the nutrition of women during the long nineteenth century and to count the costs on their own terms.

Figure 1

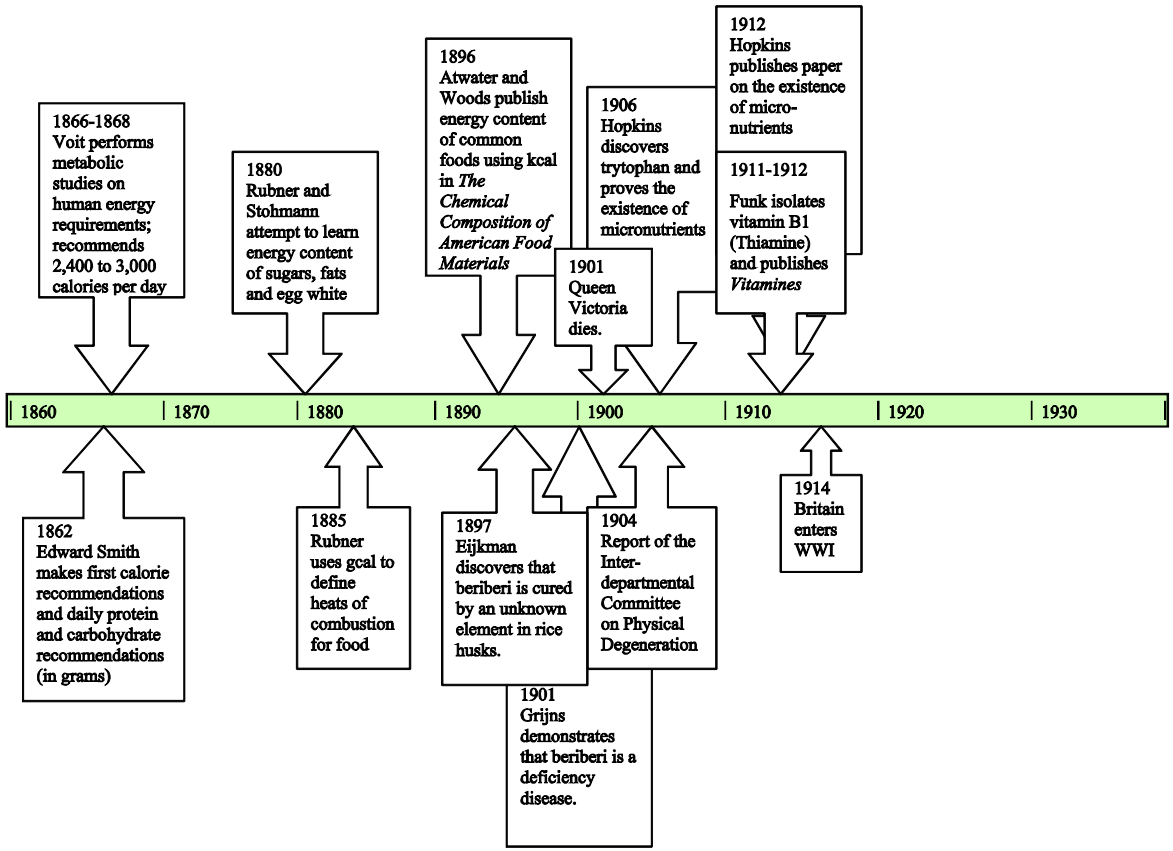
Nutrition timeline 1760-1860



Sources: Melinda Corey and George Ochea (eds), *The Encyclopedia of the Victorian World* (New York: Henry Holt, 1996), 108-109, 315, 358 and 469; Walter Gratzer, *Terrors of the Table: A Curious History of Nutrition* (Oxford: OUP, 2005), 22; Karl Y. Guggenheim, *Nutrition and Nutritional Diseases: The Evolution of Concepts* (Lexington, Massachusetts: D.C. Heath, 1981), 65; Dorothy Hollingsworth, "Developments Leading to Present-Day Nutritional Knowledge," in D. J. Oddy and D. S. Miller (eds), *The Making of the Modern British Diet* (London: Croom Helm, 1976), 189-190; *Merriam-Webster's Biographical Dictionary* (Springfield, MA: Merriam Webster, 1995), 118.

Figure 2

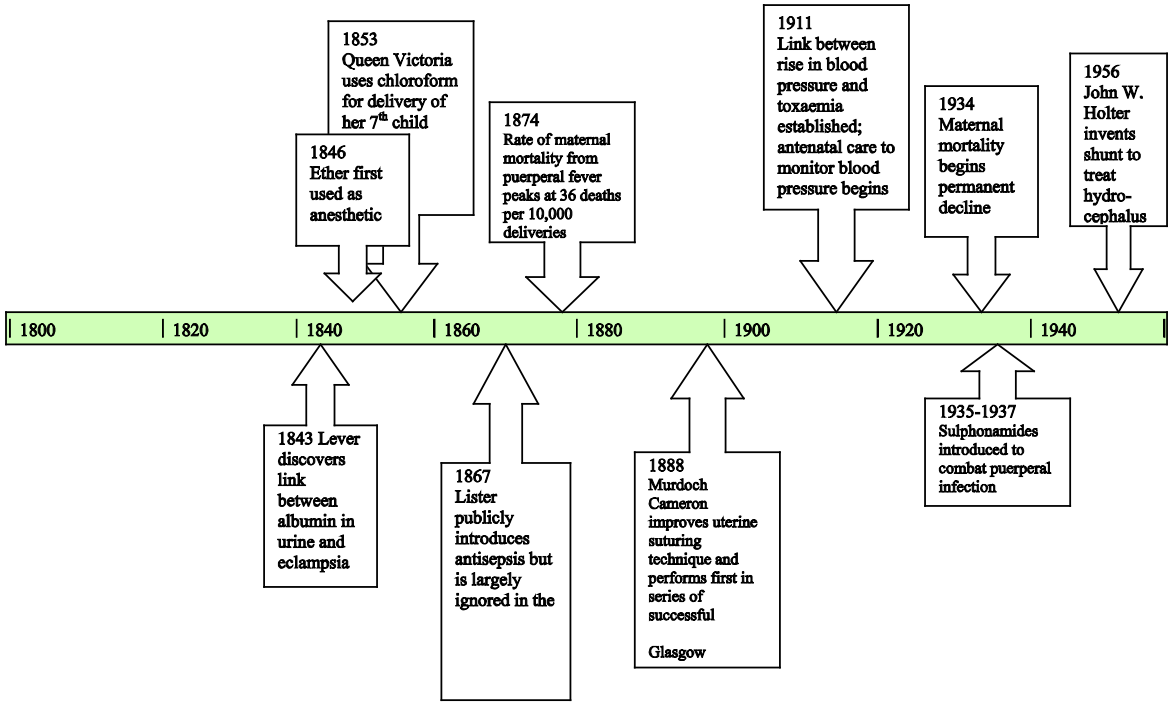
Nutrition timeline 1860-1940



Sources: Melinda Corey and George Ochea (eds), *The Encyclopedia of the Victorian World* (New York: Henry Holt, 1996), 471; C. C. Gillispie (ed.), *Dictionary of Scientific Biography*, v (New York: Scribner's Sons, 1972), 541; Guggenheim, *Nutrition and Nutritional Diseases: The Evolution of Concepts*, 71-77 and 151-152; James Hargrove, "History of the Calorie in Nutrition," *The Journal of Nutrition*, 136 (Dec 2006), 2959; H. G. C. Mathew and Brian Harrison (eds), *Oxford Dictionary of National Biography*, xxviii (Oxford: OUP, 2004), 53; *Merriam-Webster's Biographical Dictionary* (Springfield, MA: Merriam Webster, 1995), 330.

Figure 3

Developments in obstetrics and childbirth in the UK 1800-1950



Source: Craig Basse, "He was a Mechanic, Gifted at Saving Lives," *St. Petersburg Times On-line* (Dec 27 2003) <www.sptimes.com/2003/12/27/Tampabay/He_was_a_mechanic__gi.shtml >, accessed 12 November 2004; Irvine Loudon, *Death in Childbirth: An International Study of Maternal Care and Maternal Mortality, 1800-1950* (Oxford: Clarendon Press, 1992), 19, 24, 49, 87, 136-137, 204, 259, and 344-45.

Part I:

Nutritional Discoveries and the Development of the Nineteenth-Century Antenatal Diet

Chapter 2

Introduction to Part I: A Brief History of Nutrition

Before delving into the history of antenatal nutrition in the United Kingdom, it is vitally important to present the larger framework of the history of nutrition in order to place the arguments concerning maternal nutrition, government policy and the medical community in their proper context. I must emphasise that this introduction is purely background information: a review of secondary sources meant to contextualize the research of the following chapters.[46] Although it is somewhat unorthodox to begin a dissertation by surveying the work of others, it will help to gain a clearer understanding of the nutritional knowledge and traditions that British working-class women possessed so that one may better comprehend the motivations behind their dietary choices and the dietary suggestions of medical personnel. It is important to remember that nineteenth-century women had none of the nutritional information that is available to late twentieth and early twenty-first century women. Even guidelines for the average or ideal weights of women and children were not available to parents until the first decade of the twentieth century.[47] Nutrition largely emerged as a science in the nineteenth century, with public policy and guidelines being continually revised (or not, as was sometimes the case and which will be explored in the upcoming chapter) as great strides were made in laboratories and universities throughout the world.

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[46] For this survey, I have relied on several exceptional sources: Drummond and Wilbraham's *The Englishman's Food*, a highly regarded seminal work on British dietary culture written just before WWII; Guggenheim's acclaimed and exhaustive history of nutritional discoveries, *Nutrition and Nutritional Diseases*, praised at the time of publication by Iris J. Turkenkopf who wrote, "Reading Karl Guggenheim's work, one is struck by the enormous amount of research that went into the preparation of this book," *Bioscience*, 33/2 (Feb 1983), 132; and the most recent, Walter Gratzer's *Terrors of the Table*, commended for the accuracy of its scientific content as well as its value as a history text: a "useful addition to every nutritionist's shelf," writes David Kritchevsky in his review, *JAMA*, 296/4 (2006), 451.

[47] Joan Jacobs Brumberg, *Fasting Girls; the history of Anorexia Nervosa* (New York: Random House, 1988), 231-233.

Galen, fruit and scurvy

The concept of a balanced diet has altered significantly in the last two hundred years. The necessity of fruit and vegetable consumption to provide specific vitamins, minerals, and antioxidants was only slowly realized over the course of the late nineteenth century and the first quarter of the twentieth. While there were campaigns on behalf of the middle class and the government to make the working classes eat rice and barley and to drink milk, similar to present-day promotions of '5 a day', fruits and vegetables were not viewed by the government or the medical community as essential.

The low consumption of fruits and vegetables in England in the nineteenth century had its roots in a long history of cultural food traditions, influenced primarily by the humoral doctrine of medicine, based on the teachings of Hippocrates and, later, Galen of Pergamum, which took hold in England during the Middle Ages, and persisted for centuries. Galen's medical philosophy, based on balancing the body's temperature and moistness by manipulating the 'humours' (blood, phlegm, black and yellow bile), was very nutrition-orientated. Its guiding principles were laid out in the *Regimen Sanitatis*, a text compiled and brought to England around 1100.[48] It was consulted by physicians well into the seventeenth century, and, according to biophysicist and historian, Walter Gratzer, "was regarded with almost religious reverence."[49] According to this philosophy, illness was the result of an insufficient or excessive amount of one or more humours. The ideal 'balance' was maintained

[48] J. C. Drummond and Anne Wilbraham, *The Englishman's Food: five centuries of English diet* (London: John Cape, 1939; repr. 1994), 67.
[49] Walter Gratzer, *Terrors of the Table: the curious history of nutrition* (Oxford: OUP, 2005), 39.

through the removal of excess blood, phlegm or bile (through bloodletting or the application of leeches) or through diet. Like Traditional Chinese Medicine, which attributes values of temperature and moistness to foods which are classified as *yin* or *yang*, foods according to the humoral doctrine were related to one of the four elements, and were hot and moist (which would encourage blood), hot and dry (for yellow bile), cold and moist (for phlegm) or cold and dry (for black bile.)[50] The humoral composition of foodstuffs could be altered by the method of cooking, and it was believed that food could heal specific diseases by redressing the balance between the humours inside the body.[51] The guidelines that Galen established for food influenced cultural beliefs about food and nutrition for centuries after the medical philosophy was abandoned.[52]

Each food was classified according to this system, and it was strongly believed that while food could redress an imbalance and cure most complaints, some illnesses were the direct result of over-indulging in a particular food and causing a surplus of a particular humour.[53] According to Galen, milk, considered cold and moist, was only suitable for infants, who were also cold and moist, and the very old, but because of its ability to corrupt the eyes and mind in adults, especially unsuitable for students.[54] "Grosse" (red – although not all red) meats were not allowed until a young man was fifteen, along with salads of leafy vegetables, both being considered "cold," to temper the hot humours of adolescence.[55] Based on the Galenic system, food historian Ken Albala writes that Renaissance physicians believed that "Vegetables may have been

[50] Ken Albala, *Eating Right in the Renaissance* (Berkeley: University of California Press, 2002), 49.
[51] C. M. Woolgar, "Group diets in Late Medieval England," in Woolgar, Serjeanston, and Waldron (eds), *Food in Medieval England: diet and nutrition* (Oxford: OUP, 2006), 198.
[52] Drummond and Wilbraham, *The Englishman's* Food, 65-69.
[53] This theory of excess reverberated through British medical culture for centuries and may have been one of several factors in delaying the conceptual leap to understanding deficiency diseases; **see pages ??? below for a further discussion of this theory.**
[54] Albala, *Eating Right in the Renaissance*, 75-76.
[55] Gratzer, *Terrors of the Table*, 40 and Drummond and Wilbraham, 66.

nutritious before the [Biblical] flood, but the deluge altered their qualities permanently, leaving them cold, watery, and full of superfluities that scarcely meet the needs of the contemporary human frame."[56] Drummond and Wilbraham claim that fruit is the best example of the persisting beliefs about foods based on Galenic teachings. According to Galen, fruits were cold and moist and therefore caused fevers and diarrhoea. In 1661, Samuel Pepys recorded fearing that he brought on a friend's illness by feeding him fruit. Prescriptive literature from the eighteenth and nineteenth centuries warns against fruit for children and nursing mothers because of its purgative properties. According to anthropologist Sidney Mintz, reluctance to consume fruit persisted into the first half of the nineteenth century: "Because of the old fear of fruit that typified commoner attitudes, the manufacturers and merchants of jellies, jams, and marmalades had to overcome some resistance and distrust."[57] By the late nineteenth century, fruit was no longer viewed by medical experts and institutional nutritionists as unhealthy, but it certainly was not considered 'healthy'. It was considered a sweet, and therefore a luxury and injurious in excess.[58]

However, fruit juice and its anti-scorbutic properties greatly contributed to the lengthy overthrow of Galenic-based beliefs and the journey toward the discovery of micronutrients. Naval doctors played an extraordinary role in the development of the science of nutrition, especially in the understanding of deficiency diseases. Following 16th and early 17th century reports of scourges of scurvy being cured by fruit or sauerkraut from Spanish and Dutch captains and naval doctors, John Woodall, a

[56] Albala, 70.
[57] Sidney W. Mintz, *Sweetness and Power: the place of sugar in modern history* (Harmondsworth, Middlesex: Penguin, 1985), 126.
[58] Drummond and Wilbraham, 68-69 and 121-123; Pepys as quoted in *The Englishman's Food*, 125; fruit as a purgative, see Pye Henry Chavasse, *Advice to a Wife on the Management of Her Own Health and on the Treatment of some Complaints Incidental to Pregnancy, Labour and Suckling* (13th edn, London: J. and A. Churchill, 1889), 268-270; fruit in the nineteenth century, Drumond and Wilbraham, 335-336, 341 and 379; also Gratzer, 38-39.

ship's surgeon who worked for the East India Company published *The Chirurgeon's Mate* in 1617. Scurvy had been believed to be caused by an excess of black bile, and in his book, Woodall questions why scurvy, classified as a "cold" disease, should be cured by "cold" fruit juice.[59] Although Woodall did not call the whole humoral system into question, he was willing to contradict Galen who, according to Gratzer, "was regarded as infallible, and any departure from his teaching as heresy."[60] While no one could agree on why fruit and vegetables should alleviate the symptoms of scurvy, captains and ship's surgeons began making provision for citrus juice and vinegar (although vinegar often proved ineffective for reasons they were not yet able to understand) on long voyages. Woodall's book began a century-long struggle between naval doctors, who witnessed the effects of the disease and its cures, and naval boards and their medical advisors, who were reluctant to accept that such a simple cure could be effective when medical knowledge of the time insisted that fruit juice should exacerbate the illness. Throughout the latter half of the 18th century, English ship's surgeon, James Lind, conducted dietary experiments on the sailors suffering from scurvy aboard his ship and observed hundreds of scurvy patients at Haslar Hospital, where he was a physician from 1758 to 1783.[61] Despite excellent results from the use of citrus juice, which Lind published in his *Treatise on the Scurvy* in 1753, the Royal Navy formally insisted that scurvy was caused by an excess of salt, or meat, or damp air, and discouraged the use of citrus juice, claiming it caused fevers.[62] Based on his experience and an exhaustive survey of the existing literature on scurvy, Lind believed the disease was caused by the combination of a lack of fresh

[59] Gratzer, 17-18.
[60] Gratzer, 41.
[61] Ralph Stockman, *James Lind and Scurvy…Reprinted from the Edinburgh Medical Journal, June 1926* (Edinburgh: Oliver and Boyd, 1926), 332-334.
[62] Gratzer 17-20.

fruit and vegetables and prolonged exposure to "moist-sea air."[63] In his Treatise, Lind himself suggested that vegetables cured scurvy by redressing an excess, writing that sailors get scurvy due to "the want of fresh vegetables and greens; either, as may be supposed, to counteract the bad effects of their before mentioned situation [exposure to sea air]; or rather, and more truly, to correct the quality of such hard and dry food as they are obliged to make use of."[64] Even when Scottish doctor Gilbert Blane finally convinced the Royal Navy to provide rations of lemon juice to sailors in 1795, the consensus was that the citrus juice must cure an illness caused by excess, rather than provide an element of diet that had been lacking.[65]

Discoveries in digestion

While the naval community was coming to grips with realities that contradicted traditional dietary beliefs during the 17th and 18th centuries, scientists all over Europe were making discoveries about circulation and digestion which undermined theories originally based on the Galenic/humoral system and began to prompt exploration into the nature of food and how it was assimilated. Scientists of physiology began making conjectures that digestion was more than the internal "cooking" of food to turn it back into its elemental properties to produce humours, as Galen and Renaissance doctors had believed.[66] Andreas Vesalius of Brussels published a new theory of digestion in his work *De Humanis Corpore Fabrica* in 1543 in which he suggested that the body is a machine, with food being ground and pulverized for fuel, not merely to top up humours. Scientists influenced by this theory became known as "mechanists." During the first quarter of the 18th century, Herman Boerhaave, a renowned professor of

[63] James Lind, "A Treatise of the Scurvy," *Lind's Treatise on Scurvy*, (ed.) C. P. Stewart and D. Guthrie (Edinburgh: University of Edinburgh, 1953), 91.
[64] Lind, *Lind's Treatise on Scurvy*, 90-91.
[65] Gratzer, 28-30.
[66] Albala, 57.

medicine at Leiden, first conjectured that organs suffered from wear and that food, reduced into miniscule particles, somehow repaired and replenished them. In 1766, mechanist Albrecht von Haller, published his belief that different foods had different roles (e.g. he believed that fat in food created body fat) and that water lost through bodily fluids needed to be replaced.[67] However, from 1620 an opposing view of digestion as fermentation, and later, as a dissolving of food into usable parts, was promoted by scientists who viewed digestion as a chemical process, first proposed in the works of Flemish chemist J. B. van Helmot published posthumously in 1648.[68] Despite the progress made by biochemists in the realm of chemical digestion, ideas and images of the digestive system as a crushing machine lingered well into the nineteenth century.

At the start of the 18th century, around the same time Boerhaave was publishing his theories of mechanical digestion, French scientist Réamur used experiments on birds to theorize that digestion was indeed a chemical process, and that stomach acid dissolved, not fermented, food into liquid. Because some of his experiments failed, it took Italian professor Larrazzo Spallanzani until the latter half of the 18th century to prove that digestion was chemical. Spallanzani convinced his contemporary, Dr. John Hunter, an anatomist who had previously adhered to the concept of mechanical digestion, of the chemical digestion process. Hunter then went on to discover ulcers, and their creation by the effect of stomach acid on the stomach lining.[69] Spallanzani's and Hunter's discoveries set the stage for renowned French chemist Antoine Lavoisier to make massive strides in nutritional science.

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[67] Gratzer, 52-55.
[68] Karl Y. Guggenheim, *Nutrition and Nutritional Diseases: the evolution of concepts* (Lexington, MA: D.C. Heath, 1981), 31-37.
[69] Gratzer, 69-70.

"Nitrogenous" and "non-nitrogenous" foods and the path to vitamins

Among other achievements, Lavoisier invented the term "oxygen," in 1779.[70] He identified gasses, helped establish the metric system, and was responsible to the French government for the manufacture of gunpowder.[71] In 1790, his interest in combustion led him to conduct experiments in respiration and metabolism as he grasped that both breathing and eating were required for blood manufacture and energy creation.[72] He was able to establish a basal metabolic rate based on oxygen intake, and formed a highly detailed model of digestion, in which he hypothesized the digestive properties of enzymes in the saliva, pancreas and intestines.[73] When Lavoisier was executed during the Terror, his contemporaries continued studying links between nutrition and respiration. Lavoisier had proposed that nitrogen was not involved in the respiratory process, and his colleague Antoine-Francois Fourcroy discovered that protein contained nitrogen, whereas carbohydrates and fat did not. Throughout the duration of the nineteenth century, proteins were sometimes referred to as "nitrogenous" foods.

After Lavoisier, nutrition increasingly became a science of chemistry, and the chemical composition of food began to attract investigation. At the end of the Napoleonic Wars, a physiologist named Francois Magendie chaired the Gelatine Commission, a body formed by the French government to explore the nutritional value of gelatine to combat the widespread food shortages facing France. Magendie quickly discovered that gelatine, a cheap and abundant by-product of meat processing, was not the answer to France's hunger problem. When eaten with fats and

[70] Guggenheim, 52.
[71] Gratzer, 56.
[72] Dorothy F. Hollingsworth, "Developments leading to present-day nutritional Knowledge," in D. J. Oddy and D. S. Miller (eds), *The Making of the Modern British Diet,* (London: Croom Helm, 1976), 189.
[73] Gratzer, 56-61.

carbohydrates, it could not sustain life in animals, but when other proteins were substituted, the animals survived. Magendie's experiments showed that not all proteins were created equal.[74] He was also the first to recognize, in 1816, that foods containing nitrogen were fundamentally different nutritionally from foods that did not contain nitrogen. In 1834, English chemist and physician W. Prout expanded on Magendie's findings and divided nutrients into three groups: those containing nitrogen (albuminous) foods, and those devoid of nitrogen (saccharinous and oleaginous).[75]

At the start of the nineteenth century, new discoveries regarding the composition of protein, and the findings of Lavoisier and his colleagues greatly encouraged chemists to view digestion as a chemical process and to pursue further study in that area. Regardless, Gratzer writes, "the mechanical model of bodily processes, and especially digestion, which, Réaumur and Spallanzani notwithstanding, still exerted an unaccountable influence on some physiologists."[76] This changed, however, as Justus Von Liebig, a German scientist born in 1803, made massive strides in the chemistry of nutrition. In 1843, Liebig became the first chemist to suggest that the energy of animals, along with their body heat, might be derived from the chemical energy of their food.[77] Liebig's coined the term "proteins" for albuminous (nitrogen-containing) foods, and his experiments, along with those of his contemporaries inspired by their disputes with Liebig, resulted in the classification of foods that Gratzer refers to as the "dietetic trinity": fats, protein and carbohydrates.[78] Liebig and his contemporaries, in particular, scientists Mulder, Dumas and Bossingault, believed (erroneously) that all food was either "plastic" ("nitrogenous") and repaired muscles

[74] Ibid., 73-4.
[75] Guggenheim, 134.
[76] Gratzer, 75.
[77] Guggenheim, 63.
[78] Guggenheim, 134; Gratzer, 168.

and powered the body, or "respiratory" ("non-nitrogenous") and maintained the process of respiration and generated body heat. From 1840, Liebig's theories gained much popularity in the UK after being heavily promoted by one of his English students, Lyon Playfair.[79] Unfortunately, Liebig established the strong belief that a diet consisting of nitrogenous protein and non-nitrogenous fats and carbohydrates offered complete nutrition, considerably delaying the discovery and the acceptance of the existence of vitamins.

Mulder, one of Liebig's contemporaries, established that all protein consisted of carbon, hydrogen, nitrogen, and oxygen and acknowledged the presence of the "mineral salts" (minerals) sulphur and phosphorous, but believed they were impurities, rather than necessary for life. Magendie's experiments on gelatine were forgotten and Mulder believed that since all proteins were composed of the same elements, they all possessed the same nutritional value. Also, English doctor, Edward Smith, was the first to challenge Liebig's theory that protein provided energy while fats and carbohydrates maintained body heat, although few paid attention to his findings. German chemist Moritz Traube and later the Swiss team of Fick and Wislicenus both performed experiments (in 1861 and 1866 respectively) which suggested that Liebig's beliefs were not correct, and that non-nitrogenous foods (fat and carbohydrates) provided energy as did protein. Carl Voit's dog experiments culminating in 1868 confirmed that Liebig was wrong about muscle energy coming solely from protein.[80] The discovery that carbohydrates and fats, as well as protein, can create energy, along with Mulder's findings, and scientists Dumas and Bossingault's discovery that body fat can be created with carbohydrates, had an unfortunate impact on working-class diet in the second half of the nineteenth century.

[79] Hollingsworth, "Developments leading to present-day nutritional knowledge," 189-190.
[80] Guggenheim, 73-77.

Although Liebig's theories of protein and energy had been disproved, many strongly believed in his theory of the "dietetic trinity," that the only components of complete nutrition were fats, carbohydrates and proteins. General belief in the "dietetic trinity," combined with the discoveries listed above, convinced medical boards, hospitals, prison trustees, politicians, Poor Law guardians and the like that a working-class diet was sufficient as long as there was some protein, of any kind, present and that bread, being a carbohydrate, could substitute for fat and was nutritionally equal to other carbohydrates. Hence, as long as members of the working class received what were believed to be sufficient bread, potatoes, or other starchy staples, and a minute amount of protein, their diet was considered sufficient. Sugar was also promoted as nutritious because of its high calorie content and was considered an especially suitable "fuel" for children. This information was taught to medical personnel.[81] In the absence of an understanding of the unique vitamin and mineral contents of different proteins, fats and carbohydrates, such beliefs prompted disastrous decisions about nutrition, and contributed to the malnourishment of the working poor.

Although the effectiveness of citrus juice to combat scurvy was well known throughout the nineteenth century, as was the effectiveness of cod liver oil on rickets,[82] "the notion," Gratzer writes, "that they contained a constituent essential for health, rather than some form of antidote, lay beyond the reach of men's imagination. The intellectual contortion required to arrive at such a conclusion was achieved only at the very close of the century."[83] As early as 1871, Liebig's associate, and later, adversary, Jean-Baptiste Dumas, published the results of various animal experiments and concluded that it was impossible to sustain life on fats, carbohydrates and proteins alone, and that other essential nutritional elements must exist. His work was largely

[81] See Rachel Barnes's nursing notes, see 44 below.
[82] Wohl, *Endangered Lives*, 57.
[83] Gratzer, 136.

ignored. Nearly 100 years after Magendie's experiments on proteins, Frederick Gowland Hopkins, an English biochemist discovered the amino acid, tryptophan, in 1900. He realized that these amino acids were essential for life, and that they were not present in all proteins; the reason why gelatine could not support life.

Following his discovery of tryptophan, Hopkins's rightly insisted that trace elements of nutrition existed. His work on protein, along with his work with Christiaan Eijkman on beriberi, Joseph Goldberger's successful curing of pellagra epidemics in the southern United States and Cicely Williams's work on kwashiorkor all proved the existence of deficiency diseases. General acceptance of the concept deficiency diseases was delayed until Funk's discovery of niacin in 1912, and his subsequent published paper, *Vitamines*, which attracted widespread interest within the scientific community in the theory that micronutrients existed. However, not everyone was convinced, and Hopkins continued to face resistance to the concepts of micronutrients and deficiency diseases. While delivering a conference paper over twenty years after his discovery of tryptophan, Hopkins still found it necessary to insist to his audience that vitamins were not merely theoretical: evidence of the medical community's continued stubbornness to believe in trace elements.[84]

After the medical community reached a point of consensus about the existence of vitamins and their necessity to human health, the isolation of each vitamin group and its role, and the differentiation of each vitamin within a group and its precise chemical makeup, proceeded with regular experiments and the logical processes of scientific method throughout the twentieth century.

Calories and energy requirements

[84] See Gratzer, "Paradigm Postponed: the tardy arrival of vitamins," in *Terrors of the Table*, 135-161.

Apart from diet composition, a second dimension of nineteenth-century diet was hotly debated. The question as to how much a man (and specifically a working-class man) needed to consume in order to maintain physical efficiency was debated on hospital and prison boards, and in Parliament during the investigation into Physical Degeneration in 1904. It is necessary to clarify Derek Oddy's findings concerning calorie-intake by placing them in both a modern and nineteenth-century context. According to Oddy's research, data from the 1890s revealed that working-class men were receiving 3,320 calories (kcals) while women consumed an average of 1,870.[85] These figures indicate that the average diet of the working-class male was roughly sufficient calorie-wise in its contemporary context. Current nutritional guidelines suggest that men aged between 19-50 years receive 2,500 calories per day while women consume 2,000, and these guidelines are offered as amounts necessary to maintain body weight based on current estimates of physical activity.[86] Men's greater calorie requirements have traditionally been calculated based on a larger ratio of muscle to fat in their bodies which creates a higher metabolic rate than that of the average woman. The physical labour of nineteenth-century working-class men was generally much more strenuous than that of twenty-first century working men. In *The Early Victorians: 1832-1851*, J. F. C. Harrison reminds his readers that "beyond the ranks of artisans and [factory] operatives was an army of manual labourers, men whose bodily toil supplied the motive power for innumerable operations which today

[85] Oddy, "Working-Class Diets in Late Nineteenth-century Britain," 320. It must be said that while Oddy claims that the study from which he estimated these calorie-intakes was very sensitive to intra-family food distribution, the sample size was remarkably small: 21 men and 6 women. Therefore, Oddy's averages can only be considered to be very rough estimates of the amounts men and women were consuming.

[86] These recommendations are standard in the US, but vary in the UK, with the Department of Health suggesting 2,550 calories per day for men and 1,940 for women and the British Nutrition Foundation listing approximately 1,650 as the average amount of calories consumed by women in the UK and 2,300 for men. However this average is likely taking the elderly population into account, whose energy requirements are less than women of childbearing age. British Nutrition Foundation website, http://www.nutrtion.org.uk/home.asp?siteId=43&subsectionId=315&parentsection=299&which=1 ; accessed 28 May 2007.

are done by machines."[87] One example of extraordinary toil that Harrison offers is "coalbacking," a task performed by dock workers which involved hauling 238-pound loads of coal on their backs, up ladders out of ships' holds, and across planks to the wharf, unloading somewhere between 30-40 tons per day. Harrison writes:

> We are so accustomed to hearing about the great changes wrought by power-driven machines in certain industries that is easy to forget how little mechanisation there was in great areas of early Victorian life. A vast amount of wheeling, dragging, hoisting, carrying, lifting, digging, tunnelling, draining, trenching, hedging, embanking, blasting, breaking, scouring, sawing, felling, reaping, mowing, picking, sifting, and threshing was done by sheer muscular effort day in, day out.[88]

Such descriptions of labour make Oddy's 3,320-calorie estimate for men seem understandable and even possibly insufficient. However, bearing in mind that women did a great deal of carrying, lifting, digging, dragging, scouring, etc. themselves during this period, the 1,870-calorie average seems painfully inadequate.

Discoveries in metabolism and organic chemistry were dependent on scientific progress in the areas of the nature of heat and the laws of energy.[89] Much of the early work on metabolism, heat, energy output and consumption was conducted in laboratories where the focus was on the processes of respiration and digestion and the chemical composition of food. The term "calorie" to describe a unit of heat (although not a standardized one) was already established in physics and engineering and was used as early as 1819 by Nicholas Clément to describe heat in engines.[90] French chemist Favre is usually credited with being the first to apply the term to heat created in chemical processes in 1853. But ship's surgeon J. R. Mayer first defined the "calorie" (what is now known as the *kilocalorie*) as the mechanical unit of heat

[87] J. F. C. Harrison, *The Early Victorians: 1832-1851* (St. Albans, Hertfordshire: Granada, 1971), 59.
[88] Harrison, *The Early Victorians*, 68 and 59.
[89] Guggenheim, 55-56.
[90] James L. Hargrove, "History of the Calorie in Nutrition," *The Journal of Nutrition*, 136 (Dec 2006), 2957-2961.

required to raise 1 kilogram of water by one degree Centigrade in 1842 and to relate this term to human energy output.[91] However, as Mayer was considered an amateur, and not a proper experimental chemist his work remained unnoticed or ignored.

One year later, J. P. Joule independently defined a mechanical unit of heat (the *joule*) and the public dispute between Mayer and Joule over who deserved credit for defining the mechanical equivalent of heat garnered attention to their work. In 1866, English chemist E. Frankland became the first to theoretically apply the mechanical equivalent of heat to the energy of foodstuffs (though he chose the *joule* to define it), although the energy content of different foods, as derived from combustion, was not yet known.[92]

Calorie requirements and their social implications were first addressed by English physiologist and social investigator Edward Smith, whose work signifies the beginning of public awareness of nutritional requirements. Interested in prison reform, Smith conducted experiments with convicts to measure metabolism and muscular exercise starting in 1855, and demonstrated that muscles derived energy from non-nitrogenous food. He conjectured that men required 2,830 calories to perform daily work, and was sincerely concerned that the abilities of the working poor and the unemployed to achieve this minimum. In 1863, following his dietary surveys, he made the first scientific recommendations to the Privy Council in terms of grams of carbon and nitrogen, again because the energy value of foodstuffs in terms of calories were still unknown. He elaborated on his recommendations in his publication *Practical Dietary for Families, Schools and Labouring Classes* in 1864.[93] Recognizing that it was not enough if the poor had sufficient calories if they could not

[91] Guggenheim, 322 and 65.
[92] Hargrove, "History of the Calorie in Nutrition," 2957-2961; Guggenheim 76-77.
[93] Edward Smith, *Practical Dietary for Families, Schools and the Labouring Classes* (London: Walton and Maberly**,** 1864), 224-233.

eat adequate amounts of protein, he suggested in that men eat 2,800 calories and 81g of protein per day and 2,650 calories and 77g of protein daily for women.[94]

Calorie requirements were first tabulated by German scientist Carl Voit, who, along with his collaborator Max Pettenkofer, developed various experiments to determine human metabolic rates and to translate them into nutritional needs. In 1866, Voit wrote that an adult male engaged in physical work required 3,000 calories, while a sedentary man required 2,400. Judging by the amount of nitrogen produced and fat and protein processed by his volunteers, Voit believed the average man required his calories to come from a diet of 110g of protein, 56g of fat and 500g of carbohydrates, a standard on which many government-sponsored nutritional suggestions remain based. Further studies of nutritional requirements and then, finally, of the calorie content of various foods were performed throughout the 1890s by Professor Wilbur Olin Atwater in the United States.[95] Further observations on calorie requirements were recorded by Scottish Dr. Dunlop who studied prison populations. Dunlop estimated that a man engaged in *moderate* work, which he described as eight hours-worth of stone-breaking a day, required 3,700 calories per day. Dunlop's findings were the basis for Rowntree's dietary recommendations in *Poverty: A Study of Town Life*, where he suggests a standard of 3,000, 3,500 or 4,500 calories daily for men performing light, moderate or severe work, respectively, and 80% of those figures for women in corresponding categories, which is the same proportion used in today's standard of 2,500 calories for men and 2,000 for women.[96]

However, using Rowntree's estimates we see exactly how problematic the results of Oddy's findings were. First, the 1,870 calories women were receiving is below the current requirement of 2,000 calories to maintain weight. For the twenty-

[94] Guggenheim, 71-73 and 151-152.
[95] Gratzer, 109-111.
[96] Seebohm Rowntree, *Poverty: a study of town life* (4th edn, London: Macmillan, 1902), 94-99, 228.

first century, comparatively inactive, female, a diet of 1,800 is often suggested as a target for slimming. 1,870 calories daily is far below Rowntree's suggestion of 2,800 calories for the average working-class woman, and still well below the 2,400 suggested for a woman engaged in light work. Rowntree acknowledges that most women were involved in "much hard work, in washing and scrubbing…and the hours during which they are working (*i.e.* using up physical energy in one way or another) are very long."[97]

Furthermore, women require an additional 200-300 calories during pregnancy to support the growing foetus, as well as to encourage an increase in breast and reproductive tissue and blood volume. Interestingly, the British Nutrition Foundation which recommends an additional 200 kcals only during the final trimester of pregnancy "assumes that, during pregnancy, activity levels fall and women will become more sedentary, but this is not always the case."[98] Not only did women tend to eat *less* during pregnancy to anticipate the financial outlay of a new infant (discussed in section two), but they often remarked with resentment that their workload increased during pregnancy while taking on additional paid labour (again, to save for the coming child, and often physically demanding labour such as washing and cleaning) or to prepare their home for their period of convalescence following delivery.

In addition, it is currently recommended that lactating women consume an extra 500 kcals per day to support milk production.[99] During the nineteenth century, working-class women often used breastfeeding as a method of birth control to prolong

[97] Rowntree, *Poverty*, 97-98.
[98] British Nutrition Foundation [website] <http://www.nutrtion.org.uk/home.asp?siteId=43&subsectionId=315&parentsection=299&which=1> accessed 28 May 2007.
[99] California Department of Health [website] <http://www.dhs.ca.gov/babycal/documents/NutriTipsEngdoc.pdf > accessed 30 May 2007.

the suspension of ovulation, quickly becoming pregnant again after weaning. The constant cycle of lactation and pregnancy would lead to elevated energy requirements throughout the duration of their reproductive years

Based on this information, it is apparent that while a man engaged in moderate labour would suffer from an average 180 calorie deficit according to the difference between Oddy's estimate of 3,320 and Rowntree's suggested 3,500 kcal per day, women suffered a daily deficit of 930 kcals, while pregnant women would have received between 1,130 and 1,230 less than their calories needs and breastfeeding women would have suffered a 1,430 calorie deficit. Arguments have been made by John Burnett, Marvin Harris and others that the physical labour undertaken by nineteenth century men would have required a greater calorie intake than that of other family members, but we see that this is not so when their wives were breastfeeding. Also, women carrying such a disproportionate share of the family calorie-deficit meant they were probably losing weight and suffering from muscle-wasting. A certain proportion of calories consumed during pregnancy must be from protein so that uterine tissue and foetal muscle can be created. As will be discussed in chapter 2, the fact that women's calories came mostly from carbohydrates, while their husbands consumed the majority of protein at meals likely contributed to the exhaustion and ill-health that many women described during pregnancy, as well as the low birth-weight and weakness of their babies.

According to Rowntree, on May 25, 1901, the Local Government Board recognized the need for sufficient calories for both men and women and required that workhouses supply uniform rations incorporating at least two boiled or roast meat dinners weekly and varying weekly in order to meet calories and nutrition requirements similar to those expressed by Rowntree. As will be discussed in the

following chapter, prisons also recognized the need for protein and for additional food for lactating mothers.

Scientific discovery certainly informed medical practice and political policy, but both medical practice and political policy were also heavily influenced by economic and social philosophy (e.g. by Malthusian theory regarding the inevitability of starvation as a natural check to population, which significantly shaped the 1834 Poor Laws, the British governments response to the Irish Famine, and later the Eugenics Movement).[100] For a clear and complete understanding of nineteenth-century maternal diet, it is necessary to recognize that the history of nutrition is only one element of a complex web of factors which affected the availability of food and information to nineteenth-century working-class women. Also, issues of food preference and food preparation heavily influenced maternal diet. These issues will be addressed in the upcoming chapter.

[100] Eric B. Ross, *The Malthus Factor: population, poverty and politics in capitalist development* (London: Zed Books, 1998), 27-28 and 46-47.

Chapter 3

Maternity, Meals and the Medical Community

The diet of Victorian and Edwardian women has been largely ignored, both by nineteenth-century British governments and by historians. In the 1930s, women's nutrition, especially mothers' nutrition, finally appeared on the agendas of Parliament and the British medical community. The appearance of state-sponsored antenatal care, including concern about antenatal diet, has impelled historians to ask why it took the British government and the medical community until the second quarter of the twentieth century to address the problems arising out of poor antenatal conditions. The historians who have dealt with this question have blamed class tension and the economic philosophies of the Victorian Government, as well as the gender biases and the self-promoting nature of the medical community for what they believe to be a delay in response. However, this chapter will examine the Victorian ideas of food, nutrition and health which influenced the role of diet in pregnancy during the nineteenth century, and will examine Victorian medical documents to determine how antenatal diet was regarded by the medical community. Ultimately, the aim of this chapter is to show that class biases on the part of the government and the nineteenth-century medical community did influence the manner in which both eventually addressed antenatal diet, but that general beliefs regarding diet in nineteenth-century England and the preoccupation of the obstetric community with maternal mortality played a greater role in the way in which concern for antenatal nutrition developed.

At the start of the twentieth century, Britain found itself facing several uncomfortable demographic realities. Infant mortality rates had remained high throughout the 1890s despite a general decline in mortality rates which had been

falling since the 1870s. In addition, fertility had been dropping steadily, and though the maternal death rate had been decreasing since its peak in 1874, it plateaued embarrassingly between 1908 and 1912 and then actually began to increase again steadily until 1930.[101] Both infant and maternal mortality rates seemed little affected by sanitary legislation, and women, the government believed, were selfishly and stubbornly refusing to bear more children to offset this disaster. Not only did the British government fear for the quantity of up-and-coming British citizens, it feared for their quality as well. The Boer War had confronted England with the fact that the young men of the working class were less developed physically than their middle- and upper-class counterparts when roughly thirty per cent of men wanting to enlist in the British Army failed to meet the basic height requirements and physical standards necessary for recruits.[102]

So concerned was Parliament by this disturbing discovery that they appointed the Inter-departmental Committee on Physical Deterioration in September of 1903.[103] A yearly Report on Infant and Child Mortality was requested in 1912 and a National Conference on Infant Mortality followed. Since 1911 private and state "schools for mothers" had been set up throughout the country, run by nurses who educated mothers in infant care, but both infant and maternal mortality rates refused to drop despite these measures. Finally, during the 1930s, studies on nutrition, infant and maternal, began to emerge that stressed the connection between diet and health in women and children. These studies are significant for two reasons. They indicate that although the medical community had been aware that poverty and infant mortality

[101] Robert Woods, *The Demography of Victorian England and Wales* (Cambridge: CUP, 2000), 5, 279 and 308; Irvine Loudon, *The Tragedy of Childbed Fever* (Oxford: OUP, 2000), 152-155.
[102] Roderick Floud, Kenneth Wachter and Annabel Gregory, *Height, Health and History: nutritional status and the United Kingdom, 1750-1980* (Cambridge: CUP, 1990), 62, 115 and 306-307.
[103] Bernard Harris, *The Health of the Schoolchild: a history of the school medical service in England and Wales* (Buckingham: Open Univ. Press, 1995), 18.

were linked since 1910 when chief medical officer of the Local Government Board, Arthur Newsholme, presented reports illustrating the disproportionately high infant mortality rates among the poor, the government seems to have failed to make the connection between health and hunger. When the government finally did discover the extent to which diet and sanitation were related to health, their solution to the problem of infant mortality was to focus on the sanitary habits and cooking skills of working-class mothers. Medical officers of health and Local Government Boards did this by focusing their attention on educating mothers in the arts of breastfeeding, domestic cleanliness and personal hygiene.[104]

Jane Lewis's *The Politics of Motherhood* focuses on why the British government and the medical community chose to make the goal of their campaign against infant mortality the eradication of "maternal ignorance." The Infant Welfare Movement, as this period of government response to the infant health crisis was later called, failed in that many of the recommendations made to mothers on infant care required a standard of living that most working-class families could not afford.[105] Lewis describes this failure in detail and proceeds to give the reasons for the lack of government attention to issues such as increased wages and better housing which could have made a significant difference in infant health. Lewis writes:

> Evidence that family poverty had a detrimental effect on health and well-being appeared in many of the social surveys and nutrition reports of the 1930s, but it was impossible to make direct provision for women and children without admitting that the wages of male breadwinners, especially those drawing unemployment benefit, were insufficient. And this was something no government dared to do."[106]

[104] Jane Lewis, *The Politics of Motherhood: child and maternal welfare in England, 1900-1939* (London: Croom Helm, 1980), 68-69.
[105] Jane Lewis, *The Politics of Motherhood*, 89-90.
[106] Jane Lewis, 17.

Admitting that labouring and industrial wages were insufficient for the rearing of the family was against everything that the bourgeoisie of the long nineteenth century had been raised to believe about progress and industry. For a government that had created a century of legislation based on *laissez-faire* economics, to aid families where the head of the household diligently worked full-time and was still unable to support his family would be to concede that the laziness of the working-class was not the cause of their poverty, and that it was underlying structural economic problems and the failure of the government to protect workers which had caused such financial suffering. The belief that government intervention in the economy to raise the working-class standard of living would actually harm the country and be detrimental to the workers was held by many, including Helen Bosanquet who wrote in 1896:

> Another lesson which is now accepted by all who have studied the question is that relief should never be given in the aid of wages. It was thought at the beginning of the century that when wages fell below a certain point the right remedy was to make them up to a given standard out of the rates; and this was largely done all over the country. Some people went so far as to say that a working man could never hope to earn enough to maintain himself and his family, and that therefore all earnings must be subsidised. The result of this policy was that wages tended to fall very rapidly towards the point at which relief would be given, and that the rates increased so enormously as to threaten many parts of the country with ruin; the standard wage-earner was lowered instead of being raised, at the cost of immense hardship to the rate-payers. It was found necessary to reverse the policy, and since then wages have steadily increased; the standard being raised naturally instead of artificially, and perhaps no one would now venture to say that a working man can never earn enough to maintain himself and his family.[107]

Besides having to battle this ingrained belief that the poor were responsible for their poverty, proposed legislation that provided direct aid to mothers was criticised by those who believed such government paternalism would give working-class men an excuse to abandon their duties as breadwinner, husband and father. Not only did many

[107] Helen Bosanquet, *Rich and Poor* (London: Macmillan, 1896), 33-34.

believe that wage supplementation would encourage the poor to work less, the pervading orthodoxy of political economy considered intervention in the labour market to be meddlesome and dangerous.

Jane Lewis's belief that working-class families were denied aid because of the class prejudices of the ruling elite and the bureaucratic complications of providing better housing and nutrition extends to her reasoning as to why antenatal care was not considered a solution to high infant mortality until the 1930s. She is of the opinion that the government ignored the demands of women for better healthcare and a higher standard of living because Parliament and local government believed working-class methods of childrearing to have emerged from ignorance rather than necessity, and that government sponsored motherhood education would reduce infant mortality.[108]

Ann Oakley, author of *The Captured Womb: The History of the Medical Care of Pregnant Women,* has different views on why antenatal care remained unprovided by the medical community for so long, and why its focus at the start of the twentieth century did not seem to be on mothers' health and nutrition. Oakley considers medicine's main motivation for involvement in pregnancy in the nineteenth century to have been control over an increasingly profitable area of health care and a self-serving desire to expand the medicalisation of the childbirth process, not necessarily a direct concern for women's health.[109] Regarding the medical community, Lewis interprets the lack of focus on nutrition and antenatal care to be a result of Darwinistic beliefs which caused doctors to feel it more beneficial to save the lives of post neo-natal infants than neo-natal infants (those who would most benefit from antenatal care) who might perpetuate hereditary disease. Both feminist historians seem to believe that little

[108] Jane Lewis, 61.
[109] Ann Oakley, *The Captured Womb: the history of the medical care of pregnant women* (Oxford: Basil Blackwell, 1984), 2-11.

attention was paid to the role of nutrition in pregnancy until the third decade of the twentieth century, and that its implications in infant health were then ignored by doctors for the same reasons they were ignored by policy makers: it was more convenient to focus blame and reform on mothers' ignorance rather than make provisions for meals, better wages and better housing.

Although these interpretations all carry some validity, they fail to explain the evidence which emerges from maternity hospital records, publications in the *Lancet* and the *British Medical Journal,* and advice manuals to pregnant women, which indicate that mothers' diet was a concern of nineteenth-century doctors. These sources suggest that this concern about maternal nutrition emerges from an established conceptual framework of diet which had its roots in class and national attitudes, traditional and emerging medical thought, and folk belief. The sources also show that, like other factors in pregnancy currently viewed as important determinants of infant and maternal health (such as alcohol consumption or maternal weight), diet was primarily considered by the nineteenth-century obstetric community as one of many factors which might indicate the cause of, or play a role in, the onset of puerperal fever. As I will illustrate later in this chapter, it was, ironically, the concern for women's health during and after delivery which ultimately caused the benefits of antenatal care to be overlooked.

Food often plays the role of a drug in descriptions of childbirth and in the records of nineteenth-century midwives and doctors – administered to have an effect on a woman's body not through its nutritional value but for a medicinal purpose. One reason for this may have been that a solid understanding of the nutritional value of food, especially of the existence and role of vitamins, was absent until the 1920s. In 1899, the *Lancet* published a review of "A Report on Prison Dietaries in Scotland"

given by Dr. J. Crawford Dunlop. Dunlop criticized the system of regulating diet based on length of prison term and suggested that "using the standard of moderate work as that applicable to the ordinary prisoner it is shown that the energy value of the food of a man under such conditions should amount to at least 3100 calories . . ."[110] He wrote that more food was necessary for "men of extra size and for nursing mothers" and suggests that women prisoners receive 2480 calories per day.[111] Although late nineteenth-century doctors writing about prison and workhouse diets emphasized that more work meant more food was necessary to sustain health, there seems to have been little understanding of the need for food and calories simply to fuel the body after illness or the physical exertion of delivering a child. Nineteenth-century beliefs on the role of food during infirmity insisted that rich foods and great quantities would "overload the stomach" and that a diet high in carbohydrates, but low in fats and vegetables was the best regime for a recovering patient. The Victorian preoccupation with this theory of the "spare" or "low" diet, which seems to have emerged from nineteenth-century beliefs on digestion and middle-class ideals regarding indulgence and high-living as being the greatest cause of ill health, is one explanation for the way in which doctors dealt with antenatal and neonatal nutrition.

In *Love and Toil: Motherhood in Outcast London, 1870 –1918,* Ellen Ross claims "medical and non-medical attendants alike wrapped the new mother's abdomen with a "binder" of cloth bands and served her special sickroom foods, 'water, gruel and toast,'" in order to prevent uterine prolapse.[112] Because the newly developed field of obstetric medicine could not explain what caused labour

[110] J. Crawford Dunlop, "Report on Prison Dietaries in Scotland," *The Lancet* (October 21, 1899), 1117. According to Dunlop, the system of regulating a prisoner's diet according to his sentence had "been in vogue" since 1855. Often, those with short-term sentences were underfed as the amount of food supplied to each prisoner was directly proportional to the length of his sentence.
[111] Dunlop, 1117.
[112] Ellen Ross, *Love and Toil: motherhood in outcast London, 1870-1918* (Oxford: OUP, 1993), 113.

complications and injuries sustained as a result of these complications, the proposed solutions for preventing and curing such problems as uterine prolapse, haemorrhaging, and tearing were a mixture of folk remedies and, essentially, experimental medicine. That recovery from labour was viewed as a period of illness, indeed danger, and that illness was automatically associated with a diet easily digestible, yet low in protein and vitamins, greatly determined the role played by food in the treatment of pregnancy and delivery.

The "low diet" was universally recommended to sufferers of almost any malady during the nineteenth century, and its definition was as vague as its suggestion was ubiquitous. A series of letters to the editor of the *Lancet* during the summer of 1902 shows the degree to which doctors themselves were unsure of what constituted a "spare diet" and illustrates the confusion which could result from the haphazard manner in which medical advice was disseminated. Via these letters to the Lancet, Doctors Campbell, Dutton, Pritchard and Forbes engaged in a three-month-long debate over whether a "spare diet" meant a "generous, good, full diet" without unnecessary treats, or basic nutrition "suitably prepared," or a bare minimum of consumption.[113] In July, Dr. Forbes defended his recommendation of a full diet for the elderly and responded to his critics:

> If Dr. Dutton believes that 'spare diet' means a diet of good nutrient quality though limited in amount, then he does not read English 'as she is writ.' Of course, we may now be told that that was what was meant by 'spare diet.' Nine medical men out of 10 in general practice interpret 'spare diet' to be 'cup food,' 'slops,' 'little or nothing during the day,' 'a cup of arrowroot,' a little 'beef tea,' and a small piece of toast...[114]

Clearly, while doctors were uncomfortable with accusations of prescribing insufficient food, they responded most fiercely when being charged with allowing

[113] *The Lancet* (12 July 1902), 109; (12 July 1902), 110; (26 July 1902), 243.
[114] F. W. Forbes, *The Lancet* (12 July 1902), 110.

their patients to indulge. Regardless, the 'spare diet' described by Forbes seems to be an acknowledged convention, and restrictive diets high in carbohydrates, low in proteins, and void of "delicacies" were described as ideal for pregnant women during the nineteenth century and new mothers were offered little more than gruel and water days after labour.

What the prescription of the low diet seems to represent is fear of excess, and this fear permeated suggestions on diet to pregnant and new mothers (who were usually trying to nurse in the first few weeks after giving birth), as well as general habits and beliefs concerning diet and eating. Although the middle-class Victorian admonition of indulgence has become something of a stereotype, the language of excess seems to pervade the discourse surrounding diet during the nineteenth century. Nineteenth-century doctors, and Victorian society in general, appear much more concerned with excess than insufficiency when it came to diet, which offers one explanation as to why the deficient diets of working-class mothers remained overlooked until the early twentieth century. In all fairness to the nineteenth-century medical community, the English aristocracy had, in the previous century, earned an international reputation for its unhealthy lifestyle, especially for its excessive consumption of meat. The nineteenth-century concern with excess regarding diet was largely a reaction to "the gross over-indulgence of the eighteenth-century Englishman."[115] According to early twentieth-century food historians Drummond and Wilbraham, "the rich at all times, the poor when they could, were intemperate in meat and drink to an extent which made the English notorious all over Europe."[116]

However, this concern with excess dominated nineteenth-century medical discourse surrounding diet to the detriment of the poor. When Dr. Robert Hutchison

[115] Drummond and Wilbraham, 299.
[116] Drummond and Wilbraham, 299.

addressed the health problems arising from the diet of the poor in a speech to the West Kent Medico-Chirurgical Society in 1903 he describes the dangers in terms of excess:

> Fats are, as a rule, expensive; carbohydrates are cheap and hence the poor man will tend to take a large proportion of his energy from the latter. Amongst the poorer classes, indeed, this tendency is responsible for a certain amount of disease, particularly in children and by throwing a strain on the carbohydrate assimilating functions it tends to bring out any inherited tendency to disease. Physiologically, as far as the cells are concerned, it seems to be a matter of indifference whether fats or carbohydrates predominate, but ease of digestion seems to be promoted by avoiding a preponderance of either.[117]

Although Dr. Hutchison is correct in warning against an excess of carbohydrates and its relationship to certain illnesses,[118] he does not mention any disease resulting from a *lack* of fats or protein. In Dr. Hutchison's view, the diseases of the poor in relation to diet are still a matter of excess and a "preponderance" of one type of food over another, rather than a matter of deficiency.

As the existence of vitamins was not proven until 1912,[119] one can see how the value of a balanced diet was still not generally understood by nineteenth-century doctors and how the Victorian concern with excess had affected the objectivity of the medical community and its understanding of nutrition. Gratzer writes that "the first decade of the twentieth century saw the 'dietetic trinity' finally buried."[120] While this may have been true of the scientific community, my research has uncovered evidence that academic institutions lagged behind scientific discovery, and were training medical professionals according to outdated and potentially damaging nutritional beliefs. In 1915, the Royal Sanitary Institute was still teaching its students that all

[117] Robert Hutchison, "An Address on Dietetics delivered at the Opening of a Discussion at the West Kent Medico-Chirurgical Society on April 5 1903," *The Lancet* (4 July 1903).
[118] Diabetes would be one example of a condition exacerbated by excessive carbohydrate intake. Recent studies have also suggested that high cereal consumption may interfere with Vitamin D metabolism and contribute to rickets, see 244 below.
[119] See Casimir Funk, *The Vitamines*, (2nd edn, trans. Harry E. Dubin, Baltimore: Williams and Wilkins, 1922), on the discovery of vitamins.
[120] Gratzer, 168.

food could be divided into two categories: "nitrogenous" – proteins – and "non-nitrogenous" foods, which consisted of fats and carbohydrates. This information reflects the persistent belief in Liebig's 'trinity of nutrition' of protein, fats, and carbohydrates, despite the fact that in 1843, Claude Bernard had disproved Liebig's theory of protein assimilation and that various scientists had been challenging the "trinity" theory since the 1850s. The necessity of minerals and existence of vitamins had also been seriously conjectured and explored even before Funk published *The Vitamines* three years earlier.[121] Nevertheless, in 1915, Nurse Rachel Barnes, who was training to be a health visitor, was taught that minerals were "essential to life," but information on vitamins was absent from her lecture notes. She also wrote down "fats of carbohydrates are to a great extent interchangeable."[122] While it is impossible to know if this comment was an error and Barnes meant "fats *and* carbohydrates are to a great extent interchangeable" (which is likely), either statement shows little understanding or acceptance of vitamins and such teaching sustained the attitude that, as long as the calories were sufficient, a diet consisting solely of stodgy carbohydrates was nutritionally equivalent to one composed entirely of fruits and vegetables, and that fats were nutritionally equivalent to carbohydrates. As a health visitor, the instruction Barnes received had the potential to directly impact the diets of working-class families.

One can see beliefs regarding the interchangeability of carbohydrates, fats and proteins put into effect most visibly in the meals provided in institutions. Drummond and Wilbraham write, "the most serious defect of school diets of this period [the nineteenth century] was the paucity of fruit and vegetables. The former was regarded as an unnecessary luxury and the latter, unless very cheap, might well be replaced by

[121] Gratzer, 95; see information on Dumas's 1871 publication, 156; for Funk and Hopkins, 169.
[122] The papers of Rachel Barnes, Royal Sanitary Institute examination papers, Records of the Health Visitors Association, Wellcome Library SA/ HVA G. 1/1.

bread," and they attribute the scurvy outbreaks at Christ's Hospital in 1816 to this dietary convention.[123] Combined with the popularity of the "low diet," and the belief illustrated by Hutchison that the only difference between a diet of mostly protein and one predominantly of carbohydrates was one of digestion, this explains why the diets suggested by doctors for pregnant women were terribly low in fruits and vegetables, and why no one saw the great harm in a poor mother substituting bread for vegetables and meat day after day.

Considering the medical origins of the "spare diet," high in starchy carbohydrates and lacking in fruit and vegetables, it is no surprise that doctors often suggested such a regime after the medicalisation of childbirth - the vague point between 1800 and 1900 at which, according to Ann Oakley, all pregnancy became defined as "potentially pathological" and the "professional body" of medicine "had successfully claimed the care of pregnant women as its expert territory."[124] Although Oakley's descriptions of how and when the medical community "seized" the care of pregnant women by forming an "alliance with the population-controlling interests of the state" seem poorly constructed (as well as fraught with twentieth-century biases regarding medical intervention in childbirth as an invasion, and questionable depictions of the time before unnecessary "routine medical supervision" as a women-friendly period for giving birth), the medicalisation of pregnancy did negatively impact working-class women's experience of childbirth in that it resulted in a class-bias in treating pregnant women and in the emerging concept of antenatal care.[125]

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[123] Drummond and Wilbraham, 405.
[124] Ann Oakley, *The Captured Womb*, 2-11.
[125] This belief in the change in the experience of childbirth from one of feminine support to masculine sterilization is by no means unique to Oakley. See John Hawkins Miller's "Temple and Sewer: Childbirth, Prudery and Victoria Regina," in Anthony Wohl (ed.), *The Victorian Family* (London: Croom Helm, 1978), 23-43, for a similar description of "pre-medicalized" childbirth. While childbirth as depicted by Oakley and Miller may have more closely resembled the labour experiences of middle-class Victorian women, many accounts of working-class childbirth show it as a period of isolation from

The "professional body" of medical practitioners was largely middle-class, and the concern of these doctors was primarily for the women of the middle class whom they treated most often. Their patients were women who could afford to pay doctors' fees and to purchase any food they happened to crave during pregnancy. In this context, advice on a "low-diet" makes much more sense as a concern of the medical community. In *In the Family Way: Childbearing in the British Aristocracy, 1760-1860*, Judith Schnied Lewis writes:

> The lowering system was the regimen most often employed in the prenatal care of aristocratic women. A major component of that system was a spare diet. On the whole, that diet was probably a good one. These women had been eating well all their lives and clearly had the nutritional stores to support multiple pregnancies. The bland qualities of the prescribed diet were valuable in preventing the bladder infections to which pregnant women were particularly susceptible. A lack of salt would limit the retention of fluids and help keep blood pressure down, both of which were (and are) common problems during the latter months of pregnancy. (And in the absence of any other hypertensive agents, bloodletting may have been beneficial in some cases.)…Though healthy women flourished under this regimen, one suspects that weaker women – those with specific reproductive problems as well as those debilitated by repeated short interval pregnancies – did not fare so well. The low diet was particularly unfortunate for these women, probably aggravating the problems.[126]

Poor women who did not have the nutritional stores of wealthier women would also have suffered from use of the spare diet. Not only would such a diet have weakened poor women, unhealthy women and women of high parity, but it would have hindered their ability to provide nutrients for their developing foetuses. Once they delivered their children, this low-protein, low-iron, low-vitamin diet, which was one element of an elaborate ritual to prevent puerperal fever, would have ironically left them more

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friends and especially family from the onset of nineteenth-century urbanisation, regardless of the gender or qualifications of the birth attendant.

[126] Judith Schneid Lewis, *In the Family Way: childbearing in the British aristocracy, 1760-1860* (New Brunswick, NJ: Rutgers Univ. Press, 1986) 147-8.

susceptible to infection.[127] In addition, the sparse postpartum diet of "gruel, eggs, milk and water" advocated by manuals for nursing mothers would have made breastfeeding challenging for women of all classes, but especially poor women with little stored body fat.[128] Unfortunately, those working-class women who would have had contact with doctors during their confinement would have been those in maternity hospitals: the poorest and the most likely to suffer from labour complications.

Unfortunately for pregnant working-class women, information was dispensed by most doctors with little regard for the unique medical needs of women of varying circumstances. While the amount of contact that doctors had with working-class patients before the end of the nineteenth century was minimal, there was a significant amount of information dispersed by informal and, later in the nineteenth century, registered health visitors, so much so that F. B. Smith actually attributes a significant portion of the dropping infant mortality rate between 1903 and 1908 to "health-visiting."[129] Like the advice offered by doctors, however, the information offered by health visitors was considered by both historians and Victorian and Edwardian working-class women themselves to have been high-handed and oblivious to the unique challenges of working-class mothers.[130] The majority of books written for the populace on the subject of childbearing and childrearing similarly catered to the wealthier classes and promulgated information that was potentially dangerous to working-class women, who desperately required vitamins, minerals and protein, and, as Lewis suggests, any woman suffering from ill-health or high parity.

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[127] See John Strauss and Duncan Thomas, "Health, Nutrition and Economic Development," *Journal of Economic Literature*, 36 (June 1998), 766-817, for further information on the interplay between malnutrition and infectious diseases.
[128] See Behrman, 70 below, for information on the risks of poor infant nutrition *in utero*; also see Jane Lewis, *The Politics of Motherhood*, for commentary on breastfeeding and the low diet, 70-71.
[129] F. B. Smith, *The People's Health, 1830-1910* (London, Croom Helm, 1979), 113.
[130] Lucinda McRay Beier, "*For Their Own Good: the transformation of English working-class health and culture, 1880-1970* (Columbus: Ohio State Univ. Press, 2008), 83-83.

Examples of this type of class-bias can be seen in Henry Chavasse's books, *Advice to a Wife on the Management of Herself* and the successive *Advice to a Mother*. While a variety of child-rearing manuals were available throughout the second half of the nineteenth century, prescriptive literature addressed to pregnant women was less common. Originally published in the 1850s, demand for *Advice to a Wife* was high and it underwent many revisions, the seventeenth edition being published in 1921. *Advice to a Wife* is mentioned with praise by a mother in the Women's Co-operative Guild's publication, *Maternity: Letters from Working-Women*[131] indicating that by 1915 this book was being read by women of the poorer classes. However, the advice offered by Chavasse demonstrates that this was not his intended audience when the book was first published. When describing the causes of infertility, Chavasse writes, "How often a lady, during the first year of her wifehood, is gadding out night after night, - one evening to a dinner party, the next night to private theatricals, the third to an evening party, the fourth to the theatre, the fifth to a ball."[132] Surely it is not the working-class wife he is addressing in this chastisement of newlywed behaviour.

Chavasse's focus on wealthy women and their problems during pregnancy is blatantly apparent throughout the book. Like Parliament at the start of the twentieth century, Chavasse's preoccupation with the British decline in fecundity determines the advice he offers, and his disregard for the working-class mother develops into downright insensitivity to the problems endured by poor women. He writes:

> While the poor, then, have usually an abundance of children, the rich have, as a rule, but few children. How very seldom we hear of a rich lady having three at birth? It is no very uncommon occurrence for a poor woman to have that number,

[131] "Against Large Families," *Maternity: letters from working women*, (ed.) Margaret Llewelyn Davies (London: G Bell and Sons, 1915; 2nd edn, London: Virago, 1978; repr. 1984), 64.
[132] Pye Henry Chavasse, *Advice to a Wife on the Management of Her Own Health and on the Treatment of some Complaints Incidental to Pregnancy, Labour and Suckling* (13th edn, London: J. and A. Churchill, 1889), 6.

> and even as many as five at birth.[133]

In a style reminiscent of Henry Mayhew, Chavasse describes the differences between the poor and the wealthy in biological terms. The poor mother is almost depicted as a sub-species of human, one who gives birth in litters while the wealthy mother is "cursed with barrenness".[134]

Although Chavasse's language indicates that he considers poor women's childbearing experience to be fundamentally different from that of wealthy women, he argues throughout the book that those differences, at least those which he considers to effect middle- and upper-class women negatively, stem from environmental causes. Like the barrenness caused by "gadding out night after night," Chavasse considers many aspects of a middle-class lifestyle to be responsible for the maladies of pregnancy. The difficulties he describes, of course, are not the weakness, the excessive fatigue, the miscarriages, and the hunger during pregnancy described by the letters in *Maternity*. Besides infertility, Chavasse writes of problems such as flatulence, indigestion, and swooning – all highly uncomfortable, legitimate complaints resulting from pregnancy, but rarely life-threatening, or injurious to mother and child. Chavasse attributes many of these ailments to diet, but, as his audience is financially secure, his concerns about diet are very different from those that Newsholme had at the start of the twentieth century:

> Rich and luxurious living, then, is very antagonistic to fecundity. This might be one reason why *poor* curates' wives and poor Irish women generally have such large families. It has been proved by experience that a diet, principally consisting of milk, butter-milk and vegetables, is more conducive to fecundity than a diet almost exclusively of meat. In illustration of my argument, the poor Irish, who have usually such enormous families, live almost exclusively on butter-milk and potatoes; they

[133] Chavasse, *Advice to a Wife*, 25.
[134] Chavasse, 23.

> scarcely eat meat from year's end to year's end.[135]

Although it is somewhat refreshing to hear the *diet* of the poor blamed for their large families rather than the usual criticism of their slovenly, irresponsible reproductive habits, Chavasse has reduced the suffering of the poorest of the poor to a blessing in disguise that should be emulated by those unfortunate enough to afford meat and wine. Chavasse's insensitivity – his complete ignorance of the problems endured by women who have too little to eat during pregnancy and his utter obliviousness to the plight of the poor – is best illustrated in his only warning against too sparse a diet:

> Some ladies declare that they are always cold, their feet especially, which are as cold as ice! The fact is, they not only do not take exercise enough, but they do not take nourishment enough – breakfast especially – to keep them warm. Many ladies really and truly half-starve themselves; they consider it to be vulgar to eat much, and to satisfy their appetite![136]

When addressing the health problems which arise from insufficient nutrition, Chavasse missed the obvious sector of society that suffered regularly from such complaints, and chose to focus on those who practised self-denial in the name of fashion and social pressures rather than family necessity. Chavasse's warning is perfectly valid; he is informing women that following social convention can be harmful and that it is natural and healthy to consume enough food to satisfy mother and child during pregnancy. However, this quotation illustrates that Chavasse's exclusive dealings with the middle class narrowed his view of society enough so that he saw the working class only in terms of the middle class, as a group to hold up in comparison to the primary audience, never as a population whose needs required addressing.

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[135] Ibid.,22.
[136] Chavasse, 16.

Chavasse makes many dietary suggestions to middle-class women, both during pregnancy and breastfeeding, and in this sense proves that diet was considered a determinant of maternal and infant health by the nineteenth-century medical profession. He advises women hoping to conceive to "live abstemiously on fresh milk, butter-milk, bread, potatoes and farinaceous diet, with very little meat, and no stimulants whatever;"[137] but he suggests that a pregnant woman, "however much she might dislike wine, she should be induced to take it, as wine will improve her circulation, will strengthen her digestion and will tend to open her bowels."[138]

Chavasse even instructs women on the significance of what they consume during suckling, realizing that certain properties of food or medication consumed by the mother can often be passed to the child via breast milk. However, the food he warns against illustrates the lack of medical knowledge in determining diet and the reliance on folk medicine and middle-class mores by doctors dealing in obstetrics. He informs his readers of "the absurdity of a nursing mother being allowed to eat anything, be it ever so gross, indigestible, or unwholesome. Again, a dose of purgative medicine given to her, or greens taken by her at dinner, will sometimes purge the babe as violently, or even more so, than it will the mother herself."[139] The diet Chavasse suggests for a nursing mother is actually quiet varied and balanced: "Let her take a variety of food, both animal and vegetable . . . let her ring the changes on boiled and stewed, on grilled and roast meats; on mutton and lamb and beef; on chicken and game and fish; on vegetables, potatoes and turnips; on broccoli and cauliflower."[140] It is what Chavasse forbids the nursing mother that is most interesting: "What I object to a nursing mother taking are: gross meats, such as goose, duck; highly salted beef;

[137] Ibid., 23.
[138] Ibid., 37.
[139] Chavasse, 268.
[140] Ibid., 269.

shell-fish, such as lobster and crab; rich dishes; *highly-seasoned soup*; pastry, unless it be plain; cabbages, and greens, and pickles..."[141] All of these suggestions are significant as they illustrate cultural and class beliefs about food that affected medical advice regarding diet and pregnancy.

Although the potatoes and milk Chavasse suggests for women having difficulty conceiving is actually quite a substantial meal, offering an abundance of calories and vitamins, the deficiency that would arise from living on a "farinaceous diet, with very little meat," and no alternative sources of protein would sap a woman's strength and the lack of iron in such a diet would promote anaemia. The suggestion of little meat, along with the advice against "rich foods," although partially founded in the lack of medical knowledge of vitamins and the preponderance of the "low diet," had much to do with the Victorian fear of excess, and especially the class associations with excess. Simply the fact that foods containing high amounts of fat and spices are referred to as "rich" dishes indicates that specific foods were associated with each class. Class associations with meat were present in working-class consciousness as well. Ellen Ross writes, "Mushy foods (oatmeal, gruels, possibly pease pudding) signified social dependence and degradation, whereas meat meant independence – a good safe distance from the workhouse."[142]

With his dietary guidelines, Chavasse sends a clear message that living an indulgently aristocratic lifestyle is not what a wealthy middle-class woman should do, and that such behaviour would influence her effectiveness in her basic role as woman by interfering with her ability to produce and nourish children. Essentially, Chavasse is telling women that being upwardly mobile and adopting the customs of the grossly decadent superior orders will hinder their ability to "mother."

[141] Ibid., 269-270
[142] Ross, 32.

While the prescriptive literature on pregnant and nursing women's diet illustrates the influence of social attitudes and traditional and emerging medical knowledge on the way pregnant women's diet was regarded by doctors, medical records indicate that doctors and nurses dealing directly with mothers, especially working-class or "respectable poor" mothers, had a much better understanding of an appropriate antenatal diet and gave greater attention to ensuring their patients were well-nourished.

Records from the maternity hospitals of London reveal that a good deal of attention was paid to what mothers consumed both in and out of the hospital, both during pregnancy and before conception. There is little doubt that they understood a sound diet was an element of good health, and that confinement required just as sufficient a diet as would normally be expected. A letter from the early records of the hospital may indicate that an understanding of the importance of diet in determining the health of pregnant women was had by doctors as early as 1800 and that this understanding may have been shared by the general population by 1820. A letter from W. Hagan, the baker of the General Lying-In Hospital of London, to the Governors of the hospital regarding their request for an increased discount on bread illustrates that both the medical world and the working-class community were aware that a woman's diet during pregnancy was important, if not for the baby's health then for the mother's, and that it deserved special consideration. In 1819, the baker writes:

> Gentlemen,
>
> I have had the satisfaction of supplying the hospital nearly twenty years with good and wholesome Bread and have also endeavoured to support the character of an Honest Tradesman. – The Baker that serv'd the Hospital before me had complaint made to him of his Bread, He then offer'd to serve at a reduced price, which the Gentlemen refused to listen to, <u>the Medical Gentleman in particular</u> saying "we must be supplied with the <u>Best</u> <u>Bread</u>." They then sent for me and paid me the compliment of saying they were sure I would send them Bread unadulterated . . . Whatever

> discount I may give the Hospital for ready money . . . is one thing, but selling the same article at different prices is another – I can make Bread at the prices propos'd but it would be neither nutritious nor wholesome, and pardon me Gentlemen if I say in my humble opinion not fit for poor women in the delicate state of Lying in!![143]

Although the baker may be merely appealing to the consciences of the Governors to keep a steady profit margin, his letter shows that over one hundred years before women's nutrition and infant mortality was a concern of the British government, it was a concern of doctors and hospital administrators – enough so that they terminated a contract and were willing to pay more, despite their dependency on donations, for a better product when Hagan took up the job in 1800. The mention of adulteration is significant as well, considering Fredrick Accum's *Treatise on Adulterations of Food and Culinary Poisons*, was not published until a year after this letter was written. Accum's book essentially revealed to the public the rampant use of adulterants by food manufacturers and retailers to increase profits by substituting ingredients of lesser quality or to make the appearance or qualities of the food more appealing. Often these adulterants were injurious to health, such as opium, sulphuric acid, verdigris for the colouring of pastries and confectionery, copper and lead for colouring pickles and nux vomica and cocculus indicus (narcotic-like poisons that attack the central nervous system) used in beer to decrease brewing time. With his *Treatise,* Accum alerted the British public to this crime on the health and pockets of the people, but despite this new public awareness, effective legislation for pure foods was not created until fifty years later.[144] Hagan's account of the "compliment" paid to him indicates that the Governors of the Lying-in Hospital were aware of the dangers of adulterated bread (usually whitened with powdered alum or mixed with potato

[143] W. Hagan, Baker, 1819, Records of the General Lying-in Hospital, LMA, H1/GLI/A35/1.
[144] Jim Phillips and Michael French, "Adulteration and Food Law; 1899-1939," *Twentieth Century British History,* 9/3 (1998), 350-369.

flour, sand, or plaster of Paris), and were unwilling to serve it to pregnant women in 1800 when they changed suppliers.

That the "medical gentlemen" knew of the extensive use of adulterants and the health dangers associated with ingesting them twenty years before Accum's book generated public awareness raises this question: if doctors knew that a poor or adulterated diet was detrimental to the health of pregnant women, why were they not advising working-class women on a proper diet? Clearly, even a baker considered the state of lying-in to be a "delicate" one necessitating a special diet consisting of food different from what the majority of the working class was known to consume. In response to this question, records from the General Lying-in Hospital show that doctors did consider antenatal diet, but mostly as a factor in health at the time of delivery. Their ideas of diet were created in the context of general nineteenth-century views on food and nutrition, and this greatly influenced the ways in which they considered and determined their patients' diet.

The general quality of maternity hospital food seems to have been a serious concern of the governors of maternity hospitals and the standards appear quite high compared to other nineteenth-century institutions. The highest paid staff member of the General Lying-in Hospital in the middle of the century was the cook, Ann Gale, who received £4 4s. each quarter, more than the resident midwife, the matron and the nurses. Although there was no discussion of the patients' dietary requirements in the records of Queen Charlotte's Hospital, there is a memo from November of 1885 concerning the re-negotiation of nurses and midwives' meat allowances – ultimately trying to determine whether 9 ounces of meat per day was ideal for each nurse, or if eight ounces would be sufficient:

> For 12 months from 1 November 1884 to 1 November 1885, an allowance of 9 ounces uncooked per head per day was found ample, for Sisters, Midwives and

> Nurses. During the last 3 months of the twelve, the average daily number sitting down to dinner was 28, and the joint provided was generally 14 lbs. before cooking. This is equal to eight ounces per head. On most days a small quantity was returned to the kitchen . . .[145]

Although this could be interpreted as merely an effort to cut corners in hospital spending, it shows that doctors and hospital governors were considering nutritional needs at a time when most studies of dietary requirements were mostly made in relation to the Poor Laws to determine workhouse diet, or as poverty studies intent on determining the bare minimum of calorific consumption for survival. Studies of school diets and prison diets did not become common until very late in the nineteenth century. That the administration of Queen Charlotte's hospital was trying to determine a comfortable dietary ration for its staff rather than the minimum subsistence level is encouraging. Maternity hospitals seem to be consistently involved in maintaining a high standard of quality in the food they prepared.

If the food provided by maternity hospitals reflects the attitudes of medical men towards diet and pregnancy, then it seems that doctors certainly did care that mothers received what was considered to be sufficient nutrition from the moment they passed through the doors of a maternity hospital, not a "low" or "spare" diet. Many women entered the hospital as labour commenced, but often, especially in the early part of the century, they were admitted up to two months before the child was due and so were fed meals prepared by the hospital during most of their third trimester. After delivery, the average stay was three weeks for recovery. From 1800 until 1803, the account books of the General Lying-in Hospitals contain the record of every item of food purchased by the hospital for consumption by both nurses and patients.[146] What

[145] "Miscellaneous Statistics and Memoranda," Queen Charlotte's Hospital records, LMA, H27/QC/F/05/001, 9.
[146] Account book of the General Lying-in Hospital London, January 1800 to April 1803, LMA, H01/GLI/D01/01.

strikes the reader immediately is the sheer variety of food purchased by the hospital. Although the largest percentage of the weekly budget is spent on the butcher's bill and the baker and brewer's bill (which is similar to many contemporary working-class budgets in which meat, bread and alcohol were by far the biggest family expenditure every week after rent), one-third of the budget went toward "extras" such as tea, vegetables, spices and sugar. Compared to the household budgets of the working class reproduced by Maud Pember Reeves almost one hundred years later, these accounts record a diet significantly more balanced and varied than those enjoyed by working-class mothers in their own homes for the duration of the century. Considering that staple foods were to have been less expensive after 1870[147] (making the diet illustrated by Reeves's budgets a supposed improvement on that had by workers earlier in the century), and John Burnett's claim that during the entire first half of the nineteenth century, the majority of British people were "a population on the verge of starvation," the diet that emerges from the cash books seems all the more impressive.[148]

From 1800 to 1803, not only were bread and potatoes staple carbohydrates of the hospital, but rice, oatmeal and barley were regularly purchased as well. According to the information collected by Burnett, working-class families usually used one type of carbohydrate for the main bulk of their diet, often determined by the region in which they lived (except rice, which, Burnett writes, was hardly ever listed in working-class household budgets and mostly appeared in recipe books on domestic economy written for the poor by middle-class authors.)[149] Besides meat (the greatest

[147] John Burnett, *Plenty and Want* (2nd edn, London: Scolar Press, 1979), 134-137.
[148] Burnett, *Plenty and Want*, 47.
[149] Ibid., 54. I agree with Burnett's claim that rice was a rarity in urban working class budgets and ever-present in cookbooks written to reform working-class diets, however I have found rice to have been a staple of diets in rural south Wales in the middle of the nineteenth century, most often used for

expenditure listed in the accounts is the weekly butcher's bill), fats and proteins in the form of milk, cheese, lard and "sweet oil" were regularly purchased, and eggs appear frequently in the accounts starting in June of 1801 and fish in October of 1801. This is surprising as (often less expensive) protein alternatives to meat, such as eggs and cheese were rarely used by the working class.

The most interesting aspect of these food accounts is the record of vegetables purchased by the hospital. As discussed earlier, nineteenth-century diets in general have been traditionally considered by historians as being notoriously deficient in fruits and vegetables, for a variety of medical and social reasons. Carrots, onions, and turnips were purchased weekly by the hospital. Weekly variations such as "greens," peas, cucumbers, celery, radishes, lettuce and cabbage appear throughout the three-year period and, oddly, without any seasonal pattern to explain their random appearance in the accounts. Fruit appears sporadically, such as gooseberries specifically allocated "for pudding" and apples "for sauce," reinforcing the theory put forth by Drummond and Wilbraham that Victorians considered fruit to be a sweet rather than a source of nutrition. Amazingly, not only were salt, pepper and mustard standard elements in the hospital diet, but allspice and ginger as well. Spices were still largely a luxury for members of the working class at the start of the nineteenth century and it is doubtful that such condiments regularly found their way to the mothers' tables before they entered confinement.

Unfortunately, amounts purchased are not listed in the accounts, merely what was paid each week for each item. However, the number of patients present in the hospital on each day of the week was recorded in the margin next to the list of food and sundries purchased, and the number never exceeds fifteen. Also, no definite

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pudding. See 281-283 below. Also see Laura Oren's "The Welfare of Women in Laboring Families: England 1860-1950" for other examples of middle-class efforts to change the eating habits of the poor.

statement concerning the distribution of food within the hospital can be made from these records as nurses and staff were being fed from these budgets, and it is possible that the diets of the mothers themselves varied according to their stage of confinement. However, the account book specifically records the purchase of “porter for matrons and nurses” each week. Porter is the only item listed in the accounts whose consumption is restricted to a specific population of the hospital, which may suggest that all other items were consumed equally by patients and staff, though it suggests nothing in terms of equality of portions.

By 1837, the account books of the General Lying-in Hospital no longer contained weekly-itemized lists of food purchased, but recorded quarterly food expenditure in the form of bills paid to individual suppliers. Regularly paid were the dairy, the butcher, the cheesemonger, the baker, and the brewer. Vegetables no longer appear in the accounts, but rather than suggesting that the hospital discontinued serving them, it most likely means they were purchased from a variety of suppliers so no quarterly invoice appeared to be recorded in the documents. Vegetables purchased had been listed individually, not in lump sums paid to suppliers, in the earlier records from 1800. The absence of vegetables from the accounts of 1837 suggests they were still being purchased spontaneously at market price from a variety of sources to obtain the best value. In 1851, greengrocers Dolamore and Garland start to appear regularly on the payroll and lump sums paid for vegetables are included in the accounts while Dolamore and Garland receive ever-increasing weekly payments. Probably for similar reasons of obtaining a better value at market price than through a contract, a fishmonger, King, appears in the quarter ending in September of 1851, then again in March of 1853. Suppliers change regularly in the account books. Often they are replaced by another supplier and then reappear in the accounts a year or more later,

indicating that the contracts were flexible, and that the hospital was both sensitive to price increases and consistently monitored quality.[150]

From a contemporary standpoint, the most surprising aspect of these records is likely to be the large percentage of the quarterly food budget spent on a wide assortment of alcohol. In addition to the brewer's bill, the hospital paid for wine from Lister, Beck and Co. and "spirits" – later specified as mostly brandy - from a supplier named Shaw about every other quarter, sometimes listed in the cashbooks in the section entitled "household necessities" rather than under "provisions". Often the amount spent on alcohol in a quarter exceeded the amount spent on every form of medicine purchased by the hospital during the same three months. Occasionally, the cost of wine and spirits was listed under medicines: "Four dozen pints of wine for patients, £4."[151] This may indicate that the majority of the alcohol consumed by the expecting and newly-delivered mothers in the hospital was administered as a drug rather than consumed as a beverage. When the account books start listing separate "beer accounts" for nurses and patients (the hospital eventually began paying nurses and midwives an allowance for beer as part of their salaries rather than supplying it for them), one sees a significant difference between the amount allocated to each group. The beer allowances specifically for patients were often less than one-fifteenth the amount allocated for nurses and staff. Considering that there was only a resident staff of ten listed in the book, which makes the number of staff and patients roughly equal, the gap between the expenditure for beer seems much wider, and supports the idea that patients were not imbibing regularly (or as regularly as nurses) at meals.

Indeed, porter and port wine do appear in the medical casebooks of nineteenth-century doctors, usually administered immediately after the child had been

[150] Account books for the General Lying-in Hospital of London, 1837-1854, LMA, H1/GLI/D23.
[151] Ibid., quarter ending 31 March, 1839.

delivered. In 1829, Caroline Clark, who suffered from eclampsia (seizures after delivery), "expressed a great desire for some porter" after her seizures subsided.[152] Margaret Seymour, who was suffering from typhoid fever during her confinement was given port wine as an emetic in addition to being "purged four times" after her child was born on 24 August, 1854. Unfortunately, these measures were ineffective and she died days after she gave birth.[153]

Alcohol was most likely administered to a woman after delivery to "open her bowels" as Chavasse had advised in *Advice to a Wife*, and its use illustrates a specific case in which diet was considered for its role in preventing maternal mortality. The belief that constipation was a possible cause of puerperal fever dated back to the eighteenth century. In 1773, Dr. Charles White wrote that "the keeping of the intestinal canal open is an article of great importance" as it would "prevent the intestine from being plugged up by accumulation of hardened faeces, whereby putrid flatulencies are generated."[154] In medical casebooks from the Queen Charlotte Maternity Hospital, the General Lying-in Hospital, and King's College Hospital, the use of both alcohol and "purges" for the purpose of curing or preventing constipation was widespread, and doctors seem to have interpreted bowel movements as a sure sign of recovery from convulsions or scepticeamia.[155]

Alcohol was not the only victual used as a post-labour restorative. The "low diet" seems to have been the treatment of choice for doctors dealing with post-labour patients. On January 30, 1828, Charlotte Reeve delivered a baby with "an impacted head." Dr. F.H. Oriel performed a craniotomy (decapitating the foetus in utero to make delivery possible), and writes, "it was several minutes before the body of the

[152] Notes of Dr. G. I. Snowden, General Lying-in Hospital Records, LMA, H01/GLI/Y10/1-26
[153] Notes of Doctors Henry F. Coley and E. Hooper May, General Lying-in Hospital Records, LMA, H1/GLI/Y10/19/3
[154] Charles White, 1773, as quoted by Ann Oakley, 16-18.
[155] Notes of Dr. G. I. Snowden, General Lying-in Hospital Records, LMA, H01/GLI/Y10/1-26

child was born, the patient complaining of faintness which a little warm gruel relieved . . ."[156] Seven days after the birth of her child, Dr. Snowden writes of Caroline Clark, "since the last report our patient has been gradually mending. She takes a little porter daily and some beef tea. Has an appetite for a meal, but the soreness of her tongue prevents her taking solid food [she had bitten it during labour because of convulsions]."[157] Dr. Charles Kingsley Ackland of King's College Hospital frequently recorded the state of his patients' appetites, but fed them little regardless. In 1883, he wrote that a Mrs. Lewis, who suffered from a lacerated perineum when her baby was born two days before, was by November fourth "Doing well. Wishes for solid food so allowed her a little boiled mutton. Pulse 84. Temp 98 2/5."[158] Even health visitors believed in starving a woman during, or immediately after, childbirth. In the "Sheffield Enquiry" published by the Women's Co-operative Guild, is the story of Mrs. Greenwood, head woman inspector, who had gone to help the "self-respecting" poor and learned of a woman in the neighbourhood who had gone into labour. Mrs. Greenwood "found her feverish, needing milk, with only a mother with sore eyes and no memory to look after her, "who was vaguely going 'is there a little gruel with milk for her'." Though Mrs. Greenwood did find a doctor to attend this woman, she lacked the ambition to find her something substantial to eat for the period following labour. "Mrs. G. wanted milk and soda for her – 'Nothing in house but had a little gruel and water on fire which she was going to thin with milk' Mrs. G. gave her 1d. for soda water and asked to get milk on credit."[159]

[156] Notes of Dr. F. H. Oriel, General Lying-in Hospital Records, LMA, H01/GLI/Y10/1-26.
[157] Notes of Dr. G. I. Snowden, General Lying-in Hospital Records, LMA, H01/GLI/Y10/1-26
[158] Notes of Dr. Charles Kingsley Ackland, King's College Hospital records, Wellcome Library, MS 6923.
[159] Ms. L. Davies and Mrs. Abbott, "Sheffield Enquiry," Women's Co-operative Guild, January 4 – 10 1902, Papers of the Women's Cooperative Guild, LSE, Coll. Misc. 268 vol. 6 MF70, 43-49.

The use of the "low-diet" on new mothers while pregnant women were receiving sufficient diets in maternity hospitals draws attention to the fact that post-delivery was a very dangerous period for a woman. Even when the labour passed without complication, the potential for illness lingered for days after delivery, and the risk of post-natal septicaemia remained high compared to other European countries until the 1930s.[160] The use of antiseptic to clean hands and instruments had reduced the maternal mortality rate in the 1880s, but only by reducing the numbers contracting an infection.[161] For those who developed puerperal fever, the chances of recovery without the help of antibiotics were slim. With no other way of helping women suffering from puerperal fever or convulsions, doctors resorted to the old standby of the low diet.

In his book, *Death in Childbirth: An International Study of Maternal Care and Maternal Mortality 1800-1950,* largely regarded as the seminal work on maternal mortality, Irvine Loudon writes of the frustration which plagued the developing field of obstetric medicine in its search for a cause and effective treatment of puerperal fever and puerperal convulsions. He writes that even after the development of antisepsis which brought about a decline in the European maternal death rate between 1880 and 1910 by reducing the number of cases of puerperal fever, doctors continued the frantic search for an "anti-streptococcal serum" which would cure those who contracted the disease despite antiseptic measures until the development of

[160] Following a decline from a peak of 33 in 1893, the rate of maternal mortality due to puerperal fever began to rise again after 1912. The rate fluctuated between 13 to 20 deaths per 10,000 births in England and Wales during the period from 1912 and 1930. Loudon, *The Tragedy of Childbed Fever*, 152-55.
[161] This is the generally-accepted explanation for the decline of maternal mortality between 1874 and the first decade of the twentieth century. However, Loudon does make an interesting case in his later work, *The Tragedy of Childbed Fever*, against this theory, speculating that the decline had nothing to do with Listerian antisepsis and everything to do with a decline in the virulence of strains of streptococcus after 1874 and to the appearance of new, more virulent strains after 1912, 152-55.

sulphonamides and then antibiotics.[162] In 1912, most doctors in the U.S. and Europe were still trying to cure puerperal fever by "cleaning out the uterus" either by douching or manually with "a curette or a finger," a remedy which often exacerbated the condition and sometimes proved fatal for the mother.[163]

Nineteenth-century doctors were frustrated by the ineffectiveness of their treatment, and gaining an understanding of maternal illness was just as frustrating: there seemed to be no pattern to the symptoms and occurrences of maternal mortality. Their confusion was largely the result of believing one disease responsible for maternal mortality. In reality, puerperal fever and puerperal convulsions are not related to each other, but are two entirely different afflictions with unrelated causes and symptoms. The terms puerperal sepsis, puerperal septicaemia and puerperal fever were used interchangeably during the nineteenth century to describe both septicaemia, or blood poisoning, and infection of the abdominal cavity, also known as peritonitis, resulting from a massive bacterial infection of the uterus following childbirth.[164] The convulsions suffered by mothers before and immediately following delivery were referred to as puerperal convulsions or eclampsia and killed by causing cerebral haemorrhage and kidney or liver damage. Nineteenth-century doctors appear to have believed the convulsions were a symptom of infection, when in fact, they were a symptom of the condition currently known as toxaemia.[165] Toxaemia is defined as a "hypertensive disease of pregnancy." It is characterized by high blood pressure,

[162] Irvine Loudon, "Some International Features of Maternal Mortality," in Fildes, Marks and Marland (eds), *Women and Children First: international maternal and infant welfare 1870-1945* (London: Routledge, 1992), 6.
[163] Irvine Loudon, *Death in Childbirth: an international study of maternal care and maternal mortality 1800-1950* (Oxford: Clarendon Press, 1992), 84.
[164] Loudon, *The Tragedy of Childbed Fever*, 8-10. According to Loudon, calling both types of maternal infection "puerperal septicaemia" only added to the confusion as the symptoms are quite different and often maternal mortality cases went underreported as doctors intentionally failed to report cases of peritonitis. Also, the term "puerperal sepsis" extended to post-abortion infections as well, skewing statistics for maternal mortality throughout the nineteenth century.
[165] Loudon, *Death in Childbirth*, 84-85.

headaches, swelling, and seizures, and can be detected by an excessive amount of albumin in the urine, or a sudden rise in blood pressure in the early stages of pregnancy. The condition usually ends hours after delivery. Although it is treatable with extensive monitoring of the mother and foetus, toxaemia remains incurable and unpreventable and its causes are still unknown. Since the 1950s, injections of magnesium sulphate, an anti-convulsant, have been used to treat eclamptic seizures and, after 2001, as a preventative treatment for pre-eclamptic women.[166] But from 1911 until 2001, severe toxaemia had been treated primarily by inducing labour or performing a caesarean, and before the discovery of sulphonamide in controlling infection, both methods led to higher levels of infant or maternal death respectively. In 1843, Dr. J. Lever discovered the link between albuminuria (the presence of albumin in urine) and eclampsia and in 1911, the discovery of the link between a rise in blood pressure and eclamptic seizures became the main motivation for developing antenatal care.[167] About the development of antenatal care in the twentieth century, Loudon writes:

> Toxaemia, then, was a very dangerous disease in which the cause was unknown, the medical treatments ineffective, and the surgical treatments hazardous. Prevention was the obvious policy . . . Although antenatal care was seen as a panacea for maternal mortality as a whole, toxaemia was the primary reason for its widespread introduction …Antenatal care also provided the opportunity for improving the general health of mothers during pregnancy, and the means of selecting high-risk mothers (first pregnancies, bad obstetric histories, small stature, contracted pelvis, multiple pregnancies and so on) for hospital delivery; but these were secondary considerations in the early days of antenatal care…[168]

[166] P. Bennett and D. Edwards, "Use of magnesium sulphate in obstetrics," *The Lancet*, 350/9090 (22 Nov 1997), 1491; D. Altman et al., "Do women with pre-eclampsia, and their babies, benefit from magnesium sulphate? The Magpie Trial: a randomised placebo-controlled trial," *The Lancet*, 359/9321 (1 June 2002), 1877-1890.
[167] Loudon., *Death in Childbirth*, 86-89.
[168] Ibid., 90.

Throughout the previous (nineteenth) century, doctors could not understand the seemingly contradictory manifestations of puerperal illness. Puerperal convulsions were evenly distributed throughout the childbearing population. The majority of puerperal fever cases were, surprisingly to many doctors, suffered by middle-class mothers.[169] The medical community was puzzled by such inconsistencies. Their desperation to end this confusion was the driving force behind doctors' investigation into pregnancy and the lives of pregnant patients, and the view of Loudon, that "improving the general health of mothers during pregnancy, and the means of selecting high-risk mothers . . . for hospital delivery" were "secondary considerations in the early days of antenatal care" can be seen reflected in the records of diet and nutrition of London maternity hospitals before 1900.

Loudon's description of the development of antenatal care and the focus of the nineteenth-century obstetric community on discovering the causes of and cures for puerperal fever and puerperal convulsions allows for a different interpretation of the behaviour of doctors throughout the nineteenth century and during the era of the Infant Welfare Movement. Not only does it argue that antenatal care was originally viewed as a method of preventing maternal mortality, not safeguarding the child's health by improving the mother's, but it illustrates that the medical community was greatly bewildered by maternal mortality for the majority of the nineteenth century, and was mostly concerned with examining pregnancy for the purpose of determining the cause and cure of delivery complications. It is in this context that the role of food and diet in pregnancy was considered and it is for this reason that antenatal care did not focus on diet until significant advances were made in the study of nutrition which

[169] Ibid., 86.

revealed the relationship between poor maternal nutrition and infant health and mortality.

Records from maternity hospitals support this theory that the medical attention paid to diet during pregnancy emerged from a concern with the health of the mother, specifically with her health during delivery. Also apparent is the role of diet in the search for a cause of or a cure for puerperal infection and convulsions. Doctors took note of their patients' nutritional status (based both on appearance and direct questioning), and at the General Lying-in Hospital of London, doctors also recorded the food cravings experienced during each pregnancy after 1888 in the medical officer's casebooks. These records reveal the concern with diet and mother's health, as well as the over-arching concern with puerperal fever and the futility of nineteenth-century obstetrics to cope with this problem of infection.

In 1884, doctors at the hospital were recording their observations in a pre-printed, standardised casebook, and notes on patients' diets were written in the space entitled "Muscular and Bony System." Remarks such as "ample food" and "well-nourished" reappear throughout the book. Many are listed as "fairly nourished." Occasionally one reads "insufficient" or "awful" food. When a Mrs. E. Smith was admitted to the hospital in February of 1884, the attending doctor wrote "sufficient food," under "Muscular and Bony System" but under the section labelled "Size" he writes, "weakly, pale and not well nourished." Such labelling indicates that doctors were considering both the diet consumed during pregnancy as well as the nutritional history of each woman in their assessment of their patients' health. Mrs. Smith's baby died at one week from convulsions,[170] as did several children in the records whose mother's were listed as hitherto receiving insufficient nourishment. Unfortunately,

[170] Case 31, General Lying-in Hospital Medical Casebook; January-March 1884, LMA, H0/GLI/B/19/017.

there is no indication whether or not doctors noticed the significant correlation between the two in 1884.

By 1888, the pages in the medical casebooks had become more detailed, listing spaces for comments on "temperament," "residence – sanitary condition," and lines for listing both husband and wife's occupation. An increase in concern for the patient's diet might be indicated by the new specifications under "General Appearance" which include "nourishment" as well as "development" and "colour of hair, eyes and skin" and the pre-printed labels to delete as necessary such as "total abstainer; temperate; intemperate" and "Food sufficient; insufficient." Clearly, mothers' nutrition was viewed as an important aspect of this assessment; enough so that the manner in which the observations were recorded was no longer left up to the discretion of the medical attendant. One can see this type of standardisation emerging both in the medical casebooks and in the instruction given to medical students: "Pupils are required to note the cases after the following manner – asses the present state of the nervous system with state of the mind – of the senses – state of feeling as to strength or weakness . . . and the digestive system, the tongue – its sensations, stomach – its sensations, functions."[171] However, measurements were not specific and one gets the sense that this "medicalisation of childbirth" was more of a trial-and-error process than an exact science. Under size, subjective descriptions such as "fairly tall" or "rather short" are given instead of height measurements. And with no direction on what exactly to record under "General Appearance" individual cases resemble lonely hearts adverts: "Dark hair, blue eyes, well-developed." Just how recently obstetric care had emerged in the nineteenth century is painfully obvious in these records. One can understand the difficulty of assessing the health of a woman

[171] Medical Officers Book 1829-1837, General Lying-in Hospital, LMA, H.1/GLI/B/19/3.

entering care with few instruments and essentially no idea of what to look for to determine the likelihood of labour complications.[172] Pregnant women were often admitted to maternity hospitals if they were having their first child, or if they had a history of difficult deliveries. Unless the mother had a history of labour complications, or if she was suffering from tuberculosis or a similar disease during confinement, doctors had little idea what to expect when the infant decided to present itself. These records illustrate that diet was just one of many factors examined while trying to asses a pregnant woman's potential for illness.

Pregnant women's diet was being considered by the medical community, but only in the context of attempting to predict the health of its patients at the time of delivery. As far as infant health was concerned, there is no evidence that doctors were looking for a correlation between the child's development and the mother's nutrition, except for a Victorian superstition that prompted them to search for a possible relationship between cravings and birth defects. English folklore which had persisted from the sixteenth century into the early twentieth insisted that experiences during pregnancy imprinted themselves on the infant in the womb, so that an unfulfilled craving for a specific food might manifest itself in a birth defect or birthmark resembling that food.[173] Referred to as the "doctrine of longing," such beliefs were what prompted doctors to record their patients' cravings in the General Lying-In Hospital's Medical Casebook of 1888 and to start searching for a pattern between what was consumed, or not consumed as was usually the case, and the health of the

[172] Many common medical instruments had not yet been invented or were only very slowly introduced. For example, Robert Fogel writes that until platform scales were invented in the 1860s, weight data in army medical records, a source heavily relied upon by historians for anthropometric data, was exceedingly rare, 4.
[173] Iona Opie and Moira Tatem (eds), *A Dictionary of Superstitions* (Oxford: OUP, 1989), 317; Ellen Ross, 111.

infant. Still, they were not considering the nutritional value of the foods mothers' craved or its relationship to the health of their children.

When doctors did realize the direct connection between maternal nutrition and infant health in 1903, it was, once again, concern over the health of the mother at the time of delivery that prompted investigation into the subject and ultimately led the medical community to an understanding of the importance of maternal nutrition on infant health. Rickets, a condition affecting so many in Britain during the nineteenth century that it was referred to as "The English Disease," is brought on by a deficiency in vitamin D and interferes with bone development, often affecting the pelvic bones of women and preventing the necessary expansion during labour.[174] In 1901, Dr. Prochownick conducted a series of experiments in Germany to "determine if by reducing the diet of the mother the size of the child might be so diminished that labour should be facilitated in cases of narrow pelvis."[175] The results of these experiments inspired Dr. Diarmid Noel Paton to conduct his own, from which he concluded that "the size of the offspring depends very directly upon the diet and nutrition of the mother during pregnancy" and that:

> While this . . . confirms Prochownick's conclusion that by dieting the mother the children of rickety women may be so reduced in size as to be viable, it also probably helps to explain the very high infant mortality among the very poor. The infant starts life at a low level and readily succumbs to the hardships to which it is too often subjected.[176]

Thus it was concern over the mother's well-being during delivery, specifically the labour complications resulting from poor maternal nutrition, which were responsible for the medical discovery of the connection between maternal diet and low infant

[174] Anthony Wohl, *Endangered Lives*, 56-57. See chapter eight of this thesis.
[175] D. Noel Paton, "The Influence of Diet in Pregnancy on the Weight of the Offspring," *The Lancet* (July 4, 1903), 21.
[176] D. Noel Paton, "The Influence of Diet in Pregnancy on the Weight of the Offspring," *The Lancet,* (July 4, 1903), 22.

birth weight, but ironically with an eye to reducing birth weight even further to safeguard women with rickets.[177] Both the discovery of the relationship between maternal diet and infant health and the development of antenatal care followed the same pattern: a primary concern for the health of the mother eventually leading to an understanding of the relationship between infant and maternal health and a desire to manipulate that relationship to ensure a low rate of infant mortality.

Jane Lewis may have been correct when arguing that early twentieth-century doctors ignored "the effect of biological, environmental, and social variables"[178] involved in determining infant mortality because their "studies concentrated on pinpointing the medical failure responsible for death." True, the early twentieth-century response to infant mortality – to educate mothers in childrearing, instead of offering them better antenatal care and direct aid to improve their diet – was the result of a concentrated focus on "medical failure" rather than preventative measures. However, this strategy emerges from a tradition of medical preoccupation with *maternal* death which consumed the energies and efforts of the nineteenth-century obstetric community. As Loudon attests, antenatal care only developed once doctors realized that the deadly labour convulsions caused by toxaemia could be predicted months in advance. Thus, Ann Oakley is incorrect in her claim that antenatal care was the result of doctors attempting to expand the realm of their medical jurisdiction over

[177] Of course, Doctors Paton and Prochownick could only speculate on the risks of low birth weight, now associated with higher rates of neonatal death, respiratory infections and learning difficulties. Recent research has indicated that fetal growth retardation associated with maternal hunger and malnutrition may even lead to diseases such as diabetes and heart disease: "Undernutrition, particularly foetal undernutrition at critical periods, may result in permanent changes in body structure and metabolism. Even if there are not subsequent nutritional insults, these changes can lead to increased probabilities of chronic non-infectious diseases later in life." J. R. Behrman *et al.* "Malnutrition and Hunger," *Global Crises, Global Solutions,* (ed.) Bjorn Lomborg (Cambridge: CUP, 2004) 369. Although one respondent in *Maternity* wrote that she dieted to make her foetuses smaller for less complicated deliveries, she was also a vegetarian and acknowledged that her midwife considered her behaviour faddish (*Maternity*, 177-179). Prochownick and Paton's findings do not seem to have led to therapeutic underfeeding of pregnant women. Induction of labour appears to have remained the preferred solution for delivering rachitic women while preserving the life of the child.

[178] Jane Lewis, 41.

all aspects of childbirth.[179] Just the opposite is true. Doctors were preoccupied, to the exclusion of all else, with the health of their patients at the time of delivery and the days immediately following. The failure of antenatal care to focus on women's general well-being during pregnancy can be blamed on the single-mindedness of nineteenth-century doctors in searching for "medical failure" during the time of their limited interaction with patients: the time of delivery. This single-mindedness was anything but what Lewis refers to as "neglect."[180] Doctors were examining childbirth to stop a terrifying killer of women that struck both in the home and in the hospital, and although cases of sepsis in maternity hospitals declined below those of home delivery by the 1890s, cases of eclampsia remained high and evenly spread throughout the population of childbearing women, regardless of delivery by a midwife or a fashionable and pricey obstetrician.

In describing the feelings of powerlessness in the face of maternal mortality, specifically puerperal infection confronting the medical community Loudon writes:

> The uncomfortable truth was that nothing worked. In 1930 towards the end of a life devoted to obstetric practice and research, Whitridge Williams of Baltimore was driven to therapeutic nihilism. The septicaemic cases nearly all die, he said, and the others nearly all recover. Treatment was never effective. In fact, intervention in mild cases of fever does more harm than good. All that could be done for cases of puerperal fever was good nursing to make the woman comfortable and leave the rest to nature. [181]

Williams's admission of defeat came after obstetricians had been fighting maternal mortality, and trying to discover its causes, for more than a century. Nineteenth and early twentieth-century doctors may have been prone to tunnel vision, but they were in no way negligent. They were neither uninterested in women's needs, nor were they involved in a grand conspiracy to pathologize childbirth. It is no coincidence that

[179] Ann Oakley, 5.
[180] Jane Lewis, 41.
[181] Loudon in *Death in Childbirth*, 84.

maternal nutrition became a focus of antenatal care in the 1930s, after doctors were controlling puerperal fever with drugs, preventing death from toxaemia with caesareans (and thwarting subsequent infection with sulphonides) and after the existence and value of vitamins had been discovered. During the nineteenth-century, doctors regarded maternal nutrition from a perspective that *was* class-biased and largely influenced by medical and cultural beliefs regarding diet, nevertheless what contemporary historians consider to be a delay in the concern for antenatal health was the prioritisation of one essential aspect of women's health over the investigation into the general well-being of women and the relationship between maternal health and infant survival.

Part II:

What Women Ate

Chapter 5

Introduction to Part II

Since the 1970s, feminist and economic historians have increasingly focused on the gendered inequalities of diet in the nineteenth century. This work has both theoretically and empirically suggested that there was indeed a strong trend among working-class households for women to consume less than their husbands, and often children, and that this inequality was detrimental to the health of generations of British women. However, despite the observations of modern economic historians regarding similar phenomena in the developing world, it is my belief that the causes of such inequality among nineteenth-century working-class families remain to be adequately explained. Although nineteenth- and twentieth-century writers have suggested a variety of reasons for mothers and wives eating less than their husbands, these explanations remain flawed. Attempts to provide reasons have been plagued by excessive emphasis on single explanatory factors despite their weaknesses and a lack of a cohesive exploration of the debate as a whole. Such reasoning has led to an oversimplification of the causes of unequal food distribution in Victorian households. In addition, historians have disagreed on the point of origin of the ideology of unequal distribution of food.

One of the goals of this section is to illustrate how many of these factors contributed to the systematic nutritional deprivation of working-class women becoming solidified as a practice in the nineteenth century. Several historians have suggested that the unequal allocation of food between men and women, as well as women eating less than other family members, is an old, pre-industrial tradition. Laura Oren writes, “Even before the industrial revolution in the families of English agricultural labourers, food may have been distributed in similar [unequal] customary

proportions. Ivy Pinchbeck, for example thought that the eighteenth-century agricultural labourer's wife was the most likely to suffer from any shortages of family earnings."[182] In support of this view, Oren also cites the work of Natalie Davis and Alice Clark. However, the evidence on men receiving a greater share of food provided by Davies to Oren was in the form of personal correspondence, and was based on gender-biased food allowances indicated in wage-lists, not unequal distribution within the household, or illustrating, as Bernard Harris writes, "that women in poorer families discriminated against themselves," as was the trend during the nineteenth century.[183] Also, Clark and Pinchbeck offer little to support their claims that women in the seventeenth and eighteenth centuries regularly received an unequal share of household nutritional resources. According to Pinchbeck, "the mother was the most likely to suffer by any [food] shortage," but she provides no references or evidence to support this statement, nor gives any reason as to why this occurred.[184] Like Pinchbeck, Clark writes, "Whatever money was extorted for rent meant so much less food for the mother and children," but neither elaborates nor provides any evidence as to why men did not suffer deprivation along with the rest of the family.[185] While women may have suffered from nutritional discrimination before the nineteenth century, there is little evidence to show working-class women's self-deprivation was systematic. However, historians Caroline Walker Bynum and Joan Jacobs Brumberg have both effectively argued the existence of a long European tradition of female fasting and food refusal within the family, ostensibly as an expression of religious

[182] Laura Oren, "The Welfare of Women in Laboring Families: England, 1860-1950," 227.
[183] Laura Oren, "The Welfare of Women in Laboring Families: England, 1860-1950," 241; Bernard Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," 418.
[184] Ivy Pinchbeck, *Women Workers and the Industrial Revolution, 1750-1850* (London: George Routledge and Sons, 1930), 104.
[185] Alice Clark, *Working Life of Women in the Seventeenth Century* (London: Routledge, 1919), 79.

piety.[186] I will illustrate in **CHAPTERS** how food refusal had cultural weight which made it a powerful and virtuous act, and how this tradition of food refusal translated into an effective economic strategy during the nineteenth century.

Nicholas and Oxley have argued that the nutritional disadvantage of women arising from unequal intrahousehold distribution occurred as a direct result of the industrial revolution's depression of female economic opportunities.[187] In this section, I hope to illustrate that the industrial revolution heavily contributed to systematic deprivation, but not just because it reduced women's economic opportunities. The poverty and reduced labour-market opportunities for women created the necessity for economic strategies, but class and gender associations with food and the tradition of virtuous fasting made women's self-denial a particularly effective economic strategy, which will be explored in **chapters 4 and 5.** And aside from the way the industrial revolution contributed to unequal distribution and nutritional deprivation by marginalizing women economically, reducing their bargaining power, and increasing their dependence on their husbands and teenage children, the industrial revolution contributed to women's systematic deprivation in a way not previously considered by women's or economic historians: by *increasing* material wealth among the working classes. This theory will be explained at length in chapter 6, "The Communal Bowl and Inverse Standard of Living: More Conspicuous Consumption, Less Nutritional Consumption."

What follows explores the major arguments of the debate surrounding the cause of women's unequal consumption and nutritional deprivation. The following

[186] See Joan Jacobs Brumberg, *Fasting Girls: the history of Anorexia Nervosa* (New York: Random House, 1988) and Caroline Walker Bynum, *Holy Feast and Holy Fast: the religious significance of food to medieval women* (Berkeley: University of California Press, 1987).
[187] Nicholas and Oxley, "The Living Standards of Women During the Industrial Revolution, 1795-1820," 737.

chapter will focus on revealing their weaknesses and discuss the conclusions that such an analysis has brought about. After a discussion of the historiography of women's diet, arguments which will be considered are the breadwinner theory of unequal consumption, rational discrimination, ideas of male selfishness and gender inequality, need-perception, and ultimately my findings concerning ideas of femininity and status through non-consumption, which all contributed to the self-denial and unequal consumption perpetuated by working-class women, and which will be explored in depth in chapters four, five and six.

Chapter 5

Food in the Home: An Historiography of Unequal Consumption and Food Distribution in the Nineteenth-century Working-class Family

And what does Daddy get for all his work? The big piece of chicken! That's all Daddy gets, it's the big piece of chicken…a man can't work twelve hours and come home to a wing!
-Chris Rock (American Comedian), *Cheese and Crackers*

It must be stated explicitly that *poverty*, without a doubt, was the main contributor to female malnourishment in the nineteenth century, and remains the ultimate reason women continue to starve worldwide. Yet although poverty explains why women did not eat enough, it fails to explain why they did not eat as much as their husbands, or as was often the case, less than their children. The insufficiency of resources causes deprivation, but it does not cause the unequal allocation of said resources. Many other economic, cultural and social factors contribute to differential nutritional welfare. How did this discrimination operate? How was it perpetuated? This chapter aims to go beyond the acknowledgement that nineteenth-century working-class women were poorly fed, and to explain the reasons for the unequal allocation of food within the Victorian working-class household by examining past and present explanations for women's inferior diets offered by feminist and economic historians from a variety of disciplines.

As shown in the previous chapter, food historians have largely ignored the question of women's diet and its implications for maternal and infant health. Although social commentators and investigators of the late-nineteenth and early-twentieth centuries first presented evidence of the inferiority of nineteenth-century working-class women's diet compared to men's, early twentieth-century economic historians such as Ivy Pinchbeck and Alice Clark made only brief references to it, and

the majority of the work done on Victorian and Edwardian diet used sources such as records of food production and trade which, as food historians D.J. Oddy and Derek Miller themselves admitted, fell short of revealing who was doing the purchasing and consuming.[188] Although social historian John Burnett first presented women's unequal consumption in the context of food history in the 1960s, the beginnings of exploration into the Victorian and Edwardian woman's diet are recent and largely the product of gender historians, such as Elizabeth Roberts, Ellen Ross and Lara Marks. In 1974, Laura Oren sought to distinguish women's welfare experience within the standard of living debate in her article "The Welfare of Women in Labouring Families: England 1860-1950,"[189] which re-examines Maud Pember Reeve's *Round About a Pound a Week*, and challenges the assumption of the family as an economic unit in which wealth and consumption are distributed equally. Oren's article remains the seminal work on the unequal distribution of food within nineteenth-century households. It is still widely cited, possibly indicative of the little work that has been done on this topic in the intervening years.

Since Oren, economic historians have used data such as mortality and morbidity studies to identify patterns of consumption within families and explore the sacred space of the household, the realm which had evaded classical food historians using more traditional methods of research. However, the writings of economic historians have suffered for reasons best described by Frances R. Woolley: "First, feminist economists are economists and are reluctant to dispense with the notion of

[188] D.J. Oddy and Derek Miller. *The Making of the Modern British Diet.* London: Croom Helm, 1976, 9. John Burnett also comments on the inadequacy of trade records for determining consumption in *Plenty and Want*, 29.
[189] In *Clio's Consciousness Raised*, ed. Hartman and Banner (New York: Harper and Row), 1974, 226-244.

rationality."[190] When John Burnett first described the inequality of food distribution within the home, using more traditional methods of social history and citing evidence of the majority of meat and fat going to the male head of the household while his wife subsisted on small amounts of starchy carbohydrates, he failed to explore why or how over half of the working-class population survived on "tea three times a day, sop, bread, and treacle."[191] Such inequality in household diet has since been examined by economic historians, focusing on empirical outcomes which suggest that such inequalities did exist with adverse effects on women's health, and that this phenomenon of impoverished women consuming an unequal share of family food was not limited to Victorian England.[192] Burnett offered the explanation that men received the lion's share of fat and protein in the meals consumed by the family to ensure the family's economic survival and to fulfil the caloric needs of heavy labour. This phenomenon has since been dubbed the "breadwinner effect" by anthropologist Daniel Gross, and resembles similar stratagems of deliberate unequal distribution which I will henceforth refer to as "rational discrimination," an economic term usually used to refer to institutional or corporate discrimination against social groups for the maximisation (or perceived maximisation) of profit, but which I will appropriate for use in the context of the family. Ellen Ross responds to Burnett in her book *Love and Toil: Motherhood in Outcast London*, quoting him before delving into her own exploration of what wives and mothers ate. Contrary to Burnett's remark that "it is hard to imagine how men could have borne the immensely long hours which

[190] Frances R. Woolley, "The Feminist Challenge to Neoclassical Economics," *Cambridge Journal of Economics*, 17 (1993), 491.
[191] Burnett, *Plenty and Want*, 45.
[192] See Jane Humphries, "'Bread and a Pennyworth of Treacle': excess female mortality in England in the 1840s," *The Cambridge Journal of Economics*, 15 (1991), 451-473. Also see Jocelyn Kynch and Amartya Sen, "Indian Women: well-being and survival," *Cambridge Journal of Economics*, 7 (1983).

they worked without a diet considerably richer in proteins than that received by the rest of the family,"[193] Ross writes:

> The "breadwinner effect" explanation is not very convincing, as countless feminist scholars have noted. First, as a result of pregnancy, lactation, and heavy domestic and/or waged labour, women's caloric needs were generally not much lower than those
>
> of their husbands . . . yet even men who do relatively little labour get extra meat.[194]

Ross claims that the phenomenon of giving men the largest share of meat, rather than being a tactic for the survival of the nineteenth-century working-class family, was a symbol of gender distinction and domestic hierarchy.

Ross and a number of economic and feminist historians have challenged the traditional motivation of the "breadwinner effect" suggesting that this simple explanation is flawed. But while the work has been rich and forward-looking, it was, in fact, anticipated by social reformers a century earlier. While it took economists until the end of the twentieth century to realize the family does not consist of a single individual, groups such as the Fabian society and the Women's Co-operative Guild were under no such illusions at the close of the nineteenth century. In "The Working Life of Women," a Fabian tract written to alert readers to the dangerous and physically draining housework still being practiced by women in 1911, Mrs. B. L. Hutchins writes, "…the still more painful fact is remembered that the very person responsible for all this work is often the one of the family who in the case of need is the first to go short of food."[195] When Ross attributes the unequal distribution of food within the working-class family to household gender hierarchy, she echoes Beatrice Webb, who "connected women's silent domestic deprivation with their low public

[193] Burnett, 55.
[194] Ellen Ross, *Love and Toil*, 104.
[195] B. L. Hutchins, *The Working Life of Women*, Fabian tract No. 157, Fabian Women's Group Series No. 1 (London: The Fabian Society, 1911), 4.

status," and nineteenth-century women activists who "viewed the starvation of England's mothers as a reflection of their low status and disenfranchisement."[196]

The interpretation of women's inferior diet compared with that of their husbands as a manifestation of women's inferior status within society and the home is the basis for much current economic work on excess female mortality in developing countries. Here differential mortality is firmly linked to unequal food distribution within the household.[197] In *The Irish: Emigration, Marriage and Fertility,* R. E. Kennedy's examines excess female mortality in nineteenth-century Ireland and links this phenomenon to the subordinate position of women and its effects upon intra-family food allocation.[198]

The discrediting of the breadwinner theory by historians is laudable, however in this chapter I wish to re-examine the alternative explanations offered for unequal consumption in the working-class home and to ultimately disprove the conclusions reached by Kennedy and other economic and gender historians: that the inferior status of the mother within the family was responsible for unequal food consumption within the family. The ideas of gender and social hierarchy which allowed for the perpetuation of unequal food allocation are infinitely more complex than any historian has dared consider. This chapter will aim to show that inequality of food consumption within the nineteenth-century working class household was less a rational economic strategy, or the reality of "male selfishness" or gendered beliefs regarding need and deserving, or of inferior status, and more a case of internalised gender and familial roles and representations of femininity, ultimately intended to enhance the status of mother within the household.

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[196] Ellen Ross, *Love and Toil*, 55.
[197] See Kynch and Sen, "Indian Women: well-being and survival," *Cambridge Journal of Economics*, 7 (1983).
[198] R. E. Kennedy, *The Irish: emigration, marriage and fertility* (Berkeley: University of California Press, 1973), 51-55.

As stated before, the "breadwinner effect" fails to explain a number of factors surrounding the inequality of consumption in nineteenth-century working-class homes. For instance, it ignores the reality of women's calorific needs being almost equal to that of their husbands during lactation and pregnancy while performing household labour. Moreover, it does not explain the inferior diet of women when their work was equally necessary to maintain a household. A wife falling ill or dying as a result of poor nutrition could be almost as equally economically disastrous as a husband's incapacitation or death.[199] Finally it fails to offer any explanation for the often superior diets of unemployed children.

Aware of these limitations of the breadwinner theory, Laura Oren was the first to among women's historians to challenge the notion that all family members in a household had an equal standard of living. Oren used budgets provided by Reeves and the letters to the Women's Co-operative Guild in their publication, *Maternity*, to support this theory. While Oren accepts Maud Pember Reeve's belief that working men should not be criticized by the middle class for using a small portion of their meagre wages for tiny indulgences in tobacco and alcohol, she pointedly reminds her reader that this reserved pocket money, however small a proportion of a man's wages, lowered the standard of living of the working-man's family. While Oren acknowledges that much of this pocket money was used for personal expenses such as transportation to and from work, insurance, and clothing or boot clubs, she marvels at

[199] Unfamiliar with their wives' household management methods, husbands whose wives fell ill often found it difficult to balance the household budget and keep out of debt. See Maude Pember Reeves's comparison of a husband's expenditure to his wife's when she was sent away, *Round About a Pound a Week*, 172. Helen Bosanquet claimed that children fared better with a widowed mother rather than a widowed father, as widows managed financial hardship better than widowers; see 86 below. Ben Brierley wrote that when his mother died: "I was overwhelmed with visions of what our home would be without her. I had known other boys who had been left motherless go to rags in both clothing and morals, and feared that such would be my fate." (Brierley, 25-26). When mothers died families appear to have been at greater risk for breaking up compared to when fathers died: E.M. Last's sister had to return home from service when his mother died to "help keep the family together," (Age Concern Essay, ERO, T/Z 25/461) and when Margaret Donaldson's mother died at some point before the 1880s, the household was broken up and the children sent into service (Fryer,*Wilmslow Graves*, 98-99).

the amount spent on personal luxuries. How could a man know that his children were hungry and continue to purchase tobacco and beer, even a tiny amount, for himself? Here, Oren explores possible economically rational reasons for the seemingly irrational behaviour of wives consuming less than their fair share of a household's resources while their husbands spent money on non-essentials:

> Perhaps pocket money encouraged men to work by giving them the illusion of independence. Vulnerable and sometimes even helpless in the economic market where he sold his labour, the working husband demanded to feel like a 'man" in his own family. The control of money somehow conveyed independence. For example, inmates of Poplar's poor-law labour colony received no spending allowance. Because they were paupers they had forfeited their right to independence, symbolized by pocket money.[200]

Oren suggested that beyond providing extra nutrition for their husbands to ensure the health and productivity of the provider, which would be a manifestation of the logic of the breadwinner theory, working-class wives felt a responsibility to their husbands' happiness. Allowing for indulgences in tobacco and alcohol was an economically-based decision to ensure the "good-faith" of the husband, and provide an incentive for him to continue working.[201] In addition to the breadwinner's basic nutritional requirements, wives' perception of their husbands' psychological needs associated with diet perpetuated their undernourishment. According to Oren, wives sacrificed their share in the only elastic area of the family budget to provide the extra resources to fund their husbands' additional food and personal spending: they secretly went without food for the rest of the family's economic survival. Rather than being an example of low status within the family, Oren blames external gender inequality in employment and women's inability to support a family without a husband for this dietary inequality in the household. The decision to go without was not a reflection of

[200] Oren, "The Welfare of Women in Laboring Families," 239.
[201] Oren, 239.

a lack of respect or appreciation for the efforts of wives and mothers, but a calculated, rational, economically-based stratagem.

Oren's explanation of the unequal distribution of food within the working-class family extended the economic rationality of women to fill the gaps left by the popular breadwinner theory. Oren's theory of a wife sacrificing an equal share of nutritional resources to retain the "good faith" of her husband and ensure that he continues working for the family is the precursor to a very recent economic model of intra-household resource distribution currently being explored by historians. In "Measuring Misery: body mass, ageing and gender inequality in Victorian London," authors Horrell, Meredith and Oxley offer an overview of this model:

> …[distribution] outcomes are negotiated within the household and are the product of bargaining. Bargaining positions are determined by individuals' threat points: the utility each would gain in the event of non-cooperation. The stronger the position (the less to lose) in the event of household dissolution, the more that individual can capture the gains from cooperation. Women, because of their weak labour market position, lack of property rights and responsibility for social reproduction tend to lose out to men in this competition and hence receive a smaller share of the household's resources.[202]

However, Horrell, Meredith and Oxley state that, based on their evidence, increasing social status and resources failed to reduce inequality between men and women, and "instead, the evidence supports a model of bargaining where power is attributed to labour market position and threat points determined by social as well as economic factors…"[203] I will attempt to define these social factors affecting unequal distribution during the nineteenth century by examining the shortfalls of Oren's model which left questions still unanswered as to why such intra-family inequality existed in

[202] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," 95.
[203] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," 115.

consumption. While Oren explained that any bonuses, overtime, or increase in wages usually went directly into the pocket of the husband, and that men were often unwilling to increase the income allocated to their wives for domestic use as their family grew or when their wages increased with the inflation of prices,[204] she failed to explore the distribution of household income when the opposite occurred and wages were lost.

Many examples of unequal food consumption in nineteenth-century families exist in evidence garnered from households where the "breadwinner" was either unemployed or employed irregularly. A case study by the Liverpool Economic and Statistical Society from 1909 offers examples of dock workers (whose employment was very unsteady) expecting extra food, and even tobacco, when they were out of work.[205] Although the habits and traditions of any given family are prone to continue despite changes in circumstance, if the decision to go without food was a rational and economically-based decision to physically and psychologically ensure the breadwinner's continued earning, why continue depriving oneself and one's children to maintain the standard of living of a husband who is no longer contributing to family income? Why did women feel the need to ensure the husband's "good faith" so that he would return to work? As far as incentives to work are concerned, a drop in standard of living as wages are lost seems to be an adequate incentive to actively seek re-employment. However, not only did women bear the brunt of insufficient funds caused by unemployment by again cutting back on personal consumption, evidence

[204] Oren, 231.
[205] Liverpool Economic and Statistical Society, *How the Casual Laborer Lives; report of the Liverpool Joint Committee on the domestic condition and expenditure of the families of certain Liverpool Labourers* (Liverpool: The Northern Publishing Co., 1909): See case xi on page xxxiii of the introduction, and case no. 13 on page 34. Interestingly, both cases were from households where the husband was known to be violent; for an examination of the role of violence in unequal food distribution, see 200-203 below.

shows that men still retained a portion of their unemployment benefits or income from temporary employment for personal luxuries.

In 1926, Dr. D. Noel Paton, the British doctor who first discovered the correlation between diet during pregnancy and birth weight, published the findings of a study on the relationship between diet and development that the Medical Research Council had started before the First World War. One aim of this study was to examine the dietary habits of individual families as income fluctuated. Using techniques such as weighing all food purchased by the family, keeping records of the meals consumed by each member of the family and judging the nutritional value of each week's refuse, the investigators discovered that the dietary habits of families remained relatively static as income fluctuated, borrowing during periods of poverty and repaying debts when there was any weekly surplus.[206]

The study also examined the distribution of income and diets of three families in Dundee surviving on unemployment insurance. Even when the breadwinner was out of work and receiving money specifically for supporting his family, he apparently retained pocket money and used it on personal luxuries:

> In two families, the fathers spent a relatively large amount on tobacco (1s. 8d. and 1s. 11d.) while in the third he retained 7s. out of the 18s. paid to him, leaving his wife with 11s. and her own 12s. for all the family expenses. The fathers declared that tobacco served them instead of food and that the children therefore were able to eat a larger portion of food bought…[207]

Insurance benefits at this time consisted of 15s. for an employed man, 5s. for the maintenance of his wife – "12s. if she herself is entitled to the insurance"[208] – and 1s. for each child under fourteen. In the case of the third father, 3s. of his benefit was

[206] D. Noel Paton, *Poverty, Nutrition and Growth Studies of Child Life in Cities and Rural Districts of Scotland*, Privy Council; Medical Research Council special report series No. 101 (London: His Majesty's Stationery Office, 1926), 149-150.
[207] Paton, *Poverty, Nutrition, and Growth Studies*, 170.
[208] Paton, 170.

specifically allocated for the maintenance of his three children, which means he used nearly half - 7s. of the 15s. entitled to him as an unemployed worker – for his own personal use. Detailed descriptions of the family diet before unemployment are not given, so it is hard to say who was most affected by the decrease in family wages. In this instance, Oren's questions, "But what about the pocket money that men 'wasted' on alcohol or tobacco? Why didn't women challenge this apparent selfishness?"[209] are not answered by her explanation of concealed sacrifice to keep a husband content and consistently working. Clearly, a man needs no incentive to receive unemployment benefits, and if paupers were denied pocket money because Victorian society considered men without work undeserving of special treatment, why did women allow their husbands to retain a portion of an allowance given intentionally at the subsistence level to discourage luxury?

In the case of the Dundee families, a husband's dietary needs would certainly not be any greater than his wife's as he was no longer performing labour. In fact, his needs were probably less than his wife's as her housework and childbearing did not decrease in response to new circumstances (and, as many autobiographies attest, often increased as women took in laundry or piecework to soften the blow of their husbands' lost earnings). For women to go without while their husbands bought alcohol and tobacco with their unemployment benefits casts doubt on Oren's proposed explanation: that the unequal distribution of family resources was an economically rational decision to ensure a husband's psychological well-being, as well as his health, to preserve his efficiency and productivity as a provider. Neither "rational discrimination" nor Oren's variation on the breadwinner theory solely

[209] Oren, 238.

perpetuated the inequality of female food consumption. However, some answers may lie in Oren's attack on the "apparent selfishness" of male heads of households.

Something Oren failed to consider in her attack on "male selfishness" were the addictive qualities of alcohol and nicotine, which must be considered when examining the "wasteful" expenditure of a husband's pocket money on beer and tobacco. Although Oren quotes Brian Harrison's *Drink and the Victorians* – if "by modern standards – male selfishness did exist, there were good reasons for it."[210] – she claims "an appreciation of the vitality and importance of the male working-class culture associated with drink and drinkplaces does not alter the impact of money spent in this way on women's standard of living."[211] Regardless of the culture of drink, many men consumed alcohol because they were physically and mentally addicted to it, which has little to do with "selfishness" and everything to do with the addictive properties of beer. Similarly, husbands would have found it very difficult to give up smoking even if there were negative consequences for their families, for that is the definition of chemical dependence: "Nicotine is the psychoactive component of tobacco products that causes persons to continue to smoke despite harmful physiologic and social consequences."[212] Nicotine also increases metabolic rate and actually *is* an appetite suppressant – those Dundee fathers who claimed tobacco kept them from eating were correct (although their justification would only make economic sense if it cost less to purchase tobacco than to simply spend more money on food).[213] Though this neither justifies nor alters the impact of alcohol and tobacco consumption on a woman's standard of living, it may offer many explanations for why men insisted on retaining

[210] Brian Harrison, *Drink and the Victorians: the temperance question in England 1815-1872* (Pittsburgh: PUP, 1971), 47; as quoted by Oren, 233.
[211] Oren, 233.
[212] Lori D Karan, *et al.* "The Pharmacology of Nicotine and Tobacco," in *Principles of Addiction Medicine* (Chevy Chase, Maryland: ASAM, 2003), 235.
[213] Lori D Karan, *et al.* "The Pharmacology of Nicotine and Tobacco," 242.

pocket money and why women "allowed" such "selfishness." How many women found it easier to reduce their food intake rather than live in a one- or two-room accommodation with a young family and a husband experiencing the symptoms of alcohol or nicotine withdrawal? Also, how much unequal consumption was the result of fearing an alcoholic's violence, or merely the threat of violence from a sober man who was used to having a disproportionately large share of food for his dinner or tea? The impact of violence on unequal food allocation in nineteenth-century homes, as well as other manifestations of "apparent selfishness" will be explored in chapter seven.[214]

Oren was not the first to contemplate male "selfishness" as a reason for the inferior diet of women. Besides Temperance reformers, social reformers such as Helen Bosanquet examined perceptions of selfishness, gender and need as early as 1898:

> Women are supposed to be able to live on a much less wage than men of the same social standing and this is largely because they accept a much lower standard of living. That is, they are content with less food, less comfort, narrower interests, and less recreation; and this reacts through their impaired vitality by making them less efficient. A widow will bring up two or three children on ten or twelve shillings a week and be considered by herself and others as fairly well-off; a man in the same position will require at least double that amount, and then be accounted very poor. The children will probably be no better off in the latter case, but the man's fortunate selfishness will have kept him an efficient worker, while the woman will be a human wreck. 'The woman needs less,' it is always argued as a reason for women's lower wages; but she needs less only in the sense that is costs less to maintain a low physical standard than a high one.[215]

It is impossible to attribute unequal food consumption within the working-class home merely to "man's fortunate selfishness" as it ignores the obvious: why did women not

[214] See pages 151-154 below.
[215] Helen Bosanquet, *The Standard of Life and other Studies* (London: Macmillan, 1898), 20. For a further exploration of this quotation and the concept of "male selfishness," see page 195 below.

suffer from “female selfishness”? What about Victorian society permitted a recognized male selfishness but denied female attitudes of self-preservation? In this paragraph, Bosanquet appears to have noticed the hypocrisy of the statement “The woman needs less” – and claims that a more accurate statement would be “women accept less” – but has this to do with the lower status of women as Bosanquet’s archrival Beatrice Webb believed? Yes, but not for the reasons offered by Webb and her contemporaries. Helen Bosanquet’s statement “the man’s fortunate selfishness will have kept him an efficient worker” is very revealing, and although Mrs. Bosanquet’s principles may cause doubt as to the validity of her statements (Bosanquet would have supported anything which kept workers “efficient”), she puts forth a comparison of gender qualities and their relationship to need *as viewed* in 1898. Bosanquet’s observation is extremely valuable as it illustrates how *perceptions* can deviate from and impact economic reality, and recent work in economic history explores perception to enrich explanatory models of household distribution.

In 1998, McNay, Humphries and Klasen compared the excess female mortality rates in Victorian England to those in modern India, which they attributed to the unequal distribution of nutritional resources within the home. Like Oren, McNay, Humphries and Klasen pointed out that the “breadwinner theory” ignores women’s role as income earners, and that other factors were at play which entitled male wage-earners to a greater share of household resources. McNay, Humphres and Klasen suggest that the economic marginalisation of women and the “emerging 19th century social norm of the male breadwinner” reduced the *perceived* value of women’s economic contributions to the household economy. This diminished their bargaining power and the legitimacy of their claims on nutritional resources, regardless of the

actual value of their economic contributions, and simultaneously 'played up' the importance of male income:

> Women's perceived contributions to the household may have been small if their work was viewed as merely supplementing the principal wage-earner. Conversely, the bargaining power of the breadwinner may well have been augmented beyond his actual income contributions by the same ideas of women's dependency upon his efforts.[216]

Concepts of perceptions of gender and of need are currently being explored by economic historians studying the unequal distribution of food in developing countries. In their exploration of uneven food distribution within families in India, Jocelyn Kynch and Amartya Sen reassert that economic models which assume that the family as an economic unit follows the pursuit of one, well-defined objective for the maximisation of family welfare are unrealistic, and that there may be conflicting priorities within the household, and that *perceptions* of the needs of certain members of the family may be just as, if not more, important than the reality of needs in determining intra-family food distribution. It is this idea of perception that offers yet another possibility for the reasons behind women's willingness to consume an insufficient share of food. Sen and Kynch write, "In dealing with within-family distribution, the perception of reality – including illusions about it – must be seen to be an important part of reality. Non-perception of disadvantages of a deprived group helps to perpetuate those disadvantages."[217] Clearly, regarding food consumption, working-class women were disadvantaged in that they were receiving less food of a lower nutritional value than the majority of their family members. Were there altered

[216] K. McNay, J. Humphries, S. Klasen, *Death and Gender in Victorian England and Wales: Comparisons with Contemporary Developing Countrie*s, 16-17.
[217] Kynch and Sen, "Indian Women: well-being and survival," *Cambridge Journal of Economics*, 7 (1983), 365.

perceptions of disadvantage that perpetuated such inequality? If so, did they involve a skewed understanding of need?

The first question that should be asked when attempting to judge a woman's perceptions of her needs and her unequal consumption is this: was she even aware of her nutritional needs? If women thought their diet was nutritionally sufficient, if unsatisfying, this may be one explanation for their willingness to consume less than their husbands. Did they believe "I need less and he needs more because he is bigger, male, works harder, etc."? Some did. Letters sent to the Women's Co-operative Guild contain some examples of women who were willing to simply accept that men required more food. One woman wrote of herself in the third person: "The husband must be found his board-money and pocket-money, even if she goes short of necessaries."[218] Another woman wrote, "A woman with little wage has to go without a great deal at those times [when pregnant], as we must give our husbands sufficient food or we should have them at home and not able to work."[219] It is apparent from her testimony that this woman felt her husband needed more food than she did, not necessarily because his employment created a need for more food, and certainly not because she was aware that men require, on average, 500 calories more per day than women, but to keep him *healthy* in order to work. However, other letters to the Women's Co-operative Guild in 1914 indicate that by the late nineteenth century, women were aware of their significant dietary needs, and of their disadvantage, especially during pregnancy, and that this awareness was either created or confirmed by the medical community with which working-class women had contact.[220] One

[218] "Many miscarriages," *Maternity*, (ed.) Margaret Llewelyn Davies, 64.
[219] "Out of bed on the third day," *Maternity*, 20.
[220] This is also confirmed by notes in the Medical Officers Casebooks from the General Lying-In Hospital of London, 1884 –1888. Statements from women to their doctors assert that women often suspected or felt their diets were insufficient during pregnancy and attending doctors often recognized insufficient nourishment during pregnancy. See 66-67 above.

woman, married in 1894, wrote, "…as my little ones began to come, they wanted providing for and saving up to pay a nurse, and instead of getting nourishment for myself *which we need at those times*, I was obliged to go without."[221] One woman wrote to Margaret Llewelyn Davies, secretary of the Guild, saying, "…I had to provide for my coming confinement which meant I had to do without common necessaries to provide doctor's fees, which so undermined my health that when my baby was born I nearly lost my life, the doctor said through want of nourishment."[222]

Despite this knowledge, women continued to spend the weekly budget on other household necessities, or to save for medical care during confinement, rather than an improved diet, pregnancy after pregnancy: "…during the carrying of all my children, except the first, I have had insufficient food and too much work."[223] Another woman described how domestic financial conditions deteriorated with each child before they hit an age at which they could contribute to the family income. She writes of her health problems arising from a lack of nourishment during pregnancy: "I kept on like that till the sixth little one was expected, and then I had all the other little ones to see after. The oldest one was only ten years old, so you see they all wanted a mother's care."[224] This evidence is a direct illustration of the cycle of poverty, as described by Rowntree, and its impact on women's nutritional deprivation. In *Poverty: As Study of Town Life*, Rowntree describes how the labourer's life is plagued by "five alternating periods of want and comparative plenty."[225] Rowntree characterized the periods of poverty as such: in early childhood when the labourer and his siblings have yet to contribute to the family economy, after marriage when he has to support several children before *they* can contribute to the family income, and again

[221] "Twenty years of childbearing," *Maternity*, 18; italics added for emphasis.
[222] "A half-starved pregnancy," *Maternity*, 24.
[223] "I was awfully poor," *Maternity*, 32.
[224] "Twenty years of childbearing," *Maternity*, 18.
[225] Rowntree, *Poverty: a study of town life*, 136.

in his old age when he can no longer work. To this description of the poverty cycle Rowntree added, "It should be noted that the women are in poverty during the greatest part of the period that they are bearing children."[226] The above quotations from *Maternity* reveal not only the accuracy of Rowntree's observations, but the fact that the nature of the poverty cycle meant women were not merely poor, but very likely to suffer a nutritional disadvantage just as their bodies were trying to support foetal growth.

The testimonies published in *Maternity* support the theory shared by Beatrice Webb, the Fabians and the Women's Co-operative Guild: that working-class women's lifestyles had little to do with ignorance and everything to do with insufficient wages. However, providing for one's nutrition was not impossible for many working women during this period. One woman informs Davies that "During pregnancy I always looked to my diet, and as my husband never got more than 24s. 6d. per week, I had not much to throw away on luxuries. I had plain food, such as oatmeal and bacon…"[227] Another mother revealed that while her pregnancies were characterized by "a lack of nourishment and attention at that time," she knew "women, who have had the opportunity and good sense, to get all the nourishment and rest during pregnancy, even at the expense of something going short in the home; at the time of confinement they have got over it quite easily…"[228].

Such comments illustrate that women knew they were endangering their health and their unborn child's health by not eating sufficient food, yet they would scrimp for nine months to secure medical care during confinement and thus provide for themselves and their infant at the time of birth. They also reveal that women *were*

[226] Rowntree, *Poverty: a study of town life*, 136-137.
[227] "Healthy and strong," Maternity, 25.
[228] "Lack of food and bad housing," *Maternity*, 41.

aware of their significant dietary needs, yet they were willing to put husband and children's needs before their own, *and* were willing to put their needs for medical care above their nutritional needs. What seems to determine women's nutritional inequality and self-denial is therefore not simply the "non-perception of disadvantages" as suggested by Kynch and Sen, or the internalisation of the "theory of differential needs" based on family hierarchy as proposed by Christine Delphy.[229] Nineteenth-century working-class women knew of their *needs*. Many did not have an altered perception which made them believe that their husbands' needs were more important than their own. They knew if they did not eat well, rest, and avoid heavy labour during pregnancy, they might miscarry or suffer a traumatic confinement.

Oren and some economic historians have suggested that food is the elastic element in a household budget – not a fixed expense such as rent – and that this reality forced many women to decrease their own dietary intake when extra income was necessary for an additional child or an unexpected redundancy. However, these letters illustrate that cutting one's own intake, rather than the family as a whole, or "something going short in the home" was the preferred method, not the only option. The obvious question is this: why did so many mothers choose the option of reducing their consumption? Clearly, there are significant issues surrounding consumption and a woman's position in the family that caused this inequality in nourishment. To uncover why many women chose to reduce their consumption of food as a means of providing for other areas of personal and family necessity, one must delve into the perceptions of consumption and its relationship to familial and economic roles within the family.

[229] Christine Delphy, "Sharing the Same Table: consumption and the family," *Close to Home: a materialist analysis of women's oppression*, trans. Diana Leonard (London: Hutchinson, 1984), 46-49.

Male public status and masculinity for the nineteenth-century man in all classes revolved around issues such as independence, employment and being a good father and husband. Consumption plays a key role in understanding how the "goodness" of a father and husband, and wife and mother, was measured in the nineteenth century. A good husband was first and foremost a provider. In their work *In Sickness and in Health: The British Experience 1650-1850*, Roy and Dorothy Porter explore ideas of diet and masculinity and illustrate how providing eventually became synonymous with consumption:

> The rational-utilitarian mind of the Enlightenment endorsed a work ethic that treated man as a producer. To produce he had first to consume. The vision of man as an active consumer, whose vitality constantly needed replenishing, chimed with the emergent 'consumer society.' The stomach symbolized the material reality of man.[230]

Just as eighteenth-century England developed a work ethic which inextricably linked employment and earning to manliness, it created a strong association between masculinity and consumption. Conversely, the industrial revolution reinforced the long-standing relationship between denial or rejection of food (non-consumption) and femininity.

Women have a long, cross-cultural and cross-class history of non-consumption. The variety of countries chosen for study – India, England, France and Ireland[231] – by the economic historians mentioned at the start of this chapter illustrates the universality of females consuming less than their male counterparts. While masculinity was synonymous with consumption, during the late nineteenth-century,

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[230] Roy Porter and Dorothy Porter, *In Sickness and in Health: the British experience 1650-1850* (London: Fourth Estate, 1988), 47.

[231] Kynch and Sen, "Indian Women: well-being and survival;" Jane Humphries, 'Bread and a pennyworth of treacle': excess female mortality in England in the 1840s;" R.E. Kennedy, *The Irish: Emigration, Marriage and Fertility*; see also Rita M. Rhodes, *Women in the Family in Post-famine Ireland: status and Opportunity in Patriarchal Society*; and Olwen Hufton, "Women and Family Economy in Eighteenth-Century France."

self-denial was a common practice for English women of all classes – for them, consumption was synonymous with vulgarity.[232] In *Fasting Girls; the History of Anorexia Nervosa,* Joan Jacobs Brumberg explains how anorexia nervosa, often thought to be a modern disease of self-starvation, emerged from a long and specifically female history of fasting and self-denial. Citing the medicalisation of the nineteenth century as responsible, she argues that "During those hundred years food refusal was transformed from a legitimate act of personal piety into a symptom of disease," and claims that "the modern anorectic is one of a long line of women and girls who have used food and the body as a focus of their symbolic language."[233] For centuries, for a woman to refuse food was divine, virtuous, and feminine. Rather than being a sign of low status within the family or low importance placed on the needs of wife and mother, denial of food was a sign of femininity and inequality of consumption was largely the result of women "excelling" in their roles of wife and motherhood. When a man consumed the lion's share, he was more of a man, when a woman refused to satisfy her own appetite, choosing instead to give her food to her husband and children, she was more of a woman. In refusing to consume, she exemplified possibly the most important attribute of the nineteenth-, and possibly twentieth-century mother: sacrifice.

While financial independence meant one was a good provider and therefore a good husband and father, financial dependence was, in fact, a legal characteristic of wifehood in the nineteenth century. To be a good mother was to manage what was provided – to be "the best" at financial dependence. While reserving a portion of capital for oneself in the form of pocket money was a signifier of male status, women

[232] For more on middle-class women's self-denial, and its dissemination to the working class as a possible source for working-class women's belief that a satisfied appetite was vulgar and that food refusal was feminine, see chapter 6.
[233] Joan Jacobs Brumberg, *Fasting Girls: the history of Anorexia Nervosa*, 98 and 48.

found status as wife and mother by reserving nothing for themselves. While a husband was often subject to blind market forces which gave him a fixed salary regardless of individual effort, the effort of women to stretch the weekly pay as far as possible made an enormous difference in the standard of living of the family; this fact often made wives ultimately responsibility for the survival of the household and increased the pressure on women to sacrifice.[234] A talent for managing household accounts was an immense source of pride for nineteenth-century working-class mothers, and much scorn was directed at those women who lacked this talent. Self-denial was an intrinsic part of this duty of household management, and the better individual women performed it, the higher the regard in which they were held as wife and mother. One woman writing to the Women's Co-operative Guild tells of her mother "whom I loved with all my heart" and of her childhood memories of mother's sacrifice: "I remember many a time she has gone without food before and after confinement, and without fire in winter."[235] Of her father, she writes he "has always been in business for himself, and used to have plenty of money, but spent it on himself, and is still living at the age of seventy-four." Ultimately, she describes her father and her husband's father as those "who did not care for their wife and offspring as much as the beast of the field."[236]

Clearly, despite women's low legal status or status in the work force, within the home, their sacrifices were not the result of a low family hierarchy, but the way in which they propelled themselves to a position where they were regarded more highly by the children than the actual provider. James Bushnell, born in 1900, describes seeing a woman drop a half-sovereign on the ground when he was a child:

[234] See Layton and Mitchell, 205-206 below.
[235] "I Think a Lot," *Maternity*, 73.
[236] Ibid.

> I picked it up, whipped it in me pocket quick and run. That lady must have a lot of money, carrying half-sovereigns about with her. I thought of me mother. That'll do my mother a wonderful good turn that will…Oh, she kissed me all over. She soon went and spent most of it anyway, food for the children and meself and dad.[237]

Bushnell's tale illustrates the power of non-consumption and family hierarchy. Bushnell does not even acknowledge his mother's consumption, with her spending his gift on food for him, dad, and "the children." Rather than Bushnell perceiving his mother's non-consumption as a sign of her lesser importance or the lower status of her role as mother, it secured his loyalty to her, making her the first person he thought of when blessed with money, and, unlike the usual wage arrangements, allowing her to receive the full amount of his "earnings."

Letters and autobiographies confirm that this scenario was not unusual. Bushnell's memories challenge Oren's theory that women "concealed from their husbands the sacrifices they made to cope with the family's poverty."[238] In "The Welfare of Women in Labouring Families," Oren agrees with Peter Stearns that women's non-consumption was secret, and uses three examples of concealment in her notes from *Round about a Pound a Week* and *Maternity* as well as a quotation from Rowntree's *Poverty*.[239] These cases are, in my opinion, more the exception than the rule. Oren offers two of the four examples of women concealing their nutritional

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[237] James Bushnell, excerpt from interview no. E302, Essex Record Office, Essex Oral History Collection, in Stephen Humphries, *Hooligans or Rebels? An oral history of working-class childhood and youth 1889-1939* (Basil Blackwell: Oxford, 1981), 167.

[238] Oren, 238.

[239] Oren, 230 and 239; Oren cites Peter Stearns, "Working-Class Women in Britain, 1890-1914," 106; Reeves, *Round About a Pound a Week*, 171; and *Maternity*, 151 and 159. Critically, the example that Stearns offers to support his assertion that women hid "from their husbands the full impact of the family's poverty" is the same quotation from Rowntree that Oren later uses: "me and the children goes without dinner…and I never tell 'im." (Rowntree, *Poverty*, 84) Oren also uses an example from Reeves of a husband wasting margarine, arguing that his being unaware of the meagre portions that his children received is evident of his wife's concealing her efforts to manage their poverty. First, I feel that the attitude expressed by the York woman in *Poverty* was far from "universal" as Stearns writes and would wish to see more evidence than this single quotation. Second, a husband's ignorance of his privilege in no way conclusively implies that his wife must therefore have concealed her sacrifices. See chapter 7 below for further discussion of male privilege.

sacrifices in *Maternity*. In thirty-one of the 160 edited letters in *Maternity*, women make reference to going hungry, usually during pregnancy. Nineteen of these cases offer examples of women choosing non-consumption as an economic strategy, fifteen of which make no reference to concealment. Five of those fifteen cases describe women serving themselves the leftovers after feeding their husbands and children first: "The majority of working women do not get sufficient nourishment during pregnancy. If there is [*sic*] other children the mother generally takes what is left."[240] Many other autobiographical sources give examples of women's non-consumption by missing meals (sitting at dinner with an empty plate) or passing out their food to their children.[241] Although some women hid their sacrifices from their families (as did some husbands[242]), numerous childhood memoirs recall mothers refusing dinner or tea in plain view of their husbands. In most "respectable" families, consumption took place thrice a day at which times mothers would often serve themselves last and least. Ostentatious sacrifice and self-denial were usually on display for the family. When describing the shared mealtime experiences of the Lambeth women she surveyed, Maud Pember Reeves tells her readers that the average working-class mother prepares and stands by to serve meals but "does not attempt to eat with the family;" and Ross describes the practice many workingmen had of eating separately, to avoid the stark contrast of (and perhaps the guilt induced by) their relatively full plates compared to those of their wives and children.[243]

[240] "Lack of food and bad housing," *Maternity*, 41. The other four examples from *Maternity* are on pages 59, 73, 114 and 180.
[241] Some examples: Williamson, *Father Joe: the autobiography of Joseph Williamson of Poplar and Stepney* (London: Hodder and Stoughton, 1963), 22; and *Life as We Have Known It*, (ed.) Margaret Llewelyn Davies, 63 and 113.
[242] *Maternity*, 113 and 152.
[243] Maud Pember Reeves, *Round About a Pound a Week* (London: G. Bell, 1913; repr. London: Virago, 1979), 112; Ross, 35.

By overtly going without, women were "good mothers" and their status within the family increased. Their status also increased locally. Non-consumption secured the faith of their children, husbands, neighbours, shopkeepers etc., which aided in getting tabs, loans, and wages from those secure in the knowledge she would not use it for herself but for the good of her family. This issue will be explored further in the section on shopping in the following chapter and in chapter four.[244] Like Bushnell, many children considered their early wages the property of their parents, but specifically of their mother, believing she would not spend it on herself, but that it would eventually be spent on them. Though her father was well-loved and respected, when 8-year-old Janet Bathgate returned from a miserable first experience in service in 1812, she immediately plunked her wages down into her mother's lap. Her mother reassured Janet that although her wages would be spent on getting her older brother "decently fitted out" for a service job in Edinburgh, she would buy her a new dress as soon as she could afford one.[245] Interestingly, after giving her mother her hard-earned wages, Janet promptly distributed among her brothers and sisters the bread and cheese she had received as a going away present from her mistress. This tradition of self-sacrifice can also be seen perpetuating itself when Janet receives her first shilling, which she places in the hand of her infant brother and proudly commands her mother to "Look how rich Baby is."[246]

Therefore, if self-denial and non-consumption is a sign of feminine and maternal status, then consumption is not a viable measure of status within the family. The very high status of the mother *within* the family was not merely indicated by non-consumption, but was in fact perpetuated by it. Women were not just making a

[244] See Anna Davin for discussions of meals as a key indicator of family "respectability." *Growing Up Poor: home, school and street 1870-1914* (London: Rivers Oram Press, 1996), 71-72.
[245] Janet Bathgate, *Aunt Janet's Legacy to her Nieces: recollections of humble life in Yarrow in the beginning of the century* (3rd edn, Selkirk: George Lewis, 1895), 79.
[246] Bathgate, *Aunt Janet's Legacy*, 50.

rational, economic decision to keep their husbands employed by serving him their extra calories. Neither were they merely submitting to "male selfishness" or masculine intimidation, nor were they simply denying themselves the calories they knew they needed to keep the breadwinner "positive" or preserve his sense of masculinity. Although these factors played a role in working-class mothers' non-consumption, the inequality of nutrition was not a sign of their low status within the nineteenth-century household. Their self-sacrifice was a method of increasing status, through the feminine cultural language of food and consumption, not merely a reflection of dependence or acceptance of gender oppression. Nutritional inequality in nineteenth-century households was an active choice of mothers faced with poverty and little resources, and may have been a manifestation of their perception of reality. But this is only in the sense that to refuse food and epitomize the virtue of sacrifice was an example of working-class women seizing their victimhood and manipulating it to their perceived benefit, not of succumbing to ideas of gender inferiority.

Chapter 6

What Women Ate: Working-class Diet and Regional Variations

Before launching into alternative reasons for the unequal distribution of food in family households, it would be wise to explore the kinds of foods families were eating, how this food was distributed and the manner in which it was served, and to study regional and generational differences in diet and food distribution for clues as to why unequal consumption remained common in working-class homes well into the twentieth century. Also, a study of the regional variations in diets has the potential to supplement existing demographic literature on nineteenth-century women's mortality rates. As McNay, Humphries and Klasen have noted, regional variations in women's mortality revealed that areas with excess female mortality levels of adult women did not always correspond to areas with excess female mortality of women in younger age groups. They write, "The remaining unexplained county effects also suggest the effect of culture and traditions that followed regional demarcations independently of current economic and social context."[247] The following chapter will explore some of these cultural dietary traditions to offer a context for women's diet and unequal nutritional consumption.

One result of comfortable Victorians' near-obsession with how the poorer classes lived is the plethora of information on the diets of poor families as retrieved by social investigators and crusaders, such as the sensationalist Henry Mayhew, the more credible Charles Booth, the crusading Samuel Richard Bosanquet, the social-reforming Seebhom Rowntree and the ever-popular Maud Pember Reeves. From the late nineteenth century through the first quarter of the twentieth, these investigators

[247] K. McNay, J. Humphries, S. Klasen, "Excess Female Mortality in Nineteenth-Century England and Wales: a regional analysis," *Social Science History*, 29/4 (Winter 2005), 675.

used a variety of tactics to discover what entered the stomachs of the workers of England. Most often they collected budgets and surveys as reported by the woman of the household. Dr. D. Noel Paton went as far as weighing the refuse of each family for each week their diet was being observed in order to measure the full nutritional benefits that they were receiving from the foods listed in their weekly budget.[248]

In *Plenty and Want*, Burnett lists several of these reported budgets as examples of the food on which working families dined. As an example of the weekly consumption of the family of an unskilled urban worker, Burnett uses the budget of a regularly employed London labourer collected by Samuel R. Bosanquet in 1841. For 15s. 10d., the family purchased five loaves of bread, five pounds of meat, seven pints of porter, potatoes, tea, sugar, and butter. The remainder of week's pay was allocated for candles, coal, rent, soap, schooling and sundries.[249] Burnett remarks on the absence of vegetables, milk and the lack of funds reserved for clothing or medicine and acknowledges the close proximity to disaster in which these families lived. Such precarious existence was often toppled due to unemployment, illness, or the death of a parent, forcing families into debt, hunger, or the workhouse. Burnett also lists one of Bosanquet's budgets of a skilled London worker making 21s. per week; similar to that of the labourer but including more meat and bread, coffee, bacon, onions, greens or turnips, herrings, and items such as starch, soda, and snuff.[250] To give an idea of the types and amounts of food consumed later in the century, Burnett creates a table based on the figures submitted by Dr. Edward Smith in a report to the Privy Council

[248] D. Noel Paton, *Poverty, Nutrition and Growth Studies of Child Life in Cities and rural Districts of Scotland*, Privy Council; Medical Research Council special report series No. 101 (London: H M Stationery Office, 1926), 149-150.
[249] Burnett, 68.
[250] Burnett, 67.

in 1863 representing an estimate of one week's diet for agricultural labourers and indoor workers:[251]

	Agricultural labourers	Indoor workers
Bread	12 1/3 lbs.	9 ½ lb.
Sugar and treacle	7 1/3 oz.	8 oz.
Butter, dripping, suet	5 1/2 oz.	5 oz.
Bacon and meat	1 lb.	13 ½ oz.
Milk	1 ½ pints	1 pint
Cheese	5 ½ oz.	–
Tea	½ oz.	¾ oz.

Burnett argues, convincingly, that the agricultural workers and low-level industrial workers (shoe-makers, stocking weavers, etc.) on which these figures were based, were basically consuming the same staple foodstuffs in the same amounts as they were "at any time earlier in the century," and that it was not until the 1870s that a combination of cheaper imported meats and grains (although the Corn Laws had been abolished in 1846, advances in farming and transportation started creating a significant reduction in the price of imported wheat only in the 1870s), and ultimate effectiveness of the gradual lowering of food tariffs due to Peel's Free Trade Budget of 1842, led to increasingly better nutrition among the British working classes.[252]

Despite the extensive work of Burnett, Oddy and Miller on nineteenth-century diet, the criticism levied at Burnett by feminist historians for either ignoring the inequality of resource distribution, or for assuming it to be efficient and not pursuing its implications, is valid. While Burnett does write about the unequal consumption of food by women, a phenomenon, he writes, which was first noted in 1863 by Dr Smith, he makes no effort to determine women's nutritional intake. Despite giving examples of Smith's meticulous cases of daily food intake meant to illustrate regional and

[251] Burnett, 129.
[252] Burnett, 132-3.

economic variances, which contain clear statements such as "Lincolnshire…*Dinner* – meat for husband only; others vegetables only" and "Wiltshire…*Dinner* – husband and children have bacon (sometimes), cabbage, bread and butter. Wife has tea," Burnett continues to make claims about "average" nutritional intakes. For example, Burnett writes, "Meat was, in fact, a luxury in the labourer's diet. Each adult consumed on average only 16 oz. each week," but half a page later claims, "what was left [of the Sunday roast] was reserved for the husband…his wife and children subsisting essentially on bread and potatoes."[253] Although Burnett is presenting a history of the diet of the "average" English working adult, it is clear that there can be no average "adult" if fifty percent of the adults are not sharing equally with the other 50 percent. For an average of 16 oz. to appear could mean that men were eating perhaps 21 oz per week, and their wives 11 oz (not unlikely if the men were getting all of the Sunday dinner leftovers). To say that the average male adult ate more than 16 oz of meat per week, and the average adult female ate significantly less would be far more accurate.

There is little excuse for this as many budgets and dietary investigations, including some from S. R. Bosanquet in 1841 and Smith in 1863, some from Rowntree and Booth, and those collected by Dr. Paton and Maud Pember Reeves at the start of the twentieth century, were explicitly detailed enough to illustrate the nature of the differential serving in the home and give an idea as to the average female intake. Clearly, Burnett adopted the attitudes of previous investigators, to discover what labourers (i.e. male) were eating as they were seen to be driving the economy, and to merely report that women ate less. The budgets collected by Maud Pember Reeves between 1909 and 1912 in particular have been used both by Laura Oren and

[253] Burnett, 161.

Ellen Ross to show examples of women purchasing and preparing special foods to be consumed solely by their husbands. In a meal plan given to Reeves at the start of the twentieth century, Mrs. X, a Lambeth housewife revealed that she fed her husband an additional dish at every meal.[254] For example, for Tuesday tea, while the rest of the family dines on bread, marmalade and tea, Mr. X receives fried fish and potatoes. On Wednesday, Mr. X has corned beef for breakfast, boiled bacon for dinner and cold bacon for tea, while his family has boiled bacon only for dinner. For Sunday breakfast, Mrs. X feeds her husband bread, butter, and tea with milk and sugar like the rest of the household, but he also receives an additional plate of kippers.

An investigation into the similarities and differences between these budgets and the memories and recorded details of those who wrote autobiographies, letters, or who allowed themselves to be interviewed at the start of the twentieth century is necessary for two reasons. The first: several historians reviewing Maud Pember Reeves' work have expressed scepticism, questioning how often budgets given to social investigators reflected actual food expenditure and how frequently they were "padded" by women afraid of being judged as poor domestic managers.[255] The second concern with this traditional evidence of working-class diet is that it often gives no indication of who ate which foods, with the exception of the male head of the household, or in what quantities the foods described were consumed by the other members of the family. First-hand accounts, by the women themselves or by their children or husbands, can give insight into how mealtimes unfolded in households explaining, for example, who ate the most, how portion size was restricted, which foods were family favourites and which were reserved for the father, how serving practices varied from family member to family member, and if the general tone of the

[254] Reeves, 113-114.
[255] Ross, 43.

meal was one of tension or joviality. Such information not only provides a greater understanding of what working-class mothers put into their mouths, but also begins to illuminate why women permitted their husbands and, and sometimes their children, to eat more food at their own expense and the expense of future generations.

What did the women eat?

Regarding what women ate, Oddy quotes Charles Booth: "a good deal of bread is eaten and tea drunk especially by the women and children."[256] Since the "tea three times a day, sop, bread and treacle" quotation, uttered by a butcher from Brigg in 1843 and presented by Burnett as the diet of nineteenth-century women in agricultural communities, caused such a stir among historians, it is perhaps the best point from which to start an investigation into women's diet.

Bread

The undeniable staple of the nineteenth-century working classes was bread. Dr. Smith acknowledged this in 1863, estimating that of the 370 families he investigated, 30% purchased bread from a baker, 50% both baked and purchased, and only 20% ate entirely home-baked bread. According to Burnett, bread consumption reached an all time high of 2 lbs. per head per day, as estimated by the agricultural scientist Dr. R. N. Salaman (again, this was the average level of consumption – meaning women likely consumed more than this as a substitute for protein foods), and then began to decline from 1879. By 1881, more money was being spent on meat than on bread (based on the average of the total expenditure of the population).[257] Ellen Ross points out that although *per capita* bread sales ceased to rise after the 1870s, the centrality of bread in the working-class household diet, especially in the diet of

[256] Oddy, *The Making of the Modern British Diet*, 220.
[257] Burnett, 130-32.

working-class children, can be illustrated by a study done in 1881 by the British Association for the Advancement of Science, according to which bread constituted the second highest household expenditure (after meat), and Charles Booth's London budgets showing "an estimated 6.5 pounds of bread eaten per person each week, but only 1.6 pounds of meat."[258] Regarding the diet of working-class children, Maud Pember Reeves wrote, "Bread, however, is their chief food. It is cheap; they like it; it comes into the house ready cooked; it is always at hand, and needs no plate and spoon."[259]

Bread seems to have played almost as great a role in working-class diets earlier in the nineteenth century. In fact, it would appear that it made up a greater percentage of men's diet in the early to middle part of the century. Descriptions of Regency life collected by Alfred Fryer from Wilmslow and neighbouring villages (where the inhabitants were mostly weavers, miners and tenant farmers) show that wheat bread was king in the hierarchy of starches. While oat-based foods and potatoes were eaten, and enjoyed, more frequently than they were in urban areas and later in the century, bread was still the staff of life, so much so that its lack was remembered as a particular hardship. Bridget Earnshaw, born in 1800, recalled:

> I can never forget the bad harvest when the flour could not be made into loaves, but was baked in thin cakes, and 'welly boiled on the backstone.' The distress in Wilmslow was very great, and the gentry in the district subscribed a fund to buy potatoes, oat meal, bacon and peas, which were distributed from the Old Shed in Church Street."[260]

[258] Ross, 48.
[259] Reeves, 97.
[260] Bridget Earnshaw, in Alfred Fryer's *Wilmslow Graves and Grave Thoughts from Wilmslow* (Stockport: Swain and Bearly Printers) 1886, 94.

Benjamin Johnson, born in 1810, similarly remembered the wheat blight: "I recollect when the flour was so unsound it could not be made into loaves, and my mother made it in cakes upon the backstone, but it rose up in blisters."[261]

The depression of 1813 also caused significant distress in this community. Andrew Whittaker, another Wilmslow inhabitant, told Fryer: "Times were very bad in 1812 and 1813. The people mostly lived on potatoes, barley flour and oatmeal."[262] It is difficult to say if the scarcity of bread signified a true economic disaster. While Ross writes that in London near the end of the nineteenth century, "bread became nearly the exclusive food when households were in great poverty," those from poorer families who spoke to Fryer seemed to have survived the whole of the Regency era on bread alternatives. One man responded: "My father died when I was seven years old…my mother was a very independent woman, and wouldn't ask nobody for nothing…we lived on potatoes and buttermilk and porridge,"[263] indicating that there were affordable alternatives for supplying daily carbohydrate requirements (and also that bread was not the sole staple of the poorest of the poor which is what made the Irish potato famine so dire, and what would have made a bad harvest in Wilmslow a true crisis). It is possible that when bread was not available, there were not enough of these alternatives to go around, which would explain why the gentry stepped in to supply potatoes and oatmeal during the wheat blight. But still, bread availability seems to have been the gauge by which average poverty was differentiated from extreme poverty, either signifying a time of serious economic hardship, or as causing

[261] Benjamin Johnson in *Wilmslow Graves*, 97. Based on the description of the flour offered by Johnson and Earnshaw, I believe the wheat harvest they describe must have suffered from Fusarium head blight, a fungal disease caused by *fusarium graminearum* in which flour produced from the infected wheat is darker than usual and, when made into bread, does not rise normally. See Dexter, Clear and Preston, "Fusarium head blight: effect on the milling and baking of some Canadian wheats," *Cereal Chemistry* 73/6 (1996), 695-701; and Goswami and Kistler, "Heading for disaster: Fusarium graminearum on cereal crops," *Molecular Plant Pathology*, 5/6 (Nov 2004), 515-525.
[262] Andrew Whittaker, in *Wilmslow Graves*, 98.
[263] Benjamin Johnson, in *Wilmslow Graves*, 96-97.

such a deviation from the normal diet that its lack of abundance imbedded itself in the memories of workers as a period of significant suffering.

As the century progressed, and purchasing this staple from a bakery grew in popularity, critics such as William Cobbett and Eliza Acton (social investigator and pre-Beeton domestic authority, respectively) railed at the decline of home-baking among the working-classes. Acton was particularly disturbed by this trend because of newly-revealed reports of insanitary conditions in professional bakeries, and the troubling descriptions of bread adulteration in the publication of *A Treatise on Adulterations of Food and Culinary Poisons*, which detailed the addition of chalk and alum to whiten flour. Critics also began to proclaim the health drawbacks of consuming white over brown bread after the development of porcelain rollers for milling flour after 1870. Once commercial bakers began selling white bread, harping on about the health benefits of brown bread as opposed to white went in and out of fashion (just as in the twenty and twenty-first centuries).[264] However, the deficiencies and ill health caused by removing the protein and minerals contained in wheat bran from this dietary staple, as well as regularly ingesting adulterated bread, may have been considerable, especially taking into account the vulnerable nutritional state of the majority of working-class women and children and the sheer volume of bread they consumed.[265] The question of bread adulteration, and later the mass consumption of white bread, made reformers see the decline in homemade bread as an increasingly dangerous neglect of working-class duties.[266] Several of their more sympathetic

[264] Gratzer, 100-101; and Burnett, 139-141.
[265] For impact of bread adulteration on health, see Burnett, 118-119; and Fredrick Accum, *A Treatise on Adulterations of Food and Culinary Poisons* (Philadelphia: A. Small, 1820), 106. Historian Mary K. Matossian has even written about the possible positive impact of white bread on mortality rates. As wheat flour became cheaper and more available, Europeans consumed less rye, thereby reducing deaths and miscarriages from ergotism, or St Anthony's Fire. See "Mold Poisoning and Population Growth in England and France, 1750-1850," *Journal of Economic History*, 44 (1984), 669-686.
[266] William Cobbett, *Cottage Economy*, 49-69; Accum, *A Treatise on Adulterations of Food and Culinary Poisons*, 98-110. For more information about adulteration, see Jim Phillips and Michael

contemporaries, and Burnett as well, viewed this decline as being the result of the scarcity and expense of fuel, explaining why home-baking persisted in parts of the North where coal was available cheaply.[267] Its persistence in Wales and Scotland may also be explained, in part, by the availability of peat. Although Wales was particularly affected by the General Enclosure Act of 1845,[268] common land was still available from which the poor could glean peat during the latter part of the nineteenth century. When interviewed in 1960, Mr. Morrice, born near Llangwyryfon, Ceredigion (Cardiganshire), explained that his family would buy peat for their oven, or purchase land and harvest it themselves. The peat to which he referred was not bog peat, but "mountain peat," which Morrice claimed burned better when dried. According to Morrice, "Only the poorest cut their own bog peat."[269] Aside from its inferior burning properties, and the possible social stigma attached to cutting one's own bog peat, the availability of such fuel to even the poorest allowed them to cook a variety of breads, and the option of not having to waste precious income on coal or wood, no doubt contributed to the strong baking tradition of South Wales which lasted until the 1940s.

However, it was Rowntree who surmised another significant reason for the decline in domestic bread-baking: the lack of ovens produced by urbanisation and changes in agricultural housing.[270] Regarding London accommodation, Ellen Ross reminds her readers that many of the flats housing working families were grand homes converted into one- or two-room dwellings that contained a fireplace or grate never intended for cooking purposes, and both she and Oddy credit Maud Pember

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French, "Adulteration and Food Law; 1899-1939," *Twentieth Century British History*, 9/3 (1998), 350-369.

[267] Burnett, 18-19.

[268] John Chapman, "The Later Parliamentary Enclosures of South Wales," *Agricultural History Review*, 39/2 (1991), 116. See 134 below for more information on the differences between the effects of enclosure in Wales and England.

[269] Mr. Morrice, interviewed by Doreen Jones, 1960, Museum of Welsh Life, LL1016.

[270] Rowntree and Kendall, *How the Labourer Lives: a study of the rural labour problem* (London: Thomas Nelson and Sons, 1913), 40.

Reeves for her sensitivity to the struggles of working-class cookery and for presenting this concept to middle-class readers.[271] Ross offers this as one reason, as well as the lack of fresh water accessibility and the late introduction, and expense, of gas stoves, for the popularity of grilling and frying by London mothers, and the spurning of most of the "economic" soups and stews suggested in pamphlets directed at the working class.[272] The same was true in other British cities, and once a generation grew up enjoying its mothers' grilled, fried and shop-purchased meals, it was unlikely that they would revert to the traditional and regional cookery practiced before the family migrated. In 1964, a first-generation Londoner recalled her preference for London meals to the Welsh diet of her parents: "The beef-dripping for breakfast and celery and radishes for tea, which every working-class Londoner knows never appear on Llan tables." Of the food in Merioneth, she writes, "The diet is poor and monotonous and is relieved only by 'tins for visitors'."[273] Similar circumstances were to blame, at least in part, for the decline in home-baking. Rowntree noted that newer houses had ovens that were too small for a week's worth of baking, and burned fuel inefficiently as well, and also that by 1913, ovens were rare even in rural homes.[274] Hannah Mitchell describes the changes in her cooking conditions after moving from Bolton in Lancashire to Newhall, Derbyshire:

> The village women were excellent thrifty housewives, who taught me much in the way of household lore. They were adept at pickling, preserving and making wines – orange, parsnip, rhubarb were among their specialties. Unlike Lancashire women, however, they did not bake their own bread. In consequence, I found myself somewhat famous, because I made small crusty loaves, and sweet 'ovenbottom cakes' in the small oven which was so different from the huge side ovens then so common in

[271] Ross 49 and Oddy, *The Making of the Modern British Diet*, 217.
[272] Ross, 49-50.
[273] Trefor Owen, foreword, in S. Minwell Tibbott's *Domestic Life in Wales* (Cardiff: University of Wales Press, 2002), xi.
[274] Rowntree and Kendall, *How the Labourer Lives*, 40.

> Lancashire and Yorkshire.[275]

Mitchell was a remarkably intelligent, resourceful woman who also felt pressured by her sister-in-laws to cook traditional meals for her husband. While she was not deterred from bread-making in some capacity by the absence of a familiar oven, it is a distinct possibility that many women were. And just as with other traditional foods, once inadequate baking facilities forced women to supplement, or supply their family's entire bread needs through purchasing a uniform, attractive product from a baker, there was a chance their children would prefer the taste of the mass-produced variety, and that their daughters would not grow up to bake for their own families.

The question of domestic familiarity with cooking facilities and its impact on the cooking styles of working-class women throughout the century was one of enough significance to spark debate in councils charged with housing provision at the very end of the nineteenth century and the start of the twentieth. Nigel Alan Robins writes in *Homes for Heroes*:

> Up until 1919, the provision of working-class housing had been an exclusively male preserve. In 1908, the Housing Committee debated on the style of kitchen range to be fitted in the new houses at Baptist Well. The deliberations were an all male affair, even though the choices to be made were likely to affect the women of the household more.[276]

That men were likely to make decisions affecting women's quality of life comes as no surprise, considering both the scarcity of women in roles of political power at the turn-of-the-century and the general attitude of middle-class social do-gooders: that they knew better than working-class housewives the ins-and-outs of domestic management. A Women's Advisory Committee on Housing was later appointed, and Robins writes:

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[275] Hannah Mitchell, *The Hard Way Up* (London: Faber and Faber, 1968), 109.
[276] Nigel Alan Robins in *Homes for Heroes: Early twentieth-century council housing in the county borough of Swansea* (Swansea: Swansea City Council, 1992), 74.

> In March 1920, the Women's Committee suggested that various designs of closed range be examined, because they were more economical of fuel, and provided more space for boiling saucepans and general cooking purposes. The wisdom of this idea must have been apparent to anyone who had to run the domestic affairs of a house. However, in reply, the Housing Committee stated that, in their opinion, "tenants much prefer the Yorkshire open range to a closed range."[277]

Of course, one cannot be sure if Robins and the Women's Committee were correct, and that the closed range would have been a change welcomed by working women for its efficiency, or if the Housing Committee was, in fact, being sensitive to the desire for familiarity by not making high-handed changes. In fairness to the Women's Committee, its suggestion would have saved the tenants money and might have encouraged the bread-baking and long-cooking economical stews that health workers were always promoting. Coal was expensive, and a high temperature must be maintained for continuous combustion (hence the necessity of firegrates to hold the coal together so it would burn more efficiently). Open ranges were notoriously inefficient – the heat escaped up the chimney with the smoke, and more coal had to be added constantly to generate enough warmth to keep the fire from extinguishing. Not only were closed ranges more efficient, but they were cleaner as well. Eveleigh writes, "Food was no longer in contact with the grime of fire. Pots and pans were no longer blackened by soot and, being protected from the strongest heat, they lasted longer." [278] However, it must be remembered that this innovation increased women's workload in other ways, closed ranges requiring the more frequent and complicated cleaning procedures of black-leading and polishing.[279] As for purely cooking-related preference, oral histories reveal a mixed loyalty, even into the twentieth century and

[277] Robins, *Homes for Heroes*, 80.
[278] David J. Eveleigh, *Firegrates and Kitchen Ranges* (Princes Risborough: Shire Publications, 1983), 3 and 23-25.
[279] Ruth Schwartz Cowan, *More Work for Mother: the ironies of household technology from the open hearth to the microwave* (New York: Basic Books, 1983), 61-62.

within the same region. Of her mother's open range, Nellie Farrow (born in Burnham-on-Crouch, Essex, in 1905) only complained to her interviewer that, "the soot would fall down the damn chimney, and you'd go [*makes blowing noise*] blow the lid off, but that never went inside the black old kettle."[280] Arthur Went's mother (from Crockleford Heath, near Colchester) seems to have preferred the closed range:

> She had a cooking stove in our coal cooking range. A closed-in one, see. Well, some of 'em had what we call an old register stove which was fairly open. And I know mum did at one time, until she had a range put in. And of course, you stood your big old boilers, and kettles and saucepans on there and, gosh, they got as black as your hat! But you had to have some good food there though at any rate.[281]

Regarding the choice of the open range for the Swansea council houses, it seems that if the Housing Committee was, in fact, merely stating its opinion, then no one had ever bothered to consult the women who lived in the housing estates themselves about which type of range they would prefer. One can see how easily traditional dishes and cooking methods might be lost or altered when those performing the tasks have little control over their domestic surroundings and equipment.

By the time Hannah Mitchell moved to Newhall in the 1890s, the home-baking of those loaves eaten at every meal remained a strong tradition mostly in the north of England, parts of Scotland and rural Wales. However, the baking of bread in some capacity, such as the bi-weekly creation of flat cakes, especially those made with oats, barley or potatoes, and which could be made on a griddle, in a dutch oven, or even directly on the stove, rather than in a wall oven, seems to have remained stubbornly popular in many parts of the country well into the twentieth century. Nellie Farrow remembers, "beautiful scrap cakes" made out of leftover pork fat.[282] Mr. Morrice described the "oven," used by his family for flatbreads, small cakes and tarts,

[280] Interview with Nellie Farrow, Essex Record Office, Essex Sound and Video Archive, SA/29/12/1.
[281] Interview with Arthur Went, Essex Record Office, Essex Sound and Video Archive, SA/8/1881/1.
[282] Interview with Nellie Farrow, Essex Record Office, SA/29/12/1.

as being an iron pot shaped like a cauldron with a lid. The oven would be placed in the fire, and hot peat would be heaped on top of the lid to bake the top and bottom at once.[283] Dutch ovens were also used for making flat loaves and cakes.[284] The portability and convenience of the utensils on and in which such breads were baked might be one reason for the sustained popularity of small oat and barley cakes and breads, in spite of the fact that wheat and oatmeal prices were comparable by 1863.[285]

However, it seems that in their efforts to refute accusations of laziness and indifference often levied upon Victorian and Edwardian working-class wives, nineteenth-century reformers of socialist persuasion, revisionist and post-revisionist historians are all guilty of evading a simple truth about the evolution of bread-making and bread consumption that deserves to be addressed. For the majority of poor women, baking was merely another manifestation of drudgery that, when made even marginally economically unviable, was shelved. The convenience of purchasing bread and its role in the death of home-baking should not be underestimated. The labour-saving value of the local baker was extraordinary. For those families that continued baking for themselves, the process went something like this: "once a week, we used to make about 30 loaves. We had a brick oven, not outside, in the scullery." Mrs. Rose, born in 1882**,** described baking day to her interviewer as hard work, making wood faggots for fuel, bringing the water up from a well via a pump, kneading the dough in wooden troughs and using "half-sacks of flour at a time" before shaping and baking thirty loaves for "an hour and five minutes."[286] It was hot, messy work. At the risk of stating the obvious, there were no dials to set the temperature. In *The Kitchen in*

[283] Mr. Morrice, interviewed by Doreen Jones, 1960, Museum of Welsh Life, LL1016.
[284] S. Minwell Tibbot and Beth Thomas, *A Woman's Work* (*O'r Gwaith I'r Gwely*) (Cardiff: National Museum of Wales, 1994), 16-17.
[285] Burnett, 160.
[286] Interview with Mrs. Rose of Polstead, "Life of as Farmer's Daughter before 1900," interviewed by Basil Slaughter, Essex Record Office, Essex Sound and Video Archive, SA/17/797/1.

History, Molly Harrison quotes an American cookery book published in 1845 to describe the method used for regulating oven heat before automatic controls: "For pies, cakes, and white bread the heat of the oven should be such that you can hold your hand and arm while you count to 40; for brown bread, meats, beans, Indian puddings and pumpkin pies, it should be hotter, so that you can only hold it in while you count to 20."[287] Several Welsh women complained about singed arms as a casualty of baking day.[288]

By the late nineteenth century, as a result of having no home oven, many urban families were bringing their Sunday Dinners to the local baker and paying a small fee to use the oven for roasting their meal. Bringing uncooked loaves of bread to the baker on a weekly basis would have made a difficult chore yet more difficult and illogical. When the alternative was burning oneself to produce the perfect loaf, the decision to purchase bread was an attractive one that also made economic sense in terms of the labour and fuel. The senselessness of continuing to bake a week's worth of bread at home had even been recognized (if possibly exploited) by the Women's Co-operative Guild. In a paper delivered at the Annual Meeting at Leicester in June of 1893, Catherine Webb proposed expanding the Cooperative bakeries developed by the shops in the midlands, Scotland and the South, and declared:

> While our Lancashire and Yorkshire ladies are proud, and justly so, of their beautiful home-made bread, all of them will admit, I think, that the making of it adds greatly to the burden of a woman's domestic life, especially if the family is large or the health not good. To suggest that they should exchange their wholesome homemade loaf for bread made under any of the loathsome conditions recently exposed in the public press would be but an unkind service. Experience has proved, however, that cooperators have the power, the means, and *the will* to secure perfect wholesomeness in the manufacture of this important article, and I put it to you, is it necessary with

[287] Molly Harrison, *The Kitchen in History* (New York: Scribner's Sons, 1972), 104.
[288] Tibbot and Thomas, *A Woman's Work*, 105.

> this potent means of lessening household work before you, to go on any longer, inflicting upon yourselves for the sake of an old-time prejudice, the drudgery of the weekly or bi-weekly bread making?[289]

Unfortunately, the Women's Cooperative Guild was rather unique in their attempts to lessen the workload of working-class women. It cannot be emphasized enough how contrary this attitude was to the thrust of domestic reform in England at the end of nineteenth century. As discussed in Chapter 1, most policies on health and nutrition were directed at "educating" working-class mothers to be better cooks and domestic managers.[290] Even sanitary legislation was brought down to the micro level, with policy-makers blaming working-class women for persistent public health problems (such as the stubbornly high infant mortality rate), accusing them of not maintaining adequate levels of cleanliness in the home. Rather than providing additional pumps and sewers, legislators blamed working-class squalor for cholera outbreaks; health visitors and charitably-inclined middle-class ladies brought soap to poor families, and the theory of miasma (that ill-health was caused by damp and bad smells) made it implicit that the health of families depended on *increased* women's work: more cooking, more scrubbing, more efforts to make things smell pleasant.[291] The attitude that lessening a working-class woman's workload was morally questionable was detrimental to female children as well, as many were regularly kept home from school to help with domestic labour: Mrs. Rose told her interviewer that she would cry because she was made to stay home from school on baking days.[292] The idea that

[289] Catherine Webb, "Improving the conditions of domestic life" delivered June 13, 1893, Women's Cooperative Guild, LSE, Coll. Misc. 268, vol.1 MF 69.
[290] See Jane Lewis, *The Politics of Motherhood*, and Elizabeth Petty, "The Newer Knowledge of Nutrition."
[291] Joel Mokyr even argues that this trend escalated as germ theory supplanted belief in miasma, placing more responsibility for family health on women and increasing their workload by creating unprecedented standards for cleanliness. See, "Why was there more work for Mother? Technological Change and the Household 1880-1930," *Journal of Economic History*, 60/1 (March 2000), 1-40.
[292] Elizabeth Roberts, 34; Mrs. Rose of Polstead, interviewed by Basil Slaughter, Essex Record Office, SA/17/797/1.

lessening women's household labour – thus allowing them to spend more time educating themselves and their children, minding their infants, or engaging in a leisure activity – could have wider social benefits was *exceedingly* rare and largely grew out of working-class institutions. Also, the notion that the working class had a right to leisure purely for leisure's sake was not put forth or defended by the superior classes, but singularly championed by the workers themselves.[293] A close reading of the secondary historical literature on leisure reveals this bias affected the tone of historians for a century to follow,[294] causing them to shy away from reasons such as the rise in the value of human labour, the modern progression towards increased leisure-time, the wisdom of "working smarter, not harder" etc. for the decline of bread-baking, and to point instead at the Enclosure Acts, expensive fuel and poor cooking-facilities as the factors responsible for the change in domestic cooking arrangements as if they were invested in establishing the integrity of Victorian working-class women by middle-class Victorian standards. These writers have been inadvertently operating within the moral framework of nineteenth-century middle-class critics and it has influenced their telling of working-class history. They have ignored the human capital involved in bread-baking. While experiments with cooperative cooking did poorly, the Co-op continued to expand its bread marketing, for the reasons that were best expressed by Catherine Webb in 1893: baking was drudgery and a wholesome alternative became available at prices that made economic sense, in terms of money and labour investment.[295] To say that other factors were

[293] See Hugh Cunningham, *Leisure and the Industrial Revolution* (London: Croom Helm, 1980) for descriptions of the relationship between increased working-class leisure time and "opportunities" for self-improvement, and the development of the working-man's club from a space of imposed social control and "personal betterment" to one meant for enjoyment and entertainment.
[294] For example, Drummond and Wilbraham, Burnett, Oddy, and Ross.
[295] Catherine Webb, Women's Cooperative Guild Collection LSE, Coll. Misc. 268 vol.1 MF 69. In her address to the Guild in 1893, May, who believed that co-operative kitchens would be the natural progression from cookery schools for the poor, championed an experimental cooperative cooking kitchen in Philadelphia, which was ultimately unsuccessful.

responsible without acknowledging this primary reason would be similar to saying twenty-first century women would continue doing all the laundry by hand if only big enough washtubs were still manufactured.

Tea

As Burnett describes, tea, prohibitively expensive for the working classes at the start of the nineteenth century was by the 1890s the national drink – cheap enough to be included in *almost* the poorest of budgets, and one of the four items consumed religiously by the female population of the working class. In the 1904 *Report of the Inter-departmental Committee on Physical Deterioration*, investigators described the way in which the tea of working-women was prepared. Unlike earlier in the century, when leaves were steeped briefly, then dried and re-used, the tea of households at the turn of the twentieth century was brewed in pans of hot water, in which leaves were steeped for hours allowing for a strong tea even if the leaf-to-water ratio was less than ideal. The resulting beverage was met with disapproval by the doctors reporting to the committee, as well as the frequency with which it was drunk:

> Dr Hawkes' experience of female workers employed in factories and workshops in Finsbury pointed to the same abuse of tea. In the case of many of these, tea is the only thing consumed before starting to their work from places in remote parts of the suburbs. During some years' work at a large Metropolitan Dispensary, he found that 80 per cent of woman and girls who came under his notice never touched solid food till the middle of the day: pickles and vinegar were then often the staple of the "solid" meal with tea, and then tea again in the afternoon; three or four pints of "tea poison" being thus absorbed in the course of the day. An enormous amount of dyspepsia is thus set up, which rapidly assumes acute forms, with the result that alcohol, at first taken to allay pain, is frequently the final refuge.[296]

[296] Dr. Hawkes, *Report of the Inter-Departmental Committee on Physical Deterioration*, Parliamentary Papers, vol I, Report and Appendix 1904 (Cd. 2175) xxxii. 233, 41.

In the 1840s when the butcher from Brigg told Poor Law investigators that women were drinking tea three times a day, they were most likely swallowing a weak concoction. Ellen Mottram born in Morely described how tea was made in her family before 1846: "In my father's family, we had one pound of sugar and one ounce of tea weekly, and the tea was kept in a kind of little snuffbox. I well remember how carefully my mother took out the little pinch that had to serve for a meal."[297] Besides its prohibitive cost, another likely reason tea was drunk lightly brewed in the first half of the nineteenth century was the dearness of sugar. Burnett writes that many poor families drank tea without sugar or milk, and that this was a reason coffee was never as popular as tea among the working-classes: "partly because it needed more preparation and partly because it was less palatable without the addition of sugar or milk."[298] Aside from the extra expense of equipment, milk and sugar, Brian Cowan writes in *The Social Life of Coffee* that as early as 1717, the price of tea declined as the East India Company was able to regularly supply the British wholesale market with tea directly from China. Whereas the Dutch and French vigorously pursued coffee cultivation in the East and West Indies, in the British West Indies, by contrast, valuable coffee-growing soil was instead used for sugar cane, the preferred cash crop. Cowan writes:

> As a result of this situation, British tea developed an increasingly significant price advantage over coffee in the eighteenth century. By the end of the century, tea was cheap enough to be regularly drunk by the working classes as well as the rest of society. Coffee was not exorbitantly expensive, but it had clearly been displaced by

[297] Ellen Mottram, in Alfred Fryer's *Wilmslow Graves and Grave Thoughts from Wilmslow*, 92.
[298] Burnett, 162. When comparing the popularity of tea versus coffee, expense should be considered as well. According to Drummond and Wilbraham, tea imports rose exponentially from 1700, and the price of tea decreased steadily. During this period, coffee, chocolate and cocoa were much more expensive. 203-205. One could argue that the eighteenth century was when the working-class attachment to tea formed, and that when the price of coffee did drop it was too late to make a dent in the rate of English tea consumption as the taste for tea and a tradition of its being drunk had already been established.

tea as the caffeinated drink of choice.[299]

More than a drink, tea was a staple food item – it often served as a milk substitute when the only available alternative was water. Matthew Henry Sheffield grew up in a mining family of seventeen near Leicester and remembered: "For breakfast…before we went to school…we got extra big cups and we used to toast some bread. And we used to put the bread into the cups, sugar on top, and then pour tea on it and that was our breakfast [*laughs*]. There were no cereals then."[300] Miss Potter from Wanstead, Essex also recalled eating this tea-based dish as a child:

> When I used to stay with my Grandparents before they went to work in morning. My Granny would put on the table as many basin as was needed fill them with bread sprinkle with sugar then make a large pot of tea when brew pour over each basin that was there [*sic*] breakfast…[301]

Burnett remarks that "Tea was also essential [to the urban worker's diet] because it gave warmth and comfort to cold, monotonous food," and that it "made many a cold supper seem like a hot meal."[302] The sentiment that tea made a hot meal out of cold bread-based meals has been echoed by other historians, and may partly explain why women, denied the cooked protein elements of a meal, drank so much of it. Interestingly, while historians Ellen Ross and Brian Cowan largely attribute the popularity of tea and coffee to the stimulating effects of caffeine and its ability to make one feel energised in spite of undernourishment, no social historian has seriously addressed the addictive qualities of caffeine as a reason for the extraordinary level of tea consumption as a staple in the nineteenth century.[303] However, there is evidence that caffeine's effects as a stimulant and its addictive qualities are heavily

[299] Brian Cowan, *The Social Life of Coffee: the emergence of the British coffeehouse* (New Haven, CT: Yale Univ. Press, 2005), 75-77.
[300] Interview with Matthew Henry Sheffield, Record Office for Leicestershire, Leicester and Rutland, Mantle Oral History Project, MA200/032/032.
[301] Miss Potter, "My Mother and Father," Age Concern Essay Competition, 1963, Essex Record Office, T/Z 25/480.
[302] Burnett, 54, 38.
[303] Ross, 41; Cowan, *The Social Life of Coffee*, 33.

responsible for the increasing consumption of tea.[304] To say that tea consumption increased because the price of tea decreased as the nineteenth-century progressed is fine,[305] but the effects of caffeine could better explain why it found such favour among working-class women to begin with, and why women drank so much more of it than men.

Tea-drinking can be seen as just another example of upper and middle-class traditions trickling down to the classes below, or one could ask why this drink became so popular, specifically why it became appropriated by the working-classes as *their* drink when other drinks were rejected as a matter of class pride. For example, S. R. Bosanquet chastises his readers in 1841 for forgetting that the poor consumed beer and gin because the price of wine put it well beyond their reach,[306] but unlike tea, the working class continued drinking beer and porter instead of consuming progressively more claret or port as the price dropped over the course of the nineteenth and twentieth centuries. Beer is still considered to be a "hard," working-class drink, along with whiskey, while wine, cocktails, and alco-pops are viewed as tipples of ladies, toffs and teens.[307] While working-class women deeply resented being told how to cook, clean and raise children and the high-handed intervention by middle-class ladies and the government, part of being respectable meant emulating one's "betters." After home-brewing died out in the first quarter of the nineteenth century, and drinking alcohol became an increasingly male and non-domestic activity, women needed an alternative drink for themselves and their husbands. Urban water was never of the best

[304] Luc J.C. van Loon and Wim H. M. Saris, "Dietary Consideration for Sport and Exercise," *Human Nutrition*, ed. Catherine A. Geissler and Hilary J. Powers (11th edn, Edinburgh: Elsevier Churchill Livingstone, 2005), 357; Roland R. Griffiths *et al.*, "Caffeine pharmacology and clinical effects," *Principles of Addiction Medicine* (Chevy Chase, Maryland: ASAM, 2003), 200-201, 211-212.
[305] Burnett, 53.
[306] S. R. Bosanquet, *The Rights of the Poor or Christian Almsgiving Vindicated*, (London: J. Burns, 1841), 61.
[307] The class associations with different drinks formed in the nineteenth century still persist in the UK. In 2001, I was initially denied a Tia Maria and orange by a barman in York on the grounds that it "sounds like a posh drink" and was offered a pint of Tetley's bitter instead.

guaranteed quality and boiling it and adding tea leaves, apart from the bonus of purification, made it taste better. Milk was less available by the middle of the century and drinking alcohol became less and less reputable following the appearance of the temperance movement in the 1830s, especially for females.[308] Historian Martin Wiener has argued that the decreasing public tolerance for female alcohol consumption was responsible for wives' drunkenness being used increasingly as a defence in domestic violence cases over the course of the nineteenth century. Wiener believes that the Victorian ideal of the female domestic realm was responsible for the decrease in the popularity of drinking among women during the first half of the nineteenth century, and that this growing public intolerance for female alcohol consumption was responsible for the decline in the severity of sentencing for men who murdered their wives between 1830 and 1850. Wiener writes:

> As the symbolic importance of the home mounted, the "breadwinner ideal," that the husband should be able to support his wife and children by his own efforts, spread, and the maintenance of domestic harmony, order and economy was more thoroughly made the wife's responsibility. In such a climate, an addiction to drink in a wife was ever more repulsive. Persistent drinking undermined virtually all facets of a married woman's essential roles as wife, mother and housekeeper. A husband's addiction to drink, as long as it did not prevent him from holding a job, was seen as less serious. Even apart from the practicalities of family survival, drunkenness clashed far more with the womanly ideal increasingly accepted lower and lower in the social scale than it did with the manly ideal, it too becoming more widely accepted through the social scale.[309]

Women had undoubtedly enjoyed the effects of alcohol consumption in previous centuries as men had done: it allayed hunger by supplying calories, it made drinkers feel more relaxed and it relieved the aches and pains of manual labour.[310] A

[308] Burnett, 162; Brian Harrison, 44.
[309] Martin Wiener, *Men of Blood: violence, manliness and criminal justice in Victorian England* (Cambridge: CUP, 2004), 184-185.
[310] J. F. C. Harrison, *The Early Victorians: 1832-1851* (St. Albans, Hertfordshire: Granada, 1971), 69.

caffeinated drink would have been a logical alternative to alcohol. Having surpassed coffee in the eighteenth century and already being consumed in all classes of society by the start of the nineteenth century, tea would have been the natural caffeinated alcohol-replacement for women. Tea was so popular as a drink for women that a Co-op advertisement for tea from the 1930s attempted to convince customers that tea was "a Man's Drink! no less than a woman's!!" [See *Appendix F,* PAGE]. Tea is a stimulant, originally marketed in Britain as a medicinal preparation.[311] The way in which caffeine made drinkers feel more alert was not fully understood during the nineteenth century, just as the nature of muscular energy was not fully understood (until the late 1860s, scientists believed Liebig's theory that energy was created from the oxidation and deterioration of muscle tissue).[312] Pure caffeine, the crystalline substance trimethylxanthine, was isolated from coffee beans by Freidlieb Runge in 1819, and by 1840, several chemists realized that the feeling of invigoration created by tea was caused by the same substance.[313] It was thought that the perceived energy boost was attributable to a nutritional quality, as if tea created energy, as calories in alcohol did. Cadbury's drinking chocolate advertisements from the 1880s rapturously proclaimed the "health-giving" properties of the drink which made one feel awake and energized. One of these advertisements is included in *Appendix E* [PAGE]. While cocoa is a good source of energy, containing fats, and has been shown to possess antioxidants, the energy boost described was likely due to the caffeine content which, like tea, makes the drinker feel energized and alert because of its effects on the central nervous system, increasing blood pressure and speeding up energy metabolism, not by offering calories to burn. Amazingly, some drinks are still marketed this way. Red

[311] Bennett Alan Weinberg and Bonnie K. Bealer, *The World of Caffeine: the science and culture of the world's most popular drug* (New York: Routledge, 2001), xiii.
[312] Guggenheim, 73-77.
[313] Griffiths, "Caffeine Pharmacology and Clinical Effects," 193; Weinberg and Bealer, *The World of Caffeine*, xxi.

Bull still advertises itself as an "energy drink" that "gives you wings" when, technically speaking, "energy provided" as a nutritional term, as opposed to a subjective feeling, is specifically associated with calories, not chemical alterations.

The majority of nineteenth-century working-class women were underfed and overworked and tea more than likely provided the stamina necessary to perform household chores or paid labour without sufficient caloric intake. Tea is exactly the kind of food supplement that would counter the hunger and exhaustion caused by (and unfortunately, possibly facilitated the perpetuation of) the unequal distribution of family resources. If women were consuming as much tea as Dr. Hawkes told the parliamentary committee he had observed (between six and eight cups a day) then tea may have been a contributing factor in the persistence of unequal consumption. This is not to imply it gave women no appetite for food, hence their serving an unequal portion to their husbands and dishing out their own meal to their children, but that perhaps it made the hunger just bearable enough to allow the practice to continue.

But tea's persistent place in working-class budgets was not merely due to the stimulating effect it has on the body. Eventually, tea and coffee drinkers become dependent on caffeine: it becomes necessary to consume caffeine in order to feel awake, rather than to stave off lethargy. Tolerance to caffeine means that more and more tea needs to be consumed to feel "normal." Withdrawal symptoms include exhaustion, jitteriness, anxiety, nausea and headaches.[314] Like modern coffee addicts, many women probably continued purchasing tea, presumably even when funds were tight, to avoid the unpleasant symptoms of suddenly going without rather than for the perceived benefits it provided. Hence, caffeine addiction was likely a strong reason why tea remained one of the last items struck from the poorest of household budgets.

[314] Roland R. Griffiths *et al.*, "Caffeine pharmacology and clinical effects," *Principles of Addiction Medicine* (Chevy Chase, Maryland: ASAM, 2003), 200-202, 209-212.

While the price differences between tea and coffee stemming from the eighteenth century, the expense of milk and sugar, and the cost and labour associated with coffee-making instruments all explain why tea surpassed coffee as the caffeinated drink of choice among Victorian and Edwardian working-class women, tea owed its popularity to more than its purified-water properties or its ability to make a "cold supper seem like a hot meal." The stimulating and addictive qualities of caffeine in making tea a staple food of nineteenth-century working-class women should not be underestimated.

Treacle

Treacle, as it was known throughout most of the nineteenth century, is a dark, sweet syrup known as molasses in the United States. A by-product of the sugar refining process, anthropologist Sidney Mintz writes, "in the English diet, it was for more than a century at least as important as any crystalline form of sugar."[315] This fourth element of a woman's diet, according to the butcher from Brigg, does not seem to be anywhere near as pervasive as the first two. Although it was frequently consumed, loyalty to treacle appears regional and, based on its inconsistent place in working-class budgets even before sugar overtook it as the sweetener of choice, one would hesitate to call it a staple. Burnett writes of Edward Smith's investigative results, somewhat unclearly:

> Of other foods most widely used was sugar, at 7 ½ oz. adults weekly and 33 ¾ oz. per family. Much of it went to sweeten tea, though in the poorest counties this was drunk without either sugar or milk, and an increasing amount was in the form of treacle, which at 4 d. a pound was a cheap substitute for butter. Sugar in 1863 was still in a

[315] Mintz, *Sweetness and Power*, 22.

> transitional stage, regarded by better-off families as a necessity, but by the poorer still as a luxury.[316]

In this passage, Burnett lumps all sugars together into one category. However, all sugars are not created equal, and the evolution of treacle to refined white sugar as a staple of working-class diet warrants serious exploration due to treacle's considerable iron content.[317] While Burnett mentions that in 1863, "treacle, which at 4d. a pound was a cheap substitute for butter," he fails to mention that treacle was an *extremely* more nutritious alternative to butter than either margarine or jam, and that if a tablespoon of treacle were used to sweeten tea instead of white sugar, then five cups of tea a day provided over 30% of a woman's daily allowance of iron. Treacle contains many nutrients, and is currently recommended to vegetarians as an excellent non-animal source of iron. There are approximately 20 grams of treacle in a one-tablespoon serving, which contains roughly 1 mg of iron. If women were spreading this on their bread as well as adding it to their tea, even if they were being frugal, they would have been greatly contributing to their daily iron intake. Treacle contains between 4.7 and 17.5 milligrams of iron per 100 grams, which is between 30% and 125% of the EU recommended daily value of 14 mg per day (although this is an average recommendation as women require more iron than men between puberty and menopause, and 27mg per day is recommended for pregnant women) depending on whether it is from the first, second or third boiling in the refining process of cane sugar.[318] The treacle taken from the third boiling, known as "blackstrap" molasses in

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[316] Burnett, 162.
[317] Only Elizabeth Roberts mentions the significant amount of iron in treacle in passing, 154.
[318] According to recent food labelling guidelines, treacle would be officially classified as "high" in iron (as a serving contains more that 20% of the Recommended Daily Value, which in the EU is 14mg per day.) From the USDA Nutrient Database 2005, http://www.nal.usda.gov/fnic/foodcomp/search/index.html, (searched term "molasses") accessed 07 April 2005; ELook.org Nutritional Database (based on FDA figures) http://www.elook.org/nutrition/sweets/6025.html and http://www.elook.org/nutrition/sweets/6026.html accessed 07 April 2005, and the National Institutes of Health Office of Dietary Supplements webpage, http://ods.od.nih.gov/factsheets/iron.asp accessed 15 Feb 2006.

the United States, is the highest in iron, but it is unclear whether this type of treacle would have been available to the working public (although it has seen a revival in the health food industry, it was, and still is, mostly used for cattle feed as many find it bitter and unpalatable). One hundred grams of even the lightest treacle contains more iron than three ounces of beef, chicken, turkey or tuna, or half-a-cup of spinach. Treacle is also high in calcium, containing at least 205mg per 100 grams (20% of the US RDA) and more than 60% of the US recommended daily allowance of magnesium, potassium, and manganese. It is also high in selenium (an absolutely vital mineral – selenium deficiency is common as it is not found in a wide variety of foods) and Vitamin B6.[319]

Due to conflicting statements by food historians and the varying descriptions of sugar given in autobiographies and oral histories from many different areas throughout the century, it appears that treacle's popularity had as much to do with regional loyalty as it had to do with price and availability, so there is no straightforward rise and fall in consumption. However, it *generally* seems to have been consumed most heavily, especially in northern England, between the 1840s and the 1870s, when it was at its cheapest, declining as white refined sugar became less expensive and before the process to convert treacle into what is sold today as "golden syrup" was developed in 1880.[320]

Especially problematic is the variation in regional names for the iron-rich sugar syrup. The process of refining treacle using charcoal into golden syrup stripped treacle of its nutritional value, but it was preferred in some areas of the United

[319] As a point of interest, Newnham College, Cambridge served black treacle with cheese after its meals during the late 1960s and early 1970s. As this was not a tradition at other Cambridge colleges, and Newnham was one of three all-female colleges at that time, Jane Humphries, a former student, believes treacle may have been offered to provide female students with the extra iron they required (Humphries, personal communication, 2007).
[320] Drummond and Wilbraham, *The Englishman's Food*, 332.

Kingdom because of its less pungent flavour. Confusingly, after 1880, many began to refer to the refined, light-coloured sweetener as "treacle" while calling the original unrefined version "black sugar," "black treacle," or by its American name, molasses. In *Round About a Pound*, Maud Pember Reeves wrote: "Treacle, or – as the shop round the corner calls it – 'golden syrup,' will probably be eaten with the pudding, and the two together will probably form a midday meal for the mother and children in a working man's family."[321] An Essex woman told her interviewer that in the 1880s and 1890s "We didn't have treacle, we had black sugar." Whether this was a matter of availability or expense is unclear. While Mrs. Rose informed her interviewer that her father was a "working farmer" and that it was "very poor living," yet her mother would hire a woman to do the weekly washing, ironing and hanging, implying that they were not the poorest of agricultural workers. Mrs. Rose reports having frequent fruit puddings and pies as a child and that her "mother used to make marmalade." If this family was capable of buying the large amounts to sugar and oranges necessary to make jam, marmalade and pies, it is possible that black sugar was considered upscale sweetener for a working-class diet and was actually preferred over golden syrup.[322]

Also confusing is the fact that while "black sugar" was likely a reference to dark treacle syrup, "brown sugar" was granulated or sold in a solid lump. Loaf sugar, an example of sugar in semi-refined form which was used by the wealthy in the eighteenth century, was still in use in Wales at the end of the nineteenth: "The sugar was bought in large hard lumps of a cone shape and this had to be broken up before it could be used."[323] Interestingly, none of the Welsh families interviewed by the Domestic Arts students recalled using treacle. Several described purchasing cone sugar, and one man from Llangwyryfon said he sweetened his "bwdran" (a thick

[321] Reeves, 98.
[322] Mrs. Rose, Essex Record Office, SA/17/797/1.
[323] Mr. and Mrs. Evans, interviewed by Doreen Jones, 1960, Museum of Welsh Life, LL1016.

oatmeal eaten cold with milk) with brown sugar.[324] Gwyneth Morgan's interviewee told her that "only the wealthiest farmers put butter and sugar in their bwdran"[325] indicating that sugars were primarily used for tea. None of those interviewed discussed using honey, although it was mentioned in reference to nineteenth-century home-brewing in a Welsh recipe collection by historian Minwell Tibbot.[326]

Brown sugar contains lower amounts of the vitamins and minerals found in treacle, but it is nonetheless a source of a wide variety of nutrients. 100g of brown sugar contains over 13% of the EU daily allowance of iron (10% of the US RDA) and 8% of the recommended daily value of calcium. While the refining process destroys most of the vitamin B6 and selenium, brown sugar retains substantial levels of magnesium, potassium, copper, and manganese.[327] Loaf sugar, which is made by mixing brown sugar with treacle and moulding it into its cone shape, would likely have contained nutrient levels lower than those in treacle, but greater than those in brown sugar. Both treacle and brown sugar are calorie rich, and while they did not contain the fat or protein that meat provides, they would have been very beneficial to calorie- and meat-poor female diets.

Food historians have previously written about the unfortunate effects which advances in food science had on nineteenth-century working-class health. Examples would be the development of margarine and jam. Margarine made of beef fat was invented in 1869 and within twenty years it was being produced in the UK on a massive scale, purchased as a cheap alternative to butter. However, by 1914, the

[324] Mr. Morrice, interviewed by Doreen Jones, 1960, Museum of Welsh Life, LL1016.
[325] Interview by Gwyneth Morgan, 1960, Museum of Welsh Life LL1019.
[326] S. Minwell Tibbot, *Welsh Fare: A selection of traditional recipes* (Cardiff: National Museum of Wales, 1976), 50 and 79.
[327] ELook.org Nutritional Database (based on FDA figures) http://www.elook.org/nutrition/sweets/6146.html and the USDA Nutrient Database http://www.nal.usda.gov/fnic/foodcomp/search/ (searched keyword "sugars, brown), accessed 15 Feb 2006.

industry, which had been progressively adding more and more vegetable oil to beef-fat margarine, was able to create a spread made solely of vegetable oil. Burnett writes:

> Its nutritional disadvantage was that whereas beef-fat margarine had contained appreciable amounts of vitamins, vegetable oil contained practically none. The diet of the poorest classes in 1914, which often consisted essentially of bread made from roller-milled flour, margarine and condensed skim milk, was, therefore a terribly impoverished one. This particular deficiency was not remedied until the introduction of "vitaminized" margarines in the 1930s.[328]

The same could be said for the wide-scale production of jam. Jam manufacture began in the 1870s, and increased when manufacturers began using commercial pectin after 1900. Burnett writes:

> Sales of jam by this time were already enormous, especially in industrial areas where a sweet, highly flavoured spread that was cheaper than butter and made margarine more palatable quickly became popular.[329]

Because the majority of the population had yet to learn that fats and carbohydrates serve different nutritional purposes and contain different minerals and vitamins, most people saw no harm in substituting margarine or jam for butter. In fact, some encouraged the working classes to do so as a matter of economy. Alfred Fryer wrote in 1886 about a travelling fair he attended in Wilmslow. The exhibition, entitled "The Thrifteries" exhibited over one hundred examples of "thrift," for instance, how to make a medicine chest out of an empty chocolate box. One exhibition consisted of three plates of varying amounts of sugar and two tumblers of butter:

> The label read 'One Pennyworth of Sugar, Now and 70 Years Ago'

1816	West India, 8d. per lb.
1886	Moist refined, 1 ½ d. per lb. Loaf, 2 ½ d. per lb.

[328] Burnett, 142.
[329] Burnett, 143.

> In contrast with this cheap sugar stood a couple of tumblers, in which fresh pats of butter were floating, one being about three times as large as the other. This was intended to show what quantity of butter could be purchased for a penny at the present time and seventy years ago. The lesson was obvious. If butter had become three times as dear, and sugar five times as cheap, persons who desired to spend their money to the greatest advantage should limit their expenditure in the former luxury and purchase nine of the latter, substituting in the diet of children, in more of the eternal bread and butter, preserves and farinaceous puddings. This is the more desirable inasmuch as sugar and butter are interchangeable for dietetic purposes, both foods being fat formers destined to furnish the fuel which keeps the body warm.[330]

White sugar, which was dear at the start of the nineteenth century, decreased in price by 30 percent between 1840 and 1850, and a further 25 percent by 1870, ultimately became affordable to the working classes by the end of the century and was especially consumed in urban areas.[331] The goal of the extensive refining process that created its high cost was to make a sugar that tasted purely of sweetness, and was otherwise colourless and flavourless. Another reason for the popularity of white sugar was the pervasiveness of the sugar mite, also called sugar lice, which infested raw sugar. The scale of the infestation was exposed by anti-adulteration crusader Arthur Hill Hassall in the 1850s which lead to wide-scale refining.[332] What makes the transition from the working-class use of treacle, loaf and brown sugars to white refined sugar particularly tragic is that the nutrients in various forms of raw sugars were entirely stripped from white sugar crystals along with the colours and flavours during the refining process.

Food and food descriptions

[330] Alfred Fryer, *Wilmslow Graves*, 221.
[331] Mintz, 144.
[332] Gratzer, 129.

It is important to note that bread (and its sop variation), tea and treacle were merely staples, and while there was a great deal of monotony of diet within regions and households, especially regarding breakfast and supper, women did make efforts to vary dinner and to take advantage of purchased food of good value and seasonal produce. It is important to acknowledge that men ate most of the protein at any given meal and that women and children consumed mostly carbohydrates, but what those carbohydrates were and how they were prepared was not static. This paints a very different picture of what women consumed both nutritionally and adds new dimensions to the context of their deprivation.

In 1886, Benjamin Johnson told the author of *Wilmslow Graves*, "We lived on potatoes and buttermilk and porridge."[333] He also speaks fondly about oatcakes. Born in 1810, Johnson addresses how the availability of certain foods changed throughout his lifetime:

> There were then some good potatoes, which have now died out. There were 'Irish apples', which were so late they kept growing till Christmas…Capital Croppers…Lyme Reds, Billy Greens…Potatoes were plentiful and there seemed to be no diseases then, and buttermilk could be got from the farmhouses for twopence or threepence for a good can holding two gallons, and you could get a good canful of whey for twopence. I've made many a dinner of whey and bread and thought very well on it too.[334]

John Wood, describing in 1877 the meals in his childhood home and in neighbouring cottages:

> Their food was of the plainest description, and required very little time or trouble in cooking. The following was their ordinary style of living: For breakfast they had oatmeal water porridge and blue [skimmed] milk; dinner consisted of boiled potatoes and fried bacon; sometimes they had their potatoes served out in the true Irish fashion, with the "jackets" on. In the afternoon, at "tea time," they had a supply of

[333] Alfred Fryer, *Wilmslow Graves*, 97.
[334] Fryer, 96-97.

> mint tea, sweetened with treacle, which they drank out of a black pint pot; to this they had a quantity of oatcake slightly covered with bacon drip, sometimes they had a pint of blue milk and oatcake as a substitute. Flour and wheat bread were things seldom seen in a working man's cottage.[335]

Considering that northern England is often described as the last hold-out of home-baking in the nineteenth century, Wood's remark about flour and wheat contrast with the persistent descriptions of baking from women from northern England later in the century, and actually are more in keeping with the observations of social investigator William Cobbett. John Burnett writes that potatoes were common in Lancashire and Cheshire at the start of the nineteenth century and spread to the southern and south-western counties by 1830. While Cobbett may have considered potato-farming and potato-eating to be slovenly (he referred to it as "Ireland's *lazy* root," "this villainous root," and "this root of wretchedness," because of what he claimed to be its relative ease of cultivation and cooking), the vitamin C content of potatoes made it far superior to the white bread diet of the second half of the nineteenth century and it was later used by schools and institutions for paupers to combat scurvy outbreaks.[336]

Fruit and Vegetables, Self-provisioning and Social Networks

Many historians studying British nutrition have commented on the lack of fruit and vegetables in British diets of all classes, but especially in the diet of the working-class (indeed, this remains a current criticism of British working-class diet). However, the variety of different foods described in the Age Concern essays, oral history tapes and the autobiographies from the mid-nineteenth century to the early twentieth century is somewhat at odds with the vision of nineteenth-century working-class diet created by

[335] John Wood, *Autobiography of John Wood, an old and well known Bradfordian*, 6.
[336] William Cobbett, *Cottage Economy* (London: C. Clement, 1822; 17th edn, 1850; repr., Oxford: OUP, 1979), 49-52, 68-69, 74; Drummond and Wilbraham, 228.

secondary histories of British diet written in the past thirty years; Derek Oddy and Derek Miller, John Burnett, F. B. Smith, Floud, Wachter and Gregory have focused a lot of attention on the nutritional deficiency and monotony of the nineteenth-century diet of both urban and agricultural labourers. While one must certainly acknowledge that the working-class diet was based entirely around a few staple carbohydrates, that women's and children's diets were largely insufficient in protein and micronutrients, and that women, especially those married to unskilled or seasonal workers, had to struggle to afford and create meals for their families, the diets described in these sources are not in keeping with variety of foods, the resourcefulness of families, or the creative culinary skills of working-class mothers remembered in the primary sources utilized by this thesis.

One could argue that this incongruity is a result of the bias of memory. Often, events and occurrences are remembered because they are out of the ordinary, or associated with times of profound happiness or sadness (which is probably why Tabitha John could remember and record with exceptional detail that the pink and white cake she bought for her four-year-old's party, just days before his unexpected death in the early 1920s, cost 7d a pound).[337] Such memories are not representative of the daily experiences of the nineteenth-century working class that most historians (such as those listed above) wish to reveal in their work. They are distinct from the regular, ordinary activity that marked working-class life and they do not lend themselves well to supporting the broad generalisations of cultural behaviour preferred by social historians. However, while much of these memory-based sources are anecdotal, let us not forget that a significant amount of secondary work includes anecdotal evidence, based on reports from Parliamentary committees (i.e. Poor Law

[337] Tabitha John, *Tabitha: The Story of a Llanelli Character*, (Llanelli: privately published, 1979), 71.

Commission reports, agricultural reports, reports from the Committee on Physical Deterioration), the testimonies for which were often casual observation. Indeed, the "sop, bread and treacle" quotation uttered by the "Butcher from Brigg" was anecdotal. He was neither a working-class wife nor mother, and one would hope that, being a butcher, his own working-class wife did not suffer from such dietary monotony and protein deficiency, which causes one to wonder why he was given consideration as an authority on the subject.

Rather than focus on the bias of memory or the unscientific nature of anecdotal evidence as the reason behind the recollections of varied and enjoyed meals, I would blame the secondary literature's reliance on budgets and dietary surveys. Surveys carry the inherent biases of the compiler in the questions asked and, sometimes, by offering pre-determined answers from which the respondent must choose. Budgets, as insightful as they may be, only reveal the purchased elements of weekly consumption. Aware of these limitations, some investigators went to great pains to ensure they obtained a complete picture of what a family was actually consuming (for instance, Dr. D. Noel Paton weighing the week's refuse of each family in his study).[338] Burnett and Drummond and Wilbraham rely heavily on budgets, while Derek Oddy prefers nineteenth and early-twentieth century social investigators reports and agricultural import and national consumption statistics. Burnett is particularly fond of recording nineteenth-century men and women puzzling over the budgets of their poorer contemporaries: "How, [a doctor from Calne] asked, could a labourer support even two children on 8s. a week when, in addition to food, there was house-rent, fuel, clothing, boots, medicine and so on? 'When I reckon up these things in detail I am always more and more astonished how the labourers

[338] D. Noel Paton, *Poverty, Nutrition and Growth Studies of Child Life in Cities and rural Districts of Scotland*, 149-150.

continue to live at all.'"[339] The work done by these historians is extensive, meticulous and comprehensive, but a focus on the history of diet using direct working-class oral history and autobiographical sources brings about interesting insights concerning food variety and alternative sources of food that were not procured (or only indirectly procured) with income, and these insights deserve exploration.

Many of the first-hand descriptions of diet from the second half of the nineteenth century and the first decade of the twentieth contain fond recollections of fruit and vegetables.[340] An increase in the amount of land provided for allotments after 1845 may have been partially responsible for this, and in accordance with Burnett's findings, mentions of fruit, vegetables and baked dishes did increase after 1840, however they were not limited to the north of England.[341] In his interview, oral history respondent Arthur Went recalled helping his father in the garden. When asked by his interviewer what his family grew, Went replied, "Oh, yes, and we used to grow a lot, grow everything. Potatoes, and peas and beans – everything we needed, you see."[342] Such memories of plentiful fruit and vegetable consumption seem to seriously contradict social surveys listing starchy carbohydrates as the sole component of women and children's meals, or weekly shopping lists and budgets void of anything fresh and green. They are exceptionally revealing in that, in several cases, they were mentioned as an afterthought: "P.S. I forgot to say Dad cultivated an allotment which supplies us with all our veg and fruit of which Mother used to make sometimes 90 to 100 lbs. of jam for the winter which was a great help," wrote one Essex woman born

[339] Burnett, *Plenty and Want*, 43.
[340] For example, see Benjamin Brierley, *Home Memories, and recollections of a Life,* for rapturous memories of a potato pie, 10; or the interview of Mrs. Jones, who spoke fondly of the fresh vegetables added to Thursday's reheated caul, green vegetables for Sunday dinner, potatoes, swedes, and laver bread (fried seaweed), MWL, LL1037.
[341] John Chapman, "The Later Parliamentary Enclosures of South Wales," *Agricultural History Review*, 39/2 (1991), 117 and 124; Burnett, 46-7.
[342] Interview with Arthur Went, ERO, SA/8/1881/1.

in 1885.[343] In another essay in the "Mother and Father" competition, Miss Potter described the efforts of both her father and mother in providing food for their family of eleven, "I do not feel that we were ever hungry because Father manage [*sic*] to keep a few chicken and always had an allotment and sometimes rabbits which were a great help. My mother was very [proud] of her garden everything she put in always grew," still it is only after the closing of her essay (wrote in letter form) that she adds at the bottom of the page, "I have just remember that my Father help [*sic*] in 3 other ways to feed us, By selling Railway magazine also a book called the Christian Herald and collecting for the infectious diseases club for the Railway men."[344] Remarkably, efforts by fathers to feed their children appear to have been often overlooked. In "Memories of Seventy Years," Mrs. Layton, born in 1855, describes her childhood in Bethnal Green. About her father, Mrs. Layton writes: "A good father and husband up to a point, he left the responsibility of the whole family to my mother. She it was who had to start us all out in life. As our family increased and my father's wages remained stationary, it was necessary for my mother to earn money to help keep us in food and clothing."[345] However, just a paragraph before making this statement, Mrs. Layton claimed, "In his spare time, he learnt the trade of a tailor and was able to augment his small salary by doing work for people who knew him and by growing nearly all the vegetables the family consumed."[346]

What these contradictory memories or afterthoughts may suggest is a discrepancy between the role of a particular parent and the reality of the work that they did. In other words, Victorian working-class children had difficulty remembering

[343] Rose May Smith, "My Mother and Father," Age Concern Essay Competition, 1963, Essex Record Office, T/Z 25/471.
[344] Miss E. Potter, "My Mother and Father," Age Concern Essay Competition, 1963, Essex Record Office, T/Z 25/480.
[345] Mrs. Layton, "Memories of Seventy Years," *Life as We Have Known It"* (ed.) Margaret Llewelyn Davies (London: Hogarth Press, 1931; repr., New York: Norton, 1975), 7.
[346] Mrs. Layton, "Memories of Seventy Years," *Life as We have Known It*, 7.

the food provided by their father because feeding was Mother's job. It would also seem that since fruit and vegetables were in many cases supplied by fathers (possibly because of the physical labour involved in growing fresh produce), these items were the ones left out of the inventory of diet memories. So, because vegetables were neither purchased (leaving them off of shopping lists, budgets or surveys), considered nutritionally essential, nor provided by mothers, they were often overlooked as part of daily meals. These factors seem to have contributed to a general sense of vegetables not being considered "food," which may have caused their consumption to be forgotten, just as "junk food," because of its lack of nutritional value and other factors (such as the way in which it is usually consumed outside of structured mealtimes or in front of a television) often prevents some from recalling its consumption upon initial recollection. Vegetables were often mentioned in taped interviews, possibly because interviewers continued to probe after questions were answered, usually not satisfied with the first response offered by an interviewee. It also seems that written essays and autobiographies allowed for a period of deliberation that led to a more all-encompassing recollection of diet, and which, judging by the post scripts, sometimes illustrated the necessity of further reflection to remember vegetables as a *father's* contribution to the family diet.

For many working class families, neighbours were indispensable. They provided food, clothing, healthcare, childcare, and emotional support. Neighbours in working-class communities constantly relied upon each other and the necessity of having a strong network of neighbours and close relatives is well-documented by nineteenth-century women's historians. As vegetables were very often supplied by neighbours and extended family, as well as being irregularly or seasonally acquired, rather than purchased, this factor may have contributed to working-class respondents

overlooking their presence at mealtimes. When Hannah Mitchell moved to the mining community of Newhall, near Burton-Upon-Trent, Derbyshire, in the 1890s, her new neighbours immediately provided them with garden produce until they could supply their own: "We found ourselves much better off here, with an extra five shillings a week; fresh eggs, and later potatoes and vegetables from the garden; even before our own were ready we lacked nothing, for our kindly neighbours, who thought it terrible to have no home-grown stuff, brought us pails of potatoes, cabbages, peas and beans, pots of jam and bottles of home-made wine."[347] Being a mining community, this village was not in a rural setting like many of those described in the Essex interviews and essays, however the gardens were large enough for growing fruit and vegetables and each contained a pig sty. "All the miners kept one or two pigs, which kept their tables well supplied with pork, bacon and ham. We did not rise to pig-keeping, but kept poultry instead," writes Mitchell describing yet more ways in which the mining families supplemented their diet through non-income food sources.[348] The fact the neighbours "thought it terrible to have no home-grown stuff" illustrates that their own produce was considered a necessity, and that they were eating, not selling it. While neighbours often received payment, in the form of money or work, for meat or dairy products, for example for cuts of pork when a pig was ultimately slaughtered, several auto-biographers mention receiving food from relatives working on farms for free. Often if the relations were better off, they gave in abundance on special occasions. Tabitha John writes about receiving food from her father's relatives when they slaughtered their animals:

> My dad having been brought up on a farm himself used to have parcels of bacon and ham sent him by relatives still on the farms. I used to always have the first big chunk

[347] Hannah Mitchell, 104.
[348] Ibid.. 104.

> of ham for myself…At Christmas time Mam and Dad used to have a big heavy turkey or goose sent to them. There was always a note with it, 'Don't forget the stuffing Charlotte' (Mam's name). The stuffing used to be a gold sovereign.[349]

Anna Davin recognized this phenomenon of children forgetting to discuss food that they received as payment for work: "The girls in the Greenwhich school who reported receiving food were all but one from Standard Four: perhaps in the other classes (and throughout Maidstone Street School) no-one thought of mentioning it." Davin writes:

> Food often supplemented or even replaced the low wages paid to children. Those who did baby-minding and housework would at least be given tea and perhaps bread, with marge, dripping or jam, and if the employing family ate more they might share it. What they had might not amount to much, in quality or in quantity, especially if their employers were hard up or mean, but it still helped to relieve demands on the resources at home. Walter P. (born in Whitechapel in 1903) recalled how he and his brothers and sisters each had a round of Jewish households in the Brick Lane district of East London, where they would light fires on the Sabbath, and the reward – as for Mayhew's watercress girl – was often a piece of fried fish and a slice of rye bread. They either ate it at once, or brought it home for supper to be greeted gratefully by their mother: 'What good children you are!'(69 - Walter P.) Children who worked on street stalls or in shops which sold food were given surplus or substandard stock – 'specked fruit, cracked eggs, ageing vegetables, broken biscuits or stale bread – for family consumption."[350]

There seems to have been a fine line between doing chores for neighbours to receive food and scrounging. Some mothers may have seen this kind of behaviour as an affront to their ability to feed their children. Apparently, there was no shame in struggling, but women did not want their neighbours to think they were failing at keeping their families from going hungry. Also, some wealthier neighbours to whom children went to help in exchange for pennies or a snack were not always aware of

[349] Tabitha John, *Tabitha: The Story of a Llanelli Character*, (Llanelli: privately published), 1979, 14.
[350] Anna Davin, *Growing Up Poor: home, school and street in London 1870-1914* (London: Rivers Oram Press, 1996) 168-169.

their end of the bargain. Nevertheless, children persisted in their efforts to find food and pocket money, ultimately seeking to carry out regular task or weekly errand. Elizabeth Layton writes of trying to get money and food from neighbours in London in the middle of the century:

> A good many girls that I knew were what were called 'step girls' and earned what to me was a small fortune – about 9d. – on Saturdays cleaning people's steps. One Saturday I thought I would try my luck and see if I could earn some money, so off I went, unknown to anyone who would be likely to tell my mother. I had not been out long when it began to rain, spoiling all my chances of earning money. I knocked at several doors and asked if they would like the steps cleaned, but not one person would give me a job so I had to give up in despair. One lady asked me if I was hungry; she said she was sorry she could not have her step cleaned, but if I waited she would give me something to eat. Presently she came to the door with a parcel and gave it to me, telling me not to waste any; what I could not eat I was to take home to my mother. I thanked her and ran off to a sheltered place to open the parcel, expecting to find something I could eat for I was very hungry. But I was doomed to disappointment, for the parcel contained some very dry pieces of bread and some crusts that looked as if they had been nibbled by mice, and a large piece of bacon rind. I could not eat any of it but had promised not to waste it so I gave the bacon rind to a hungry looking dog and carried the crusts to a man who kept a donkey.[351]

It would appear this woman, who lived in a wealthier neighbourhood than Layton, was under the same impression that many secondary sources risk giving: that the working class survived on barely edible crusts and fat when, in reality, their diets were frequently fresh, well-cooked and satisfying, if not plentiful and varied. Of course, these contradictory descriptions of working-class diet are in keeping with the reality of working-class families going through periodic bouts of deprivation and of enduring periods of poverty alternating with periods of relative prosperity (or, at least, economic sufficiency).[352]

[351] Mrs. Layton, *Life as we Have Known It*, (ed.) Margaret Llewelyn Davies, 9.
[352] See Rowntree's 'poverty cycle,' *Poverty: a study of town life*, 119.

Like doing chores for neighbours in exchange for food, other forms of self-provisioning (securing food or fuel not purchased with wages) were considered more or less reputable depending on regional attitudes, changing legislation and available opportunities. Some examples of self-provisioning, such as pig-keeping and gardening, were universally viewed as positive, industrious contributions to families. Gleaning and fuel-collecting, while widespread and widely considered to be a customary right of the poor during the eighteenth century, declined over the course of the nineteenth century due to enclosures, the conversion of fields to grazing pastures, mechanical advances in farming, changes in legislation and differences in regional customs, and farmers' willingness to restrict gleaning eligibility for their fields or to pursue legal action against those who trespassed.[353] Poaching was generally viewed as considerably risky. Mothers, despite being wary of scrounging and spoiling their reputations among neighbours on whom they often depended, sometimes walked that fine line and gleaned or made use of poached game, even in areas where gleaning was discouraged, if they saw the opportunity. Nellie Farrow's mother, who was a hay-picker and potato-picker, would take the children gleaning for peas during school holidays and Nellie and her siblings would go berry-picking with their mother in the mornings before school.[354] E. M. Lasts's mother, who was born in the 1840s, would also glean and pick vegetables with her children for extra income: "During our school holidays My Mother would take us into the Pea Fields, for this too, brought Grist to the Mill, and we earned enough money to buy us all new shoes and clothing for the

[353] Jane Humphries, "Enclosures, Common Rights and Women: The proletarianization of families in late eighteenth and early nineteenth century Britain," *Journal of Economic History*, 50 (1990), 17-42; Peter King, "Customary rights and women's earnings: the importance of gleaning to the rural labouring poor, 1750-1850," *Economic History Review*, 44/3 (1991), 468-471.
[354] Interview with Nellie Farrow, "Childhood in Burnham," ERO, SA/29/12/1.

coming winter. In the Harvest Fields too we gleaned enough corn to keep our hens in food for a long time."[355]

Both economic and social historians Jane Humphries and Peter King believe that gleaning provided significant income supplementation and that the tradition of allowing the poor, widows, children, or labourers and their families (depending on the preferences of the parish and individual farmers) was strongest in the southeast of England and weakest in northern England. King estimates that gleaning made up between 3 to 14 percent of the annual income of agricultural labouring families between 1750 and 1850.[356] Sara Horell and Jane Humphries provide evidence to suggest that self-provisioning, especially gleaning, declined after 1820.[357] King argues that wheat gleaning no longer provided the family with its flour supply for the year as it had done in the eighteenth century, but that the practice persisted, often to feed livestock or supplement the incomes of the poorest workers until as late as the 1890s when mechanical reapers and reaper-binders made wheat gleaning efforts fruitless.[358] Autobiographical evidence studied for this work suggests that self-provisioning was still a strong working-class tradition, although less of a systematic economic strategy than it was at the start of the nineteenth century, and that gleaning by the last quarter of the nineteenth century was less a seasonal rite dictated by parishes and harvest customs, and more a spontaneous practice when conditions were ideal for taking food or fuel from fields, hedgerows and employers.

While there was a strong tradition of gleaning being a female source of income supplementation, poaching seems to have been more of a masculine preserve,

[355] E. M. Last, "My Mother and Father," Age Concern Essay Competition, 1963, ERO, T/Z 25/461.
[356] King, 467-8; Sara Horrell and Jane Humphries, "The Origins and Expansion of the Male Breadwinner Family: the case of nineteenth century Britain," in Angélique Janssens (ed.), *The Rise and Decline of the Male Breadwinner Family* (Cambridge: CUP, 1997), 43.
[357] Horrell and Humphries, "The Origins and Expansion of the Male Breadwinner Family: the case of nineteenth century Britain," 43.
[358] King, 473-474.

although it would appear women were both happy to accept poached game from husbands and friends, but also worried about the effect being caught would have on their reputations, as well as the impact fines would have on their families. While Burnett devotes only one page to poaching, writing that, in the face of the harsh penalties (death, deportation, fines and imprisonment), "it is probable that no more than a very small proportion of labourers were systematic poachers: only those that did not have a regular job to lose, who lived in 'open' parishes or on the edges of commons or woods, might make a regular practice of it,"[359] However, local historians report sizeable numbers of arrested poachers well into the nineteenth century, indicating that an even larger of number of poachers went unreported. For example, Christine Bloxham writes that 28 Oxfordshire men were sentenced to hang for poaching in 1829.[360] Another possible reason for the discrepancy between Burnett's observation and the findings of local historians could be the inconsistency with which poaching and gleaning laws were enforced. In 1788, the ruling on the case of *Steel v. Houghton* established that, while it was a traditional custom in many parts of the country, there was no Common Law right to glean from a field. Subsequently, while gleaning itself was not declared illegal, gleaners could be tried for trespassing. While it was customary in certain areas to prosecute poachers and gleaners to the full extent of the law, in other parts of the country, poaching and gleaning continued to have an impact on working-class diet because the penalties for either were relatively lenient. For example, while Game Law convictions in Bedfordshire and Buckinghamshire were four times greater than the national average in the 1840s, very little poaching was reported in Cambridgeshire or Norfolk and public opinion appeared to play a great role in low conviction rates in these areas. David Taylor, author of *Crime,*

[359] Burnett, 157-158.
[360] Christine Bloxham, "Food Fit for the King," *Oxfordshire Limited Edition*, 235 (August 2006), 87.

Policing and Punishment in England, 1750-1914, writes, "In Essex, there was no great rush to litigation on the part of farmers. Juries were unwilling to find against gleaners who continued their defiance of the wishes of farmers into the nineteenth century."[361] Indeed, the vast majority of sources used for this project with references to poaching and gleaning came from Essex, and the Essex interviewees and essayists acknowledged that poaching was a way of life. Mrs. Nockles, born in Cambridgeshire whose father was a farm labourer, writes:

> I can remember I was coming out of school one day, a boy saying in a cocky sort of way, your Dad has got it this time, he's got to pay 2 pounds. 2 pounds was a lot of money in those days. Brother Frank coming up & saying, you leave her alone, she don't know anything about it. I realized then that everything was not alright. My Dad had been Poaching, and had been caught, it was no use trying to hide it, all the world would know. Mother who was at home, knew all the time, she was frightened when someone knocked on the door for him, she would say, Now Charl, don't you go, but Dad would go…The children's mother had the whip hand, and knew, and our mother knew, that poaching had taken place, & both fathers were involved.[362]

Whether a family poached and gleaned or not seems to have had more to do with the family's need (although some men definitely felt more daring or entitlement than others), than with the family's location. A Liverpool woman told a budget investigator in 1909 that her husband "gleans" rice from the dock where he worked: "it 'comes home in "his" pocket' and is not paid for."[363] A clear demarcation did not always exist between town- and country-dwelling and the resources available to each area, and children especially would try their luck taking fruit and vegetables off the back of vendors' carts. Ted Bridge, born in 1901 in Burnham, Essex, was lucky in that he and his family had access to village vendors, orchards and the sea. He and his wife, Dolly, born in Barking in 1907, were brought up in particularly poor families. His father was

[361] David Taylor, *Crime, Policing and Punishment in England 1750-1914* (Basingstoke: Machmillan, 1998), 42-43.
[362] Mrs. Nockles, "My Mother and Father," Age Concern Essay Competition, 1963, ERO, T/Z 25/498.
[363] Liverpool Economic and Statistical Society, *How the Casual Labourer Lives*, 34.

a fisherman, and they would fish for whitebait for family consumption. Ted would help him collect mussels on Saturdays. In 1990, Ted told an interviewer:

> We used to go scrumping, did I tell you that? We used to go scrumping, the girls and all. We used to take the girls when we come from school. We all went scrumping – arranged it for a moonlit night. And we used to go scrump for apples and pears. We had to go, 'cause we ain't got the food. I always said to my missus, nobody don't realize but how hard we had to go. And you see, we had to wait for a man to turn around with his cartload of vegetables and teas and apples and that – wait till he turn around, and when he weren't looking, I took one off the back of his cart – apples, pears, whatever was there…we never done nothing cruel, we never hurt nobody – we had to do that to live. And that's what I said, you can't believe what the books tell you…you don't realise what it was 'cause there weren't the money…weren't the work.[364]

Like Miss Potter mentioned above whose father acquired the occasional rabbit,[365] several Essex respondents mentioned eating rabbit, yet it is not clear whether these were poached or if they were raised in the garden: "We had a very large garden and grew all our own vegetables and fruit and had some to sell. We lived mainly on vegetables with sometimes a chicken or rabbit as there was no butcher in our village and the nearest town was 9 miles away," writes one woman born in 1882 in Monmouthshire.[366] Nellie Farrow's mother got her rabbits from a neighbour who poached, and he made sure they always had one for Christmas.[367]

Regardless of whether or not the rabbits were poached, they are evidence of the resourcefulness of nineteenth-century working men and women. While the early part of the century did see a shift in food-related labourer privileges (e.g. the lesser availability of cottage gardens, alterations in payment in truck, a reduction in locally available milk in some areas, and changes in gleaning privileges), it would appear that anyone with a patch of green grew something and shared it with their neighbours. Often they grew potatoes, but if there was extra space, they grew vegetables, built

[364] Ted Bridge, "Childhood in Burnham: interview with Mrs. 'Dolly' Bridge and Mr. Ted Bridge" ERO, Essex Sound and Video Archive, SA 29/4/1.
[365] Miss E. Potter, "My Mother and Father," Age Concern Essay Competition, 1963, ERO, T/Z 25/480.
[366] Miss C. F. Springham, "My Mother and Father," Age Concern Essay, 1963, ERO, T/Z 25/508 A.
[367] Interview with Nellie Farrow, ERO, SA/29/12/1.

pigsties, and raised chickens or ducks. The house where Mrs. Layton was born in Bethnal Green had a large garden and everyone in the neighbourhood kept livestock, but even when the family was forced to move to a house with a tiny back-yard, her father still grew vegetables in every available space. Layton's neighbourhood is a good example of a residential area that was neither an urban-slum, nor the rural countryside, but where people were still able to augment their food supply with fresh produce and did not fall into a fixed category of town worker or agricultural labourer. Tabitha John lived opposite the Morfa Steelworks, but there was still ample land surrounding the neighbourhood: "There were not a lot of houses on the Morfa then, mostly fields and vegetable plots, some of the plot owners kept pigs as well. They used to kill the pigs in their back gardens."[368] While the gardens of Hannah Mitchell's miner-neighbours were part of a newly built working-class housing community created when city planners recognized the benefits to workers of possessing a garden, those in older neighbourhoods with smaller gardens were still extraordinarily resourceful. One Essex man kept a small flock of sheep in his back garden and had arrangements with his neighbours to let the sheep graze in their small gardens: "He only sold the wool and the lambs he did not want…These sheep were kept largely on neighbours' ground eating any odds and ends and were greatly in demand to help clean the land and fertilize it," wrote his daughter in her Age Concern Essay.[369]

While the new Poor Laws shaped the nature of state charity after 1834 with their promotion of the workhouse and reluctance to provide outdoor relief, members of the working class, especially the children, found Catholic and Nonconformist religious organisations to be a reliable source of food in times of particular need. These organisations appear to have been willing to feed children of any religious

[368] Tabitha John, 14.
[369] Mrs. Tilbrook, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/473.

persuasion, without having to attend a service or prove their 'need' in any way. Ted Bridge from Essex and his family received charity from the Salvation Army.[370] Elizabeth Layton writes about the Sisters of Mercy coming to Bethnal Green in the 1860s. Despite the local suspicion and rumours surrounding this 'invasion' of Catholic nuns, Layton and a friend accompanied a girl whose family had been incapacitated by smallpox, and mustered the courage to knock on the door of the convent and ask for food. They were given cake and bread, and then the Sisters began regularly visiting the family, nursing them and providing food until they recovered.[371] Mabel Pepper from Leicester told her interviewer about a Mission Hall in the Belgrave area of the city: "They used to call it 'The Mormons'…It was where the poor kids used to go and get something to eat. A bit of bread and dripping or something like that." When asked if she had to sing a hymn or participate in a religious activity to get the food, she replied, "Oh no, you used to just get it."[372]

Mr. Major from Epping Forest was raised by his mother who had a very difficult time supporting her family, and who, perhaps as a matter of pride or shame, did not let neighbours or relatives know of her financial troubles. She instead used another much-relied upon support system: that of sympathetic and savvy tradesmen and suppliers. In 1963, her son wrote: "Mother had two very good friends and one who in the end was a friend too, namely, the Milkman who also supplied eggs and butter etc, the Coalman and lastly the Landlord who was a Jewish gentleman."[373]

Tabitha John was offered similar assistance from local merchants during times of great family hardship when she was reluctant to go to neighbours for support. After nursing two children through a long illness while she was pregnant, losing one, and

[370] Ted Bridge, ERO, SA 29/4/1.
[371] Mrs. Layton, "Memories of Seventy Years," *Life as We Have Known It*, 10-12.
[372] Mrs. Mabel Pepper, The Record Office for Leicestershire, Leicester and Rutland, Leicester Oral History Archives Collection, 816 LO/180/131.
[373] Mr. H. E. Major, "My Mother and Father," Age Concern Essay Contest, 1963, ERO, T/Z 25/502.

then facing the sudden death of her four-year-old son from meningitis in quick succession, a devastated Tabitha found herself grieving and impoverished due to doctors bills and burial costs:

> To lose little Bramwell…was awful. We were in a fix. I would not have the neighbours collecting again. Mr. David Pugh was calling at our house as I'd had a new bed from them. He told Tom [her husband] not to worry as he would see to things and we could pay him as we could. Collection for one burial and debt for another…Mr. Olive was still keeping us in food though we had very little money to send to the shop every week…I used to get lumps of dripping with Garfield Arthur, the butcher. He was also very good to us. He'd be around on a Saturday evening and I'd get some meat cheap, often free. He'd say, 'Take these scraps, they'll make the children a good meal'. He also gave us marrow bones.[374]

Tabitha John's and Mr. Major's memories contrast with popular historical narratives and contemporary novels, as well as the standard historical view, which usually represent tradesmen and shopkeepers as exploitative of the community. However, one realizes from this evidence that the shopkeepers, landlords, butchers, etc. were a part of the community; they *were* the neighbours, too. As historian Paul Johnson writes:

> Shop credit for working-class customers was likely to come from small family shops: multiple shops and department stores tended to demand cash from customers, especially for food and household goods which were the main items of expenditure for working-class families.[375]

Johnson informs his readers that many working-class customers shopped in local, family-owned businesses even when large marketplaces were nearby, "because the local shopkeepers gave credit, sold in small quantities, stayed open late, and knew their customers. This sense of and knowledge of community was important for both buyers and sellers."[376] Even in the most anonymous hearts of the busiest cities, these merchants knew who was experiencing an authentic family tragedy, unemployment or

[374] Tabitha John, 72-73.
[375] Paul Johnson, *Saving and Spending: the working-class economy in Britain 1870-1939* (Oxford: Clarendon Press, 1985), 145.
[376] Ibid.

illness and often they did not wait to be asked for a favour. Like the butcher or the man who sold Tabitha John her furniture, they provided assistance readily if they could, knowing that the men and women who purchased goods from them were not merely loyal customers, but friends. Where people owned their own businesses, they did not have the luxury of remaining detached, forcing someone else to deal with customers and enforcing a strict protocol while they remained focused on profits.

Of course, there were certainly crafty or unscrupulous shop owners like the ones denounced by the Women's Co-operative guild: those who unloaded their inferior goods onto the customers paying on credit, further indebting them and selling them less or charging them more than if they paid with cash. Some shop owners would create saving schemes and "clubs" where a certain percentage of the money had to be spent at the shops of other local merchants by previous arrangement.[377] Others were highly opportunistic, offering the population that they served certain advantages while exploiting them in other ways. A fine example of this type of shop owner is the one for whom Mrs. Layton worked when she was ten. This lady offered her customers the chance to pawn items in exchange for food, a much-used service, despite the risk to her: "The practice was illegal, so all articles had to be brought in when no one was about, and I was trained to help smuggle things in," writes Layton. This same woman would also cheat her customers by giving them short weight on goods. An innocent Mrs. Layton "was being carefully taught how to weigh bread. I was told when I put a piece of bread on the loaf as a makeweight I was to be sure to press it down, so that the scale went down."

The autobiographies, essays and interviews are full of examples in which local merchants act as neighbours did, as a reliable source of sympathy and support in times

[377] Margaret Llewelyn Davies, Mrs. Abbot and Mrs. Gray, "The Sheffield Enquiry and 'People's Stores' in Bristol, 1902 and 1905-1906," Papers of the Women's Cooperative Guild, LSE, Coll. Misc. 268 vol. 6 MF 70, pp. 15, 30 and 80-81.

of economic difficulty and upon whom labourers could depend to help them survive during periods when relying on income alone would have left them malnourished. While there were undoubtedly people who were unsympathetic to the difficulties faced by their customers, and who demanded payment for goods and services and would take back or stop providing said goods and services if they were not paid accordingly, I have found no examples of this kind of behaviour. There are stories of cruel and unsympathetic employers, factory supervisors, Poor Law Officers, masters of apprentices, mistresses of domestic servants, and teachers.[378] One explanation for this difference in treatment could be that this is an example of the superior classes either lacking compassion due to their inability to relate to labourers or using their positions of power to oppress the classes below, and that a strong relationship between merchants and customers was an example of conscious working-class solidarity. The kindly behaviour of merchants also makes sense from a purely rational economic perspective. Labour was cheap, but businesses in poorer areas, especially one that did not supply goods of the best quality and faced competition from other stores, had to maintain customer loyalty and a good reputation. They depended upon a clientele living hand-to-mouth that would inevitably face unemployment or illness and could never guarantee solvency. Whereas economic conditions afforded employers the luxury of treating workers as if they were expendable, merchants and shopkeepers knew better than to take their patrons for granted.

Shopping

The process of purchasing food, the habits, the stratagems, as well as the availability of certain foods played a major role in what women ate. Even when

[378] See *Life as We have Known It* and Lucy Luck's *A Little of my Life* and for some very detailed examples of cruel Poor Law officers and exploitative masters and mistresses; also see Tabitha John's *Tabitha: the Story of a Llannelli Character* for some graphic examples of teacher cruelty.

families were very self-sufficient, purchases still had to be made, and the thrift exercised by women made an enormous difference to the total amount of food eaten by a family in any given week and likely contributed to the inordinate amount of responsibility and worry placed on women.

In urban areas, the primary shopping trip of the week was usually done on Friday or Saturday nights after husbands were paid, with small purchases being made throughout the week. One man born in Colchester in 1897 reported to an interviewer that shops staying open late at night was "easier" and made his family's "hand-to-mouth" existence possible. "Shops didn't close till nine o'clock on Saturday night. Many received wages on Saturday, so you had to buy groceries on Saturday night."[379] In some rural areas, travelling vendors came through all week. Arthur Went remembered peddlers providing paraffin, candles, meat, oil, shoelaces, "They used to bring everything round – you didn't want to go to town for anything really."[380] Especially self-sufficient families with farms or large gardens might shop even less frequently: A woman born in 1857 told her interviewer that although she went to Swansea market to sell butter and wool to pay the rent, she "only bought three things from the shops for food, namely rice, tea and sugar." Several other women born before 1880 and interviewed by students of the College of Domestic Arts from various parts of south Wales also stated that family food purchases during their childhoods were limited to sugar and tea.[381]

Social investigators often made note of the frequent food purchases made by working-class wives (and if these purchases were of cooked, ready-to-eat meals, these women were generally acknowledged to be poor economic managers). For those in

[379] Interview with Mr. E. W. Wiffen, "Childhood and Family Life in Colchester from 1897," ERO, Essex Sound Archive, SA 12/508/1&2.
[380] Interview with Arthur Went, ERO, SA/8/1881/1.
[381] Mrs. Jane Lewis, interviewed by Catherine Davis, December 1960, MWL, LL 1027. Also LL1016 and audio tape transcript 7825 Elan Valley.

urban households who purchased the majority of their food, there were several viable reasons for frequent shopping. In her address at the annual Women' Co-operative Guild meeting, Catherine Webb emphasized that the working poor, who were the co-operative movement's target consumer group, would not enter the shops if they could not afford the portion in which the food is sold or if they did not have enough storage space in their homes for large quantities of groceries. In her attempt to persuade individual stores to offer smaller and smaller quantities to customers, she also acknowledges the ideological reasons for not selling larger quantities at a cheaper price-per-item rate:

> The circumstances of the poor demand that small parcels of goods shall be sold to them…Then, too, it seems absurd to charge the poor at a higher rate than those who can afford more; for instance, why should one pay a penny each for two purchases of soap powder, when she who can afford to buy two at once pay but three-halfpence for the two? [382]

While selling larger volumes of a good at a cheaper price per unit is a common capitalist stratagem to encourage people to spend more, as well as making some economic sense in terms of packaging and delivery costs, it is a practice which favours the wealthy, and it was at odds with the philosophies of the Women's Co-operative Guild. In 1896, the Economic Club published a study based on individual family account books and questionnaires, compiled by the family or an observer collected over a period of three years. In this study, the authors investigated the effect of this practice of selling smaller units at a greater price on the poor. They asked the question "To what extent is loss to the small consumer caused by the necessity of purchasing in small quantities?" and found:

> The widespread and well-founded notion is, that the loss is considerable and inevitable, but such a passage as the following reminds us that there is another side to

[382] Catherine Webb, "Improving the conditions of domestic life" delivered June 13 1893, Women's Cooperative Guild, LSE, Coll misc 268 vol.1 MF 69.

> the question: in Monograph No.1, for instance, the compiler, who states elsewhere that the only commodity in which the wife thinks much loss is incurred through her small purchases is coal, writes as follows: — 'The children are not old enough to earn money. The boy of eight is, however, sent to do small errands. He is found to receive sympathetic attention when he has a farthing or half-penny to layout; while his father and mother would often be told that orders of such small value cannot be executed. When there is no definitive measure for a "ha'porth" his parents think he gets the benefit of the doubt.[383]

Clearly, working-class women (and often men, as in this instance) were well aware of the ways in which their poverty put them at a variety of disadvantages and made creative efforts to overcome them. The Economic club also offered another reason for women wishing to purchase items in smaller quantities:

> There is also a widespread opinion among housewives that the danger of greater consumption arising from the possession in the house of large quantities is almost certain to follow. This is most likely to happen in the case of attractive articles of food unless the wife is careful in management. One case, e.g., has come before the notice of the Committee in which the wife intentionally bought very small quantities of jam because of the rapidity with which her husband made it disappear if a larger quantity were put upon the table.[384]

Ellen Ross acknowledges the possibility of families eating the next day's meal as a reason for daily shopping and reminds readers that, "With perishable items like meat, it reduced the risk of spoilage. On a hot weekend in June 1895, a Homerton housewife unwittingly demonstrated the advantages of daily shopping for small amounts. She had bought enough meat for a large pie intended to last for two days, but created a tragedy when her family of nine became deathly ill with food poisoning. The pie intended for the second meal had obviously spoiled overnight."[385]

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[383] The Economic Club, *Family Budgets: being the income and expenses of twenty-eight British Households 1891-1894* (London: P.S. King and Sons, 1886) 8.
[384] The Economic Club, *Family Budgets*, 8.
[385] Ross, 52.

Conclusion

In order to understand what working-class women were eating, or not eating as was often the case, it is necessary to be aware of the foods and methods of preparation that were available to these women and their families and how this availability fluctuated during the course of the nineteenth century. Budget studies and the reports of social investigators, while valuable, are insufficient; first-hand accounts of meals in working-class households are necessary to understand the variety of foods consumed and the full extent of periodic dietary restriction and deprivation. By being sensitive to regional variations in diet and to the alternative methods of acquiring food to which women and children had access, such as gleaning, poaching, payment-in-kind, gardening, animal husbandry and credit, one can have a more complete understanding of what constituted women's diet, of the reasons behind their food choices, and of their struggles to provide food for their households. By exploring these factors, and focusing on the foods that women were reported to have consumed in the greatest amounts, such as bread and tea, one can get an idea of the nutrition that women were receiving and which foods not listed in shopping lists or budgets may have supplemented the large amounts of starchy carbohydrates they consumed. Also, it is evident that food-denial was just one of many strategies that women employed to keep their families fed during times of scarcity. The following chapters will address the various reasons why food-denial and unequal distribution were particularly popular and well-reinforced practices throughout the century.

Chapter 7

Femininity and Food: Gender Associations and Unequal Consumption

Ah has tole you an' tole you dat you kin allus tell a lady by dat she eat lak a bird. An' Ah ain' aimin' ter have you go ter Mist' Wilkes' an' eat lak a fe'el han' an' gobble lak a hawg.
-Mammy, *Gone with the Wind*

One factor that appears to have contributed to working-class women's unequal consumption is the upper- and middle-class emphasis on non-consumption as an indicator of femininity. While the pressure of upper- and middle-class eating traditions may not have created the link between non-consumption and femininity in working-class consciousness, evidence suggests their growing influence over the course of the century may have reinforced it. This chapter does not mean to suggest that upwardly-mobile working-class women starved themselves to emulate their social superiors; its purpose is to give an overview of the cultural values which encouraged food refusal, and the refusal of certain types of food, as a socially appropriate act. The idea that food-denial is "womanly" has a long-standing, cross-cultural history but it seems to have gained particular favour among the working classes as middle-class expectations concerning eating, feeding and dining became increasingly expressed via those who had contact with the working-class such as social investigators, government inquiries and maternity nurses.

The prevalence of this belief that possessing or displaying a large appetite was unwomanly is indicated by Dr. Chavasse's complaint in 1889 that "Some ladies declare that they are always cold; their feet especially which are as cold as ice! The fact is they not only do not take exercise enough, but they do not take nourishment enough – breakfast especially – to keep them warm. Many ladies really and truly half starve themselves; they consider it to be vulgar to eat much, and satisfy their

appetite!"[386] However, Chavasse's advice was up against generations of contrary messages delivered to young women of wealth, as addressed by Joan Jacobs Brumberg in *Fasting Girls*. Brumberg writes that in 1857, the editor of *Godey's Ladies Book* told her readers that it was "always vulgar to load the plate," and sentiments such as those attributed to Lord Byron – that "a woman should never be seen eating" – constantly warned readers that "to be hungry, in any sense, was a social faux pas."[387]

Brumberg considers the meaning of appetite to Victorian women in *Fasting Girls*, and writes: "In Victorian society food and femininity were linked in such a way as to promote restrictive eating among privileged adolescent women...Displays of appetite were particularly difficult for young women who understood appetite to be both a sign of sexuality and a lack of self-restraint." Not only were women encouraged not to eat, but they were encouraged to deny themselves foods that were considered particularly unfeminine. Meat was (and remains) the most masculinised of foods.[388] Brumberg writes, "No food (other than alcohol) caused Victorian women and girls greater moral anxiety than meat... Meat avoidance was tied to cultural

[386] Pye Henry Chavasse, *Advice to a Wife*, 16.
[387] Joan Jacobs Brumberg, *Fasting Girls*, 176 and 179.
[388] Only 2% of British men surveyed in 2001 were vegetarian compared to 7% of the women surveyed (National Diet and Nutrition Survey 2001, Vegetarian Society Statistics, The Vegetarian Society, results of the National Diet and Nutrition Survey 2001, <http://www.vegsoc.org/info/statveg.html> accessed 20 Nov 2004). Men are nearly twice as likely as women to grill meat at charcoal and propane outdoor barbecues (State of the Barbecue Industry Report, 12 March 2007 <http://www.hpba.org/fileadmin/News_Releases/BBQ_Press_Releases/2007_State_of_the_Barbecue_Industry_Highlights-FINAL1.pdf>, accessed 11 May 2007.) A recent article in an Australian newspaper exposes how carving meat remained (perhaps remains?) a masculine preserve into the twenty-first century by declaring: "It's odd that the capacity to carve with confidence seems to have disappeared faster than you can say boneless turkey. Our dads could do it, and so could theirs. They would have considered it a pleasure – perhaps even a right – to display their carefully learned carving skills at the table." (Judy Adamson, "A Turkey's Guide to Carving," The Sydney Morning Herald Online (December 20, 2003) <http://www.smh.com.au/articles/2003/12/19/1071337149522.html?from=storyrhs > accessed 14 Nov 2005).

notions of sexuality and decorum as well as to medical ideas about the digestive delicacy of the female stomach."[389]

Dr. Chavasse's advice inadvertently supports this idea of female digestive delicacy, and most likely undermined his suggestions to satiate one's appetite. He writes:

> If a young wife be likely to have a family, let her continue to live heartily and well, but if she has been married a year or two without any prospect of an increase, let her commence to live abstemiously on fresh milk, butter-milk, bread, potatoes, and farinaceous diet with very little meat and *no stimulants whatever*; let her live indeed very much like a poor curate's wife or as a poor Irish woman is forced to live.[390]

Dr. Chavasse's suggestions indicate that a woman trying to become a mother, and therefore, one who is trying to fulfil her "natural role" should eat a diet very similar to the "low diet" prescribed to invalids. This diet is also remarkably similar to the nursery diet of bread and milk and farinaceous foods. "Thus, Mr. Libby, founder of the London 'Referee' Dinner Fund maintained that 'Bad nutrition arises in this way, that the mother of the family cooks for the father, she does not cook for the children, and the children all have to eat that the father eats."[391] Petty writes, "The notion that all members of the household should share the same food after infancy was alien to

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[389] Brumberg, 173-174.

[390] Chavasse, 23; while this quotation suggests that poor women subsisted on a poor diet because they were "forced" to do so, not because they were complicit in their own deprivation, I state again that poverty *is* the ultimate factor forcing women to suffer nutritional insults, however, many other factors, among them women's self-discrimination, contribute to *unequal* nutritional deprivation. See the introductory paragraph to **CHAPTER, Food in the Home PAGE** above. Chavasse was *extremely* insensitive to class issues, and his comments quoted above indicating his views that rich women had less children than those who were poor due to the health effects of their lifestyle rather than any intentional effort at family limitation, and his erroneous biological belief that poor women regularly gave birth to quintuplets suggests that claims made by Chavasse, especially any broad generalizations about how working-class women lived, should be considered suspect and not taken at face value.

[391] E. C. Petty, "The Newer Knowledge of Nutrition," PhD: London School of Hygiene and Tropical Medicine, 1987, 37.

the middle-class observers of the poor."[392] Just as the nursery diet is different from what the "father" eats, because the child's system is deemed incomplete, and just as an invalid receives a low diet without anything "stimulating" or "rich" or "heavy" because his or her digestive system is not working properly, women trying to conceive are put on this diet because their body is not performing its "natural" function. Nor is a healthy woman allowed to partake of meat. Brumberg writes:

> Using the machine metaphor that was popular in describing bodily functions, [doctors] likened a man's stomach to a quartz-crushing machine that required coarse, solid food. By contrast, the mechanisms of a woman's stomach could be ruined if fed the same materials. The female digestive apparatus required foods that were soft, light and liquid.[393]

Apparently a female digestive system was not suited to digesting meat, just as an invalid's and children's digestive system could not digest things such as fruit, etc. Therefore, the only digestive system that functioned the way a digestive system was intended to function was one belonging to a male. The female's organs were deemed childlike, or sickly, and only men were biologically equipped to satisfy any appetite or cravings they might have.

Working-class women internalised the association between meat and masculinity. Evidence from Yorkshire, Lancashire, and Wales indicates that early in the century, when the working-class diet strictly consisted of variations on bread and milk, potatoes and milk, or oats and milk, portion sizes were standard among members of the family and no special "extras" were given to the head male of the household. Although it is possible that nobody felt the need to mention what they considered to be a given, the first description of fathers getting preferential treatment in the form of larger portions or additional viands comes later in the century, mostly

[392] Petty, 39.
[393] Brumberg, 171.

from urban-dwelling members of the working-class, and only once improved variety (via improved standard of living, increased availability, etc.) permitted a father's meal to be supplemented by an added treat – usually in the form of meat, but also fish, prawns, cheese, etc.[394]

Something never wholly considered by proponents of the "breadwinner effect" are the social and gender connotations of meat. For example, Victorian historian Daniel Pool declares without hesitancy in his wide-sweeping overview of the nineteenth century that the working man received bread and bacon "while his wife and children often had only the bread – the breadwinner being the one who needed to keep up his strength."[395] While Victorian and Edwardian social investigators like Maud Pember Reeves, the Committee on Physical Deterioration, and historians such as Pool and Burnett all note the significance of the meat as being the property of the male presiding over a meal because of its nutritional value, none have explored how the wife/mother's understanding of, or relationship with, meat may have perpetuated this phenomenon. Ellen Ross comes particularly close, suggesting that meat marked gender distinctions and was offered to a husband by his wife to make him feel "manly" and appreciated, and to acknowledge his privileged place in the household. But she does not consider the wife's relationship to the meat and the affect that would have had on her decision to serve her husband all of the flesh food and none to herself. Once meat had become affordable and available enough to be added to the daily (or weekly) working-class diet, but in insufficient amounts to allow everyone to partake, perhaps the wife/mother served her husband all of the meat, not because he was a man, but because she was a woman.

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[394] See Chapter 6 on regional variations in distribution of food/dining rituals and how these variations developed to give men more protein throughout the 19th century.
[395] Daniel Pool, *What Jane Austin Ate and Charles Dickens Knew: fascinating facts of daily life in the nineteenth century* (London: Robinson, 1998), 204.

Childhood testimony suggests that meat's association with masculinity was illustrated for the family to see. In an interview, Arthur Went, born in Essex in 1903, told his interviewer that "[Mother] used to say sometimes if she was short on the meat, well, there's only enough meat for those that got to work – that's one or two of me elder brothers and dad..."[396] Arthur was one of thirteen children (seven boys and six girls), and Arthur's exclusion of his sisters from among those who received meat is interesting as, at some point, they were wage earners as well. Of course, not knowing their ages or birth order, his sisters may still have been in school during the time he is describing (and therefore not yet wage earners) or they may have been older than Arthur and not present at family meals, as Arthur informed his interviewer that all of his sisters went into domestic service once they finished school. Regardless of the circumstances, eating meat was a privilege forever associated in Arthur Went's memory with gender as well as with earning money. How then, can one be sure that women's offering of the weekly meat to their husbands had as much to do with their reluctance to eat meat as it did with their belief that meat was a man's right? One cannot be sure, but there is evidence to suggest that women had internalised middle-class notions of certain foods being "women's foods": foods that were dainty, delicate and easy to digest. While women and children did partake of the non-meat food, which was often the kind of food deemed more easily digestible, more delicate, etc., this food eventually became synonymous with childhood and femininity. Tim Richardson claims that associations between sweet foods and femininity went back as far as Greek civilisation:

> Even the Spartans had a sweet tooth, evinced by Alcman's seventh-century BC account of a banquet with "seven couches and as many tables crowned with poppy-seed bread, with linseed-bread and sesame bread and, for the girls, buckets full of

[396] Arthur Went, ERO, SA 8/1881/1.

> honeysweets." This mention of honeysweets – called *khrysokolla* (literally "inlaid with gold"), made of honey and flax-seed – is the first in which sweets are explicitly and patronisingly linked with women.[397]

Sweetness was so associated with femininity and childhood in the nineteenth and early-twentieth centuries that in 1901, the Women's Co-operative Guild challenged sugar tax legislation on the grounds of gender discrimination and poverty-exploitation:

> The Tax on Sugar. – That this Congress protests against the tax on sugar which falls most heavily on working women and children; and wishes to express its strong disapproval of taxing a staple article of food, instead of so adjusting the burden that wealth in various forms bears its fair share.[398]

Based on the wording of this declaration, it is apparent that the Guild, comprised itself of working women, viewed sugar as a staple of the diets of women and children only – no mention of men. And whereas the "gender" of sugar made women feel so entitled to consume it that they protested its taxation, they apparently felt no entitlement to meat, which contributed to its absence from working-class women's plates, just as much as their perception of men's right to consume it did.

The masculine gender of meat and the idea of non-consumption being "feminine" have survived and confirm the importance of these concepts to nineteenth-century working-class women. A study done in 1988 suggests that the connection between femininity and non-consumption still exists, and the authors consider meat's role as a masculine food as a possible reason for the differences they discovered in intra-family food distribution:

> It is also interesting that women denying themselves food in the form of missing meals, to a greater extent than men, occurs throughout the class structure and is not

[397] Tim Richardson, *Sweets: A History of Temptation* (London: Bantam Press, 2002), 77.
[398] Nineteenth Annual Report of the Women's Co-operative Guild, April 1901-1902, LSE, Coll. Misc. 657 vol. 3 MF 67, pp. 24-25.

> limited to families on low incomes. It is also not limited to women who are currently dieting. Interestingly in families where men were unemployed both the adults reduced their food intake while maintaining that of their children. In single-parent households, on the other hand, more women were able to eat three meals a day. This suggests that women's self-denial might be more frequent in families with men present, and that it may relate to men's supposed need to eat meat.[399]

Charles and Kerr, who pioneered this study describe their findings concerning women's relationship to food in the context of the family as the "contradictions of self-denial." Essentially, Charles and Kerr discovered that current unequal distribution of food within the home arises, not out of a desire to become slim, but because of a feeling of guilt over the enjoyment of eating. The authors describe this as a "vicious contradiction," and interpret their findings to mean that, while men are supposed to enjoy food, it is the woman's goal and responsibility to create food that her husband and children will enjoy eating – that it is her *raison d'etre* to create enjoyable food, but not to find it enjoyable herself.[400]

If this contradiction existed in the consciousness of the nineteenth-century working-class wife, she would have felt guilt for eating, not only for being a female satisfying an appetite, but for satisfying it at the expense of her children, whom her "role" dictated she nurture through feeding as one of the highlights of her motherly life. The association between food preparer and femininity was just as important as that between femininity and food-denial. Hannah Mitchell describes the pressure she faced, from both her husband and her sisters-in-law, to conform to their image of an ideal working-class wife via her cooking skills. Mitchell writes:

> Not being one of those happily constituted souls who enjoy cooking, I found no pleasure in it. My husband was one of a large family whose mother had been what is called a 'born cook.' Poor Soul! I never knew her. Child bearing and cooking for

[399] Nickie Charles and Marion Kerr, *Women, Food and Families* (Manchester: MUP, 1988), 180.
[400] Charles and Kerr, 151-154.

> twenty years, a widow with ten children to care for, the youngest mere babies, she must have been worn out before she died a comparatively young woman. *So* I was definitely determined not to begin where she left off. My sisters-in-law were all superb cooks, and the whole family were fond of rich meals. There not being much feeding to be got out of a pound a week, neither they nor my husband thought much of my efforts on the kitchen front.[401]

Not only was one a good mother because one fed all others in the household before herself, but she was a good wife and mother for refusing her own portion. When using food-denial to make ends meet, a working-class wife was epitomizing womanhood and virtue by preparing a meal and then not partaking in it. Such a reality was a strong incentive for food refusal appealing to a woman's sense of femininity and her desire to perform her role of mother to the best of her ability.

[401] Hannah Mitchell, *The Hard Way Up*, 96-97.

Chapter 8

"Something going short in the home": Class, Respectability and Unequal Consumption

The wider social forces influencing individual women's food denial cannot be ignored. As illustrated in the previous chapter, nineteenth-century gender associations with food were an important contributing factor to the persistent practice of female food refusal among working-class women. In this chapter, the influence of middle-class behaviour and the collective goal of the nineteenth-century working class to achieve "respectability" on female food refusal will be explored.

The key to this exploration of women's unequal consumption is asking why personal denial of food was the chosen method of influencing household economics and securing familial affection and why it was so effective. Also, this chapter will attempt to explain why food refusal was the chosen method of preparing for a pregnancy, softening the blow of sudden unemployment and making ends meet. Why reduce personal consumption rather than risk other things "going short in the home,"[402] especially when pregnant or lactating? This section will examine the class associations of certain foods and the manner in which they were prepared, served and consumed, as well as the way in which these associations changed over the course of the nineteenth and into the twentieth century.

Much of this chapter will be dedicated to illustrating why maintaining respectability was so important to working-class families, which is necessary to explain women's fierce dedication to it. Appearing "respectable" secured working-class families' position in a supportive economic community network. Because this

[402] *Maternity*, 41; see 90 above for full quotation.

network was so vital to many families in vulnerable economic situations, women were willing to make many sacrifices to maintain it. Therein lies the rub: "respectability" was achieved and preserved by upholding strict standards of behaviour and appearance. Financial or behavioural sacrifices that were visible to the community and brought one below the standards of respectable action or material wealth could, therefore, not be used to preserve a respectable reputation. In other words, in some communities, activities such as pawning or going into debt were not respectable. Therefore, they could not be used to secure a respectable material standard of wealth, or they would result in the tarnishing of one's reputation. Similarly, trying to live within one's means or save money by disregarding material wealth and not maintaining an outward standard of appearance (e.g. a clean, well-maintained home, clothing and shoes of a good condition, etc.) was also not an option if one wanted to preserve a respectable standing. In this way, women's food refusal as an economic strategy was ideal for walking this fine line of maintaining both a respectable appearance and reputation. It worked as a strategy for two reasons: women could nutritionally stint themselves to save for material items of respectability as nobody outside of the family witnessed the sacrifice; and if anyone did witness it, because of the associations of food denial with femininity and virtue discussed in the previous chapter, women were spared their reputations and often received the sympathy of the community. This chapter suggests that nutritional self-denial and the maintenance of respectability mutually reinforced each other, and therefore this phenomenon contributed to the perpetuation of unequal consumption and women's nutritional deprivation.

Before launching into the theoretical implications of food, femininity and motherhood, the sheer practicality of choosing food as the method of securing family

loyalty and cutting costs must be re-examined. In order to address the reduction of personal food consumption rather than the reduction of household expenses in other areas, it is vitally important to consider the effect that maintaining the pretence of a respectable standard of living had on a woman's decision to distribute her family's food unequally. While it is hard to imagine a woman starving herself so that she had black lead for the stove or curtains, when women went short of food during pregnancy to save up for new bed linens on which they would birth their child, respectability was the motivating factor: "I often feel, too, how hard it is that when a woman is carrying, and needs extra nourishment and rest she has to stint herself, to provide for the expensive time coming or try and add to her household linen…"[403] Even when heavily pregnant or suffering deprivation due to economic stress, respectability was at the forefront of the minds of many working-class women. When describing the financial situation she found herself in after paying an attendant for her confinement, one woman in *Maternity* wrote, "After I paid her and my rent and coals we had no dinner the Sunday simply because we could not afford any. I always tried to get on and keep us all respectable, but it was hard work."[404] Another woman wrote that to maintain the appearance of her household (presumably the family's respectability) before the midwife arrived for delivery "I would do my house-cleaning all myself, for naturally at these times you like to feel everything is in order when the strange woman comes in to take charge."[405]

The working class's preoccupation with respectability was widespread and entrenched, as it was the criteria (along with husband's occupation) by which the community social hierarchy was created. Public behaviour, household possessions,

[403] "Preventatives," *Maternity*, 95.
[404] "Very hard times," *Maternity*, 76-77.
[405] "I dragged about in misery," *Maternity*, 33.

family secrets all contributed to each family's respectability ranking and, as was always the case, serious effort was required to maintain this ranking on a low income. About his childhood neighbourhood in a Manchester slum, Robert Roberts wrote: "Class divisions were of the greatest consequence, though their implications remained unrealized: the many looked upon social and economic inequality as the law of nature…On the whole, most families were well aware of their position within the community, and that without any explicit analyses. Many households strove by word, conduct, and the acquisition of objects to enhance the family image and in doing so often overgraded themselves."[406] What may seem like a petty obsession was actually a working-class reality with major economic implications. As stated earlier in chapter three, good neighbourhood relations were of the utmost importance for a working-class woman managing her family's finances. From a strictly economic perspective, maintaining the respect of neighbours, extended family, local business owners and shopkeepers was absolutely necessary. Neighbours and relatives provided loans, free childcare, and nursing during illness.[407] Shopkeepers often allowed women to buy goods on credit, or provided families with the opportunity to pawn household items for provisions.[408] By preserving the outward appearance of respectability, a wife and mother was not merely adhering to social convention, but retaining the good faith of those in the community who would comprise her safety net should hard-times befall her family.

Elizabeth Roberts examines this notion of respectability and what it meant for nineteenth-century and early twentieth-century working-class women in her classic

[406] Robert Roberts, 17 and 23.
[407] Elizabeth Roberts, *A Woman's Place: an oral history of working-class women 1890-1940* (Oxford: Basil Blackwell, 1984), 151.
[408] For interesting reading on this, see the Liverpool Economic and Statistical Society's *How the Casual Labourer* Lives (Liverpool: Northern Publishing, 1909), xvi; for an autobiographical account of a shopkeeper's system of pawning see Mrs. Layton, "Memories of Seventy Years," *Life as We Have Known It*, 21.

work *A Woman's Place: An Oral History of Working-class Women 1890-1940*. She writes:

> Social historians studying the working class in the recent past, are almost overwhelmed at times by the total devotion and dedication shown towards the concept of respectability. It can be seen in the lives of almost all members of the working class, even in those who in the eyes of others were 'rough'. To be 'respectable' was in its original sense, to be respected, and in closely-knit communities, it was very difficult to live comfortably without the respect of one's family and neighbours.[409]

Roberts continues to express her wonder at the ephemeral and seemingly superficial nature of those things that indicated respectability, such as stoning one's sink and one's flagstones. Stoning, a process, by which a chalk rock was rubbed over a newly scrubbed basin or front step, scraped off soap residue and coloured the surface white – an effect which disappeared the moment water touched it. One of Robert's respondents described how a newly stoned sink or back garden remained white for mere minutes before young children marred its pristine appearance, but that nevertheless "it still had to be stoned."[410] Similarly, regarding the restriction of bathing practices for menstruating girls (which happened to be similar for women who had just delivered a child[411]), Roberts comments on the well-noted eighteenth- and nineteenth-century belief that washing one's face and hands were sufficient for daily cleanliness: "Here is the commonly observed, unthinking devotion to outward, and ephemeral, appearances, and superficial (if not basic) cleanliness."[412] Several of Elizabeth Roberts's respondents described how they were taught not to bathe or wash their hair during their monthly period. They were also taught to keep their menstruation a secret by hiding the soiled cloths as they soaked them. One woman

[409] Elizabeth Roberts, 14.
[410] Elizabeth Roberts, 23
[411] "I was awfully poor," *Maternity*, 32; Mrs. Layton, *Life as We Have Known It*, 31.
[412] E. Roberts., 23.

was given no cloths by her mum, only a single pair of navy blue pants to be worn for the duration of her courses, another was told "'Never let your brothers see this, whatever you do.' She drummed it into me." Menstruation was hidden from family members in much the same way as pregnancy was hidden from children and general society. Elizabeth Roberts writes, "This lack of hygiene contrasts forcibly with the great emphasis placed on cleanliness of those parts of the body seen by the outside world, notably the hands neck and face."[413] Her observation that what "is seen by the outside world" was of the greatest concern to Victorian and Edwardian wives is extremely relevant. While it is easy to understand that before the widespread understanding of germ theory, what looked clean was essentially believed to be clean, the significance of this behaviour and its relationship to female food refusal lies in the necessity of maintaining respectability in the eyes of others. Nineteenth-century women were raised to believe that what was presented to those eyes was of the utmost importance, and that strict adherence must be paid to the rules of public appearance. Private needs were automatically subordinate to satisfying the requirements of presentability and respectability. This example of behaviour during menstruation is especially relevant. From puberty, Victorian and Edwardian working-class society essentially taught its daughters that their reproductive health and comfort were of secondary importance, if of any importance at all, to keeping others ignorant of their condition. Denying themselves the nutrition that their pregnant bodies required and suffering from the symptoms of pregnancy in silence while maintaining a home and everyone else's customary portions of food is entirely in keeping with the "training" these women had received from adolescence. They neither expected nor requested sympathy for their condition because it was supposed to be a non-issue. If they could

[413] Ibid., 17-18.

not even mention their pregnancy in front of their families, how could they then lay claim to the food required as a result of their condition at mealtimes?

Thus, respectability and the appearance of normality trumped reproductive health and comfort, and reducing food intake rather than allowing something to go short in the home was a method of cutting spending without necessarily risking family respectability. The rules of respectability worked in favour of this arrangement. A meal was a family affair, which, in "respectable" working-class households, meant excluding outsiders from dining with them. Guests were rare at urban working-class meals, with most socialising being done out of doors, at pubs, or at home in the evening after tea had been served.[414] Robert Roberts wrote of families asking neighbours to leave before meals or refusing them entry during mealtimes in his early-Edwardian neighbourhood and suggested, "These practices may have originated in efforts at hiding from the world how little there was to eat." He added that men and women were often embarrassed to be observed eating, and in a footnote revealed that one reason, offered to him in confidence, was the fear of not having the proper manners for dining in company.[415] Anna Davin's research supports this. She writes:

> [Respectable] children were well-mannered…They had to ask if they could go out, say where they were going and with whom…They were seldom allowed to visit other children's homes or to invite others in. Rough children on the other hand, could go anywhere, including in and out of each other's houses…they could come into eat at any time, or feed themselves from a fried-fish or pie shop or shellfish stall; it did not matter if they went barefoot or got dirty, and their language might be coarse.[416]

In this manner, the sacrifices in nutrition that a woman made to balance the family budget in the privacy of her own kitchen often remained a secret. An example of food

[414] Derek Oddy, "A Nutritional Analysis of Historical Evidence: The Working-Class Diet, 1880-1914," *The Making of the Modern British Diet* (London: Croom Helm, 1976), 218.
[415] Robert Roberts, *The Classic Slum*, 116.
[416] Davin, *Growing Up Poor*, 71-72.

denial (albeit a rather superficial one) to preserve respectability was given by Arthur Went to his interviewer when describing occasions in his household when there were visitors, but not enough cake to go around:

> We used to have cake, once a week, on a Sunday…often Sunday tea…And I have known the time when we've had company come. And she [mother]'s said, "Now look, don't you ask for a second piece tonight or I shall punish you." And we'd know what to do. But I tell you what, we appreciated that bit o' cake.[417]

In extreme cases, when word of her poor meals escaped, rather than losing the respect of her neighbours, she gained their pity and esteem. In her autobiographical essay, Mrs. Layton offers an example of this, occurring in the early 1860s:

> I remember one Christmas the mother of a poor family in the street did not take any dinner to the bakehouse, and it was found out afterwards that all they had for their Christmas dinner was a piece of bread and a pound of sprats. I could not get over the shock of anyone so near having such a miserable Christmas dinner and I worried my mother so much that at last I had to give up talking about it or get a good thrashing. It is a good thing we are not permitted to look into the future, or I might have seen myself twenty years later without the means of getting even a pound of sprats for Christmas Day.[418]

Rather than losing face in the eyes of their neighbours, the family without a Christmas dinner gained the sympathy of the neighbourhood by attempting to hide their poverty and by not actively seeking financial support. A mother who was caught reducing her consumption, or who had to "make do" by cutting back on food expenditure continued to epitomise the virtue of sacrifice and retained her reputation.

Just as the failure to secure enough food could be concealed by the rules of respectability governing meal practices, other elements that contributed to a woman's lesser consumption were also permitted and reinforced by the rules of respectability. One such example would be her role as the server of the meal; a role which, as

[417] Arthur Went, ERO, SA 8/1881/1.
[418] Mrs. Layton, "Memories of Seventy Years," *Life as We Have Known It*, 15.

discussed in the following chapter, encouraged a woman to be the distributor of food, but not a consumer. Davin writes: "Generally speaking, the more respectable a family was or wanted to be, the more strictly it was run. Ideally, it had regular meals, where all members, or most, were present at the table, to be served by the mother and ruled, usually, by the father."[419] This model of meal-taking was not only respectable, but also a sign of upward mobility. Eating three meals a day in the morning, noon, and evening, evolved in response to the middle-class work schedule. Meals at which every member of the family was present would have been impossible for many families where children and fathers worked in certain occupations, such as mining, which did not allow for a man to return home for his dinner and possibly breakfast. But even if a family was incapable of achieving this element of upwardly-mobile meal etiquette, the respectable model placed the woman in charge of the distribution of food, and this practice was nearly universal (with the exception perhaps, of households without an adult female, one where the mother was temporarily absent, or for meals when meat needed to be carved and distributed).

Such was the case in Matthew Henry Sheffield's family. Sheffield, born in Coalville, Leicestershire in 1901, was one of 15 children. During an interview, he asserts that during his childhood, there were at most fourteen living in the house at once. When asked by the interviewer how his mother had managed to feed so many people, he responded:

> Oh that's a miracle that'll never be known cause... there was daughters, me sisters, all coming from the factory half-past twelve to one. She had to get a meal for them, and some of the miners were on the night work – they used to have their dinner at that time... Then there was us coming from school about four o'clock... we used to stay at

[419] Davin, 71.

> school for dinner... so she used to have to cook again for four o'clock time. So how she did it, well, I don't know how she did all that work.[420]

Other families did manage to have all members present at mealtimes, but this in itself often posed a problem for families with limited space and resources. The practice of standing around a table persisted well into the nineteenth century, due to space constraints and chairs being a rare commodity. Once some chairs were available in a household, it seems that arrangements were made so that everyone could sit, thus allowing a ritual of serving to take place. Matthew Henry Sheffield informed his interviewer: "Well…what I remember for a start was that there was two sitting downs at the table, we had to sit back, the young ones, while the other older ones had the first course, the first meal, and then we had our meal."[421] "An interesting point to note in Mr. Jones' history," wrote one student interviewer of a man born in 1892, "was that the family took their food in relays, because there was no room for the ten members of the family to sit at the small kitchen table at the same time."[422] In 1963, Mrs. A. H. Stratton, born near Cambridge wrote about her father for an Age Concern essay competition: "He was one of eight children of a farm worker, who earned 10/- a week, and they lived in a cottage so small that the younger children had to eat their meals under the table."[423]

The middle-class model of meal times and rituals trickled down to the working class over the course of the century, as indicated by the rising expectations of middle-class critics. In 1861, Mrs. Beeton, subscribing to popular beliefs regarding anatomy,

[420] Interview with Matthew Sheffield, Record Office for Leicestershire, Leicester and Rutland, Mantle Oral History Project, MA200/032/032.
[421] Interview with Matthew Henry Sheffield, Record Office for Leicestershire, Leicester and Rutland, Mantle Oral History Project, MA200/032/032.
[422] Museum of Welsh Life, LL1018.
[423] Mrs. A. H. Stratton, "My Mother and Father," Age Concern Essays, ERO, T/Z 25/499.

advised her readers not to let bread enter the undeveloped stomach of an infant[424] She writes, "Bread, though the universal regime of the labouring poor, where the infant's stomach and digestive powers are a reflex, in miniature, of the father's, should never be given to an infant under three months..."[425] In the middle of the century, the "labouring poor" were considered so fundamentally different from the middle classes that, far from being expected to consume what their social betters ate, their young were considered biologically dissimilar enough to consume food that their middle and upper-class counterparts would not be able to, quite literally, stomach. By 1904, the attitudes and expectations concerning working-class consumption had changed so drastically that the diets and meal-related rituals of labourers received heavy criticism from those interviewed by the Inter-departmental Committee on Physical Deterioration. Miss Deverell, junior inspector of schools to the Board of Education, considered the children she inspected to have a "plentiful, but unsuitable diet, taken at irregular intervals," while Dr. Eichholz, a member of the Inspectorate of Schools, when considering the primary problems of working-class children's diets, claimed that "There is the want of food; this is the first factor we have to recognize. Then there is the irregularity in the way in which they get their meals; that is the second factor."[426] Of the class-based criticisms levied in the Report, Elizabeth Petty writes, "it was claimed that the remedy for poor feeding entailed not only a change in food habits but also the adoption of middle-class behaviour..."[427]

[424] As different from a developing stomach. Nineteenth-century popular medicine believed that children's bodies were not merely growing in size, but were still forming and not yet fully functional, similar to the state of a foetus in the womb. See Daniel Pool, *What Jane Austen Ate and Charles Dickens Knew*, 205.
[425] Isabella Beeton, *The Book of Household Management* (London: S. O. Beeton, 1861), 1042.
[426] *Report of the Inter-Departmental Committee on Physical Deterioration*, List of Witnesses and Evidence, PP 1904, vol. 32 (Cd.2210), 20.
[427] Elizabeth Petty, "The Newer Knowledge of Nutrition," 37.

Just as many working-class families striving for respectability did their best to mimic middle-class dining practices, as described by Davin, certain behaviours and foods were so closely associated with the poor or the working class that they were avoided by both wealthy citizens and those of the working class attempting to raise their social standing.[428] For instance, Daniel Pool writes that, although the wealthier classes consumed various cuts of pork, "Its lower-class connotations kept bacon away from upper-class menus."[429] Not only did the upwardly-mobile working class adopt middle-class behaviour, they specifically avoided those foods and practices that were viewed as a signifier of working-class culture, or carried the stigma of poverty or the workhouse. As mentioned in chapter one, mushy foods, such as porridge and gruel were often linked with poverty and rejected by the urban poor despite the best intentions of those pushing for working-class dietary reform, leading to what Ellen Ross describes as the "oatmeal wars."[430]

Interestingly, and ultimately quite relevant, much of middle-class dining tradition developed as a reaction to how it believed the aristocracy and the poor behaved while consuming. While "three meals a day" may have resulted from the middle-class male's work schedule, the often reiterated "no snacks between meals" element of Victorian dining and feeding was largely an attempt on the part of the

[428] Davin, 71. See 167 above.
[429] Daniel Pool, 204.
[430] See 52 above; Ellen Ross, *Love and Toil*, 32 and 36. Ross uses the term "oatmeal wars" to describe the sustained tension during the last quarter of the nineteenth century faced by working-class mothers in London receiving pressure from health visitors, social workers, school managers and superintendents who wanted women to feed their families porridge, and from their families who resisted consuming it. Among the "economic" stews and gruels that members of the middle class suggested to working-class women in cookbooks and pamphlets, and during visits, lectures and mothers' meetings, Ross writes that porridge came to symbolize, for the middle class, the refusal of working-class families to better themselves and live within their means. For the working class, it symbolized middle-class interference and a reminder of their class inferiority. Ross credits Maud Pember Reeves as being the lone voice among social investigators who understood that women did not make porridge largely because the taste was foreign to Londoners, and because their families refused to eat it.

middle class to differentiate its children from those of the labouring poor. According to Valerie Mars:

> Eating, for the middle-class and upper-class Victorian child, took place only in the nursery, and only at prescribed times. The food of such a child was eaten within the constraining structure of an ordered meal, at the table; promiscuous eating, in the rare instances where it was allowed, gave the child some autonomy, and emphasised his individuality – all the more since sweets were often bought with his or her personal pocket money. Casual snacking, on the other hand, was associated with children who spent time on the streets where they could buy food from the many stalls and walking vendors. The denial of this latter form of autonomy to nursery children effectively emphasised their class exclusivity... Social division was thereby reinforced through the enforcement of structured eating habits: nursery children had to be separated from promiscuous outdoor eaters.[431]

As discussed in chapter one, middle-class fear of excess and the admonishment of gluttony were, to a large extent, a reaction against the perceived over-indulgence of the English aristocracy and a result of middle-class desire to seize the moral high ground of the class hierarchy. The use of food and eating practices by different groups to define themselves as separate social entities is a common sociological phenomenon. Often cultural rules about excess which set one civilisation apart from its neighbours are turned inwards by society to draw class distinctions. Jack Goody offers an example of this in his work *Cooking, Cuisine and Class* when he describes the "post-Restoration search for an English (i.e. Anglo-Saxon) cuisine, revealing an ambiguous attitude to the culinary influences of 'the continent,' a word that in itself invokes the ascetic purity of the island race surrounded by water, in contrast to the excess and indulgence of its neighbours." Goody claims that "widely applied to what other nations or religions eat, the concept of excess defines

[431] Valerie Mars, "Parsimony and Plenty," *Food, Culture and History*, 1 (1993), 155-56.

xenophobic attitudes...” and that this food-based “moral criticism may extend to the nature of society itself.”[432]

Strict rules governing the rituals of food consumption allowed the Victorian middle class to simultaneously define themselves and assert their moral superiority over the working class. Obviously, these dense class-related mealtime rituals and food associations certainly contributed to what women and their families consumed and how they consumed it. When a woman sacrificed her own nutrition to meet the economic and ritual requirements of mealtimes, she was acting within the boundaries of respectable behaviour while simultaneously maintaining or even raising the family's level of respectability. These reasons offer much insight into why women chose food distribution and self-denial to manage their homes and budgets. Growing criticism from health visitors and social commentators made the poor aware of the rituals of middle-class mealtimes and of their “shortcomings” around the dinner table. While some rejected middle-class models of eating as a matter of working-class pride, others adopted the roles of female server and male consumer, and the attitudes that accompanied these roles.

[432] Jack Goody, *Cooking, Cuisine and Class* (Cambridge: CUP, 1982), 145-46.

Chapter 9

The Communal Bowl and the Inverse Standard of Living: More Conspicuous Consumption, Less Nutritional Consumption

At length his lonely cot appears in view,
Beneath the shelter of an aged tree;
Th' expectant wee-things, toddlin, stacher through
To meet their dead, wi' flichterin noise and glee.
His wee bit ingle, blinkin bonilie,
His clean hearth-stane, his thrifty wifie's smile,
The lisping infant, prattling on his knee,
Does a' his weary kiaugh and care beguile,
And makes him quite forget his labour and his toil.

With joy unfeign'd, brothers and sisters meet,
And each for other's weelfare kindly speirs:
The social hours, swift-wing'd, unnotic'd fleet:
Each tells the uncos that he sees or hears.
The parents, partial, eye their hopeful years;
Anticipation forward points the view;
The mother, wi' her needle and her shears,
Gars auld claes look amaist as weel's the new;
The father mixes a' wi' admonition due.

-Robert Burns, *The Cotter's Saturday Night*, 1785

In his study of nineteenth-century working-class autobiography, David Vincent writes:

> Robert Burns' description of the tired labourer coming home to his welcoming family in *The Cotter's Saturday Night,* which is the most frequently quoted and imitated poem in the autobiographies, expressed an ideal which they all cherished. Yet few had any illusions about the realities of family life and some went out of their way to attack the middle-class stereotype of the home as an escape from the material world outside…The home was seen not as a refuge but as a cockpit, the arena in which the consequences of exploitation and inequality were experienced and battled with.[433]

While the evening meal described in *The Cotter's Saturday Night* was harmonious and cheerful, meals were often the setting for overt power-struggles and bitterness, or subtle coercion and manipulation. By exploring the dining-experience of working-

[433] David Vincent, *Bread, Knowledge and Freedom: a study of nineteenth-century working-class autobiography* (New York and London: Methuen, 1981), 55.

class families and the evolution of food distribution, two key reasons for the unequal consumption of food by working-class women become apparent: the ritualisation of serving and its internalisation, and the changing living standards of the working-class population during the nineteenth and early twentieth centuries.

An increase in the availability, affordability and popularity of crockery and dining utensils as material wealth grew may have played a surprisingly large role in the rise of the unequal distribution of food. Additional cutlery, crockery and cooking implements increased serving responsibilities, making women's tasks during and after mealtimes more labour intensive and more ritualized. The practice of a woman walking around a table distributing portions of food in servant-fashion has not always been a tradition of the British working-classes. A weaver's apprentice born in 1800 recalled meals at her master's house:

> Many things which one considered necessary in cottages now were not known then. We had no tablecloths, nor knives and forks, nor plates. For dinner, a large dish of potatoes was set in the middle of a clean table, and we all gathered round it, each with a basin of buttermilk and a spoon.[434]

Similar dining practices survived until very late in the nineteenth century in rural Wales. As in pre-industrial Macclesfield, meals were served by placing a bowl in the centre of the table from which those standing around served themselves. In Uwchmyndd, Lleyn, Caernarvonshire (Gwynedd), "uwd blawd ceirch" (oatmeal porridge) was often served in this manner: "The menservants in Lleyn, Caernarvonshire, and in many other districts in north Wales were given *uwd* for supper regularly every night. The cauldron was placed on a wooden stand on the centre of the table and the men expected to help themselves."[435] Several people interviewed by the College of Domestic Arts students indicated that this practice also

[434] Bridget Earnshaw, in Alfred Fryer's *Wilmslow Graves and Grave Thoughts from Wilmslow*, 94.
[435] S. Minwell Tibbot, *Welsh Fare; A selection of traditional Recipes* (Cardiff: National Museum of Wales; 1976), 54.

occurred in south Wales and in family households: Mrs. Hughes from Pontrhydfendigaid, Cardiganshire informed Enwen Evans that *sycan* (a smooth semi-solid dish – with a consistency somewhere between gruel and blancmange made from oat gluten - thinner than *llymru*, thicker than *bwbram*) was "poured into a huge bowl which was placed in the centre of the table with a wooden spoon so that everybody could serve themselves."[436]

John Wood, born in Bradford in 1802 into a very poor, Nonconformist family of handloom-weavers, offers a description of dining traditions in weavers' cottages at the start of his autobiography:

> The rules which were observed in partaking of their meals were of a most ludicrous character. The porridge or potatoes were served up in one large dish or bowl, and were placed in the middle of the table, the family placing themselves around, some sitting and some standing, each one being supplied with a spoon or a knife, without the use of a fork or plate. They proceeded to help themselves in the best way they could, the most active getting the best share. I just now remember a bright youth who, in order to secure the use of the largest spoon, was in the habit of carrying it all the day stuck in one of the button holes of his jacket.[437]

Notice that Wood uses the word "ludicrous" to describe his childhood mealtime rituals, indicating that major changes to dining and serving traditions had already taken place by the time he wrote this in 1877. Wood describes the "best share" going to the "most active," indicating that restraint was not encouraged as a way of allowing certain family members (i.e. fathers or wage-earners) a privileged share, and that gender and economic contribution were not the determinants of portion size. It is unlikely that possession of the largest spoon suggested informal "rules" regarding entitlement, otherwise why the need for carrying it to "secure" its use. If the youth in question had been 'entitled' to a larger share, due to gender or economic contribution,

[436] MWL manuscript Ll015.
[437] John Wood, *Autobiography of John Wood*, 6.

the spoon would have automatically been his, without the need to secure it. My interpretation of this passage concerning the carrying of the largest spoon in order to get the largest portion is that it was included as merely a charming anecdote about the logic of youth.

None of these descriptions mention the mistress of the house eating less, holding back, or giving larger portions of food to certain members of the family. While there is a danger in arguing that this omission means such behaviour did not occur, it is worth mentioning this fact as the lack of descriptions of unequal consumption or women's self denial is striking. None of the autobiographies or primary sources researched for this thesis from the earlier part of the nineteenth century describing communal dining included evidence of the systematic distribution of unequal shares, but it was mentioned innumerable times in autobiographies and oral histories from later in the century, especially by city-dwellers. It proves nothing, but it is notable.

In these descriptions of "communal bowl" dining, serving a meal appears to have been a duty completed with swiftness and without ceremony, not an activity performed as part of a *role*. To walk around a table serving food, one requires the proper equipment. This includes a table, a sufficient amount of space or chairs for the diners to be positioned around the table, individual plates, a pot or platter which could be carried and from which food can be meted out with ease. Based on these descriptions, it seems that the mother serving the meals was not expected to wait until everyone else had been served before she sat down to eat. It was not her responsibility to ensure that each family member, apprentice, or hired hand had a share of food appropriate to his or her station. According to these passages, the work required of her

for these meals consisted of boiling a pot of potatoes, porridge or *sycan* and placing it, with buttermilk, on a table.

Other recorded memories indicate the scarcity of cutlery and plates in working-class homes, and illustrate that often bowls, spoons etc., were often personal possessions, not elements of a kitchen arsenal that a woman was responsible for arranging on a table, filling, washing, drying and stowing away in their proper place.

Samuel Bamford, born in Middleton near Manchester in 1788, recorded in his memoirs:

> I was probably about three years of age when someone made me a present of a little tin can, as a plaything, and to sup my porridge and milk from…well, this little tin can, nothing could prevail on me to part from, and I was allowed to take it with me to bed.[438]

Like the boy recalled by John Wood who kept his spoon with him, Bamford's behaviour indicates he took some responsibility for his tableware. It is possible that, as in previous centuries, elements of the burden of clearing and washing up may not have fallen entirely to the mother (until the seventeenth century, it was common practice for guests, workers and family members in England to bring their own spoon and knife with them to a meal, wash it themselves at the table, and to carry it away with them.) Judith Flanders writes about the growing accumulation of utensils and other household goods in her work, *Consuming Passions: Leisure and Pleasure in Victorian Britain*:

> It is hard, in our age of material possessions, and given the stereotypical 'overstuffed' image of the late Victorian period, to appreciate from what a bare minimum the acquisition of possessions began. As late as the 1690s, something as basic as a utensil to hold a hot drink – that is, a cup – was 'extremely rare' even in prosperous households. A mere thirty years later, by 1725, 'virtually all' of these households had some.[439]

[438] Samuel Bamford, *Early Days* (London: Simpkin, Marshall, 1849) 42.

Interestingly, John Carey opened his *Times* review of Flanders's work with the remark, "It's easy to condemn consumerism, until you consider what life was like before consumerism happened. At the start of the 18th century, only one in 10 people in Britain possessed a knife and fork; five out of six did not own a cup. Judith Flanders's bulging bran-tub of a book is packed with statistics of this attention-grabbing calibre."[440] Carey's astonishment at this fact and his consideration that information about the historical changes in eating utensils is of "attention-grabbing calibre" illustrates clearly just how different this historical reality is from later descriptions and current practice, in which every member of the family dirties a plate, a knife, a spoon, a glass (at the very least) and the responsibility of clearing the table and washing, at least traditionally and still not uncommonly, falls to one person. The difference these changes made to serving practices and individual labour should be just as attention-grabbing. In return for helping a neighbouring farmer, Ben Brierley recalls: "'Owd Betty' would not forget to give me a bunch [of cherries]; and if she knew I was hungry, she would accompany the gift with a delicious oatcake, a 'thumb-butter cake', with such heaps of butter spread over it as to show the marks of my teeth."[441] It seems that this particular delicacy owed its nomenclature to actual practice. Janet Bathgate records what occurred in 1812 when, aged eight, she arrives at her first service position and meets her employer:

> Katie cuts a slice of pease-bannock, and spreads some butter on it with her thumb, and says — "Here, lassie, if ye never get anything waur than that ye'll have nae cause to compleen." Poor little Jenny!...though she was not accustomed to get butter on her bread, she thought Katie's thumb did not look too clean when she spread it, so it was

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[439] Judith Flanders, *Consuming Passions: leisure and pleasure in Victorian Britain* (London: Harper Press, 2006), 25.
[440] John Carey, review of Judith Flanders, *Consuming Passions*: *leisure and pleasure in Victorian Britain* (London: Harper Press, 2006), in *The Sunday Times Culture Magazine* (20 August 2006), 42.
[441] Benjamin Brierley, *Home Memories, and Recollections of a Life* (Manchester: Abel Heywood and Son; London: Simpkin, Marshall, 1887), 8-9.

"rather ill to gang doon."[442]

Ben Brierley's memories of the birth of his sibling in 1829 also highlight the preciousness of eating utensils: "Before I was of sufficient age to be sent to school I had a brother born. I did not give him the heartiest welcome, as I had fears that he might claim a joint possession of my spoon." Brierley was so anxious about this that, he writes, he considered sneaking cats in to destroy the midwife's parsley bed as a means of revenge "for her bringing him into the world." [443]

Earlier in the century, this absence of place settings meant that there were no individual servings, and therefore a larger serving could not be allocated to particular family members (although they may have taken it themselves). Regardless of whether or not there was self-regulation of consumption, or intimidation – either on the part of one family member trying to secure more food for him/herself or on another member's behalf – the simple fact that there was no overt allocation – no serving – implies that a larger portion of food was not distributed to confer status. A man taking the largest portion of food meant a the woman was not complicit in her deprivation nor contributing to her own unequal consumption. With everyone eating the same food from the same vessel, a more desirable item of food than what was consumed by the rest of the family was neither expected nor presented to the rest of the family as a symbol or privilege of male or breadwinner authority. In first-hand accounts of meals where everyone was served the same foodstuff – usually porridge or boiled potatoes – no special foods are recorded as being served to the head of the household. It appears that where this was the case, male authority and privilege was denoted in other ways, for example, perhaps by possessing the biggest spoon, like the youth in John Wood's autobiography. When describing an evening in her childhood home, Janet Bathgate

[442] Janet Bathgate, *Aunt Janet's Legacy*, 60-61.
[443] Benjamin Brierley, *Home Memories*, 3.

recalls the special treatment that her father received from his children, but says nothing of her father receiving special food or a larger portion:

> In the evening John finds one or two of the children waiting his arrival at the burn, bringing a towel with them that he may use it as he washes his face; and coming home, he finds everything neat and clean. Supper is on the table and the bairns vie with each other in attending to their father's wants. As he is seated in the big chair in the corner, one climbs up on its back and combs his hair, another unbuttons his "cuitikens" or spats, and relieves the wearied feet of the clay covered shoes. Then all are arranged round the supper table. "Now bairns," he says, "close your eyes and lift up your hands, and let us ask God's blessing on the food his own hands have spread on the table." It is not easy for hungry boys to keep soldier-like position during the long grace, but they succeed wonderfully well. Then no one leaves the table till thanks is returned. Afterwards John lies back in his chair, and takes a nap, while Tibbie and the girls clear away the dishes; after which, if it is summer, the bairns may all run out for play; if winter, they are employed in some useful way — the elder girls learn to spin, the boys to knit mittens.[444]

This quotation is revealing for several reasons. Bathgate was a keen observer of gender roles and was eager to exploit examples of the characters fulfilling gender stereotypes as a narrative device in her autobiography. Notice how she describes the division of labour between the male and female children. Also consider her description of the trials of adolescent male hunger, implying that restraint was not as difficult for the girls or that they were not experiencing the same level of hunger. However, no mention is made of Tibbie actively serving, or of John receiving more than anyone else or different meal elements. Admittedly, there is no description of any eating; what goes on between the prayers is not recounted. However, elsewhere in her biography descriptions of family meals show that everyone eats the same bread and butter, or oatcakes, or porridge. When the family eats porridge for lunch, Tibbie or one of the children brings a bowl to John in the field. It is unclear whether this was

[444] Bathgate, *Aunt Janet's Legacy*, 47-48.

the convention among the labouring families as a special privilege, or if it was necessary (i.e. if they were not permitted by their employer to leave the farm for meals). What is interesting about these descriptions is that all of the special treatment John experiences does nothing to lower his family's standard of living. While it might detract from his wife's quality of life (she continues working into the evening, clearing dishes while he naps), his "treats" – the children attending to his needs, a designated chair – cost nothing to the family in terms of money or sacrificed nutrition.

It is very possible that some form of nutritional inequality was occurring, but that no one felt the need to comment on it. Perhaps an increased feeling of exploitation and impotence caused by industrialisation made men feel insecure enough to the point of calling attention to it. Regardless, once dishes, forks, tablecloths, platters, and other accoutrements of dining entered working-class households, a ritual of serving followed, and these implements and this ritual are what permitted consistent nutritional inequality to occur through differential serving.

As discussed in the previous chapter, the working-class was under continuous pressure to ritualize eating, which included establishing serving as a female responsibility, adding to the work of women and putting them into the role of one who feeds others rather than one who consumes. Commenting on one middle-class woman's report to the Committee on Physical Deterioration in 1904, Elizabeth Petty writes in "The Newer Knowledge of Nutrition": "Mrs. Deverell deplored the fact that 'anything like a sit down meal' was unknown in many districts. According to this view there was a need to teach the working classes not only what to eat and how to cook it, but how to organize the ritual of eating as well."[445]

[445] Petty, "The Newer Knowledge of Nutrition," 39.

While the ritualisation of meals resulted from both the increased tableware and, most likely, from growing exposure to how the middle-classes dined (both the result of industrialisation and urbanisation), the result was the same. It provided an additional opportunity to exert male privilege (I specifically refer to recorded instances of men demanding special or more food rather than its being offered), as well as casting women in a role where they were expected to provide, not to consume. The dictates of politeness and manners, instilled during the upbringing of both boys and girls, insist that when one shares something of unequal value, one gives the portion of greater value away. It is a gross violation of comportment to withhold the larger portion for oneself. Mr. Bowker, interviewed by Elizabeth Roberts had this to say about notions of sharing among the working-class: "Although [a man] may only have a shilling in his pocket he would buy some fruit or something and share it. People were always brought up to share, and I think that was half of life. Where there was family life you were taught to share with your family and in the end you shared with your friends. Even if you had a sweetie and you were a kiddy and you got a lollipop you'd give them a suck of your own sweet. It is considered very unhygienic today, but we never bothered about that yesterday."[446] Once a woman is actually cast in the role of *always* being the distributor food, not merely cooking it, but serving out portions, this code of behaviour ensures that she is always at a loss.

The autobiography of J. Barlow Brooks, born in 1874, illustrates how a woman could be coerced by the social mores of serving, and a guest's masculine sense of entitlement, into sacrificing her entire meal:

> It was one of those ministers, an older one, who came in one night to rest and have a bite before catching his train home, who found my mother there stirring the porridge over the fire. He sniffed with delight and exclaimed, 'Oh, porridge! I haven't tasted

[446] Elizabeth Roberts, 83.

> porridge for years. I hope there's some for me!' My mother replied, with a smile, "Well, as a matter of fact the porridge was for my two boys and myself, but yo' can 'ave my share if yo'd rather 'ave it than th' toasted muffins and coffee I was goin' to give yo'.' He preferred the porridge and smacked his lips over it mightily. When he had finished my mother said, 'Perhaps yo'd like a cup o'coffee, too?' He replied that he wouldn't mind, and ended in consuming the buttered muffins as well.[447]

The above passage makes apparent the pressures on a woman to sacrifice food once she takes on the role of a servant. In middle-class households, servants made elaborate, ritualized meals possible. By forcing working-class women, who obviously had no servants, to emulate this ritual, they themselves had to take on the role of a servant, whose needs were implicitly of less concern than those being served. At first, Brooks's mother cheerfully accepted the role of hostess and server, by offering her porridge in exchange for his intended meal, then by providing coffee. However, while Brooks quotes his mother offering the porridge and the coffee, he does not mention her suggesting to the minister that he eat her muffins as well. While this may just be a case of literary aesthetic, I believe its absence suggests the rest of the meal was not offered but requested. Regardless, this man was aware he had eaten what a woman had intended for her supper, and still gobbled down the rest of the available food. Apparently, some sense of justified entitlement granted him the ability to consider his own hunger more important, or prevented him from truly grasping that he was leaving this woman to go hungry for the rest of the evening.

As women became more entrenched in the role of server, due to increased dining implements and social pressure, they became perpetual hostesses. All members of the family were elevated to the status of guests, or masters and mistresses, while she remained the one who, due to the codes of politeness and sharing, was required to dole out better and more food to others, taking what was of least value for herself. Her

[447] J. Barlow Brooks, *Lancashire Bred: an autobiography* (Oxford: Church Army Press, 1950), 173.

status as manager, earner, parent and spouse, while remaining intact, grew secondary to the proper performance of this role. By the turn of the twentieth century, this role was entrenched, adding to women's labour and ensuring non-consumption. One respondent in *Maternity* wrote of performing her mealtime duties while pregnant:

> I know I used to get the dinner cooked and struggle through the serving, then I was done, and was obliged to lie down a bit, often without my dinner, as I was too exhausted to eat, and the pleasure of the rest was partly spoiled by the thought of the dinner table still laid.[448]

Describing the dinnertime responsibilities of Edwardian Lambeth mothers, Maud Pember Reeves wrote:

> When she has got them arranged sitting or standing round the table she helps each one as quickly and fairly as she can. If her husband is not there, she may put aside his portion to be warmed up and eaten later. She does not attempt to eat with the family. She is server and provider, and her work is to see that everyone gets a fair share, according to his or her deserts and the merits of the case. She may or may not sit down, but perhaps with the baby in her arms she feeds the youngest but one with potato and gravy or suet pudding.[449]

None of this would have been possible if material wealth had not increased and the accoutrements of serving had not been available. The resulting phenomenon was, in essence, an inverse relationship between material wealth and women's physical well-being: as the material standard of living increased, the nutritional standard of living decreased. As discussed in chapter two, economic historians are still grappling with the idea that resources are not necessarily distributed equally within families: "Why do households appear to have unequal sharing rules in many cases, when we have predicted that the living arrangement market should lead to equal sharing?" asks Joyce P. Jacobsen in 1998.[450] Most economic historians agree

[448] "Too exhausted to eat," *Maternity*, 144.
[449] Reeves, 112.
[450] Joyce P. Jacobsen, *The Economics of Gender* (2nd edn, Oxford: Blackwell, 1998), 83.

that resources are not shared equally and some are beginning to acknowledge that a rise in standard of living (because of a stronger economy, a rise in purchasing power, etc.) may only be to the benefit of one member of the family, while other family members experience no increase. In *Leisure, Citizenship and Working-Class Men in Britain, 1850-1945*, Brad Beaven writes:

> Between 1850 and 1900, real wages rose by 80 per cent, a phenomenon which ensured that some workers had become the first proletarian consumers of a mass commercial leisure industry…However, it has been estimated that, after spending three-quarters of their income on food and rent, workers who benefited from real wage rises during this period devoted the surplus to commercial entertainment. It was working class males, free from the difficulties of balancing the family budget, who were the true beneficiaries of the economic circumstances of the late nineteenth century.[451]

However, as eating grew more ritualized, a completely different model of distribution emerges, one in which an increase in standard of living for one family member precipitates a decrease in the rest of the family's standard of living. As material wealth increased in the form of additional possessions (either due to growing wages or decreasing prices) for the family as a whole, the standard of living decreased for certain family members because it allowed for the reallocation of nutritional resources.

In *Luxury and Pleasure in Eighteenth-Century Britain,* Maxine Berg discusses the concept of luxury demand and writes:

> Elizabeth Gilboy in 1932 extended this analysis of luxury demand from the elites to the middling classes. She argued that the new wants provided "one of the most active forces leading to changes in standards of consumption." The new commodities led those with a surplus "to try this and that, and finally to include many new articles in their customary standard of life." They also attracted those without the requisite surplus who worked harder to get this surplus, or skimped on necessities.[452]

[451] Brad Beaven, *Leisure, Citizenship and Working-Class Men in Britain, 1850-1945* (Manchester: MUP, 2005), 48.

Thus, the changes created by the affordability of household goods and utensils show that the analysis of luxury demand should be extended beyond the middling classes to the labouring classes, albeit in an altered form in which the articles which made up the customary standard of working-class life were predetermined by their middle-class usage and subsequent mass production. This model also needs to be extended to illustrate the extremely important point that within a working-class household, which may not possess the requisite surplus for commodities, the "skimping" required will not necessarily be evenly distributed among the members of the household, just as the resources are not. Women may have suffered an economic disadvantage in many different ways as a result of growing consumerism and affordable goods. The first way, discussed at the beginning of this section, was in the form of labour costs due to the additional effort required to clean and maintain additional household items. Another factor to consider is the additional financial burden placed on the woman of the house to purchase the newly affordable items of respectable living. Once material goods were manufactured and sold at a price conceivably affordable by the majority of the working-class, a new standard was set for respectability and wives were then required to manage their household to acquire these accoutrements of respectability. The pressure to purchase household goods which had evolved from luxuries to necessities experienced by working-class women as the nineteenth century progressed had plagued the middle classes at the very end of the previous century: "From 1785-1800 – a mere fifteen years – the rate of consumption of what had previously been considered luxuries and were now regarded as part of the ordinary necessities of life increased at more than twice the rate of population growth."[453] Mere growth of population, along with an increased availability of commodities, cannot account for

[452] Maxine Berg, *Luxury and Pleasure in Eighteenth-Century Britain* (Oxford: OUP, 2005), 26-27.
[453] Judith Flanders, 26.

an explosion of consumption. As Elizabeth Gilboy writes, "An expansion of the standard of living of the population, as well as the growth of new wants, is necessary."[454] How were these new wants created? What made luxuries become desired as necessities? Judith Flanders lists among these new necessities candles, tea and printed fabric, and she describes why the pressure to consume material goods was so great:

> From the time of the Great Exhibition, it was expected that one's quality of life – one's standard of living – could be judged by the number of possessions one owned, the number of things one consumed. This was an entirely new way of looking at things…Buying goods, owning goods – even living up to goods – were now virtues. Comfort was a moral good.[455]

To increase a family's moral standard of living through consuming products, a woman was prepared to sacrifice her personal quality of life by denying herself food. A similar argument regarding an increase in material wealth which actually increases an individual's labour investment or economic loss can be found in *More Work for Mother*, in which Ruth Schwartz Cowan suggests that the labour-saving devices of the twentieth century actually increased the amount of hours women spent cleaning their homes. Like the situation described by Cowan, the work of women is not necessarily increased by the items themselves, but the *standards* and *expectations* they create which alter and expand the job description of wife and mother. Cowan describes how the invention of labour-saving devices allowed one woman to maintain a household to a standard that had previously required wealth and servants. Once the devices allowed the standard to be achieved by poorer women, they were required to meet those standards. Also, many "advances" in household goods or "labour-saving" devices often led to an increase in necessary work, and Cowan offers the examples of stoves

[454] Elizabeth W. Gilboy, "Demand as a Factor in the Industrial Revolution," in R. M. Hartwell (ed.), *The Causes of the Industrial Revolution in England* (London: Methuen, 1967), 123.
[455] Flanders, 26.

that made cooking easier, but needed to be cleaned and blackleaded on a daily basis to prevent rusting; cotton cloth replacing wool, which almost eliminated the need for spinning and weaving, but increased the amount of sewing and laundry women were expected to do; and oil lamps which replaced candles, but required regular cleaning, filling and polishing. Cowan also claims that labour saving devices and innovations altered tasks so they were less physically-demanding or repetitious. However, she argues that the more physically-demanding elements of traditional tasks were the ones men performed, and the more repetitious tasks were the ones routinely performed by children. With housekeeping tasks just as time consuming, but less physically-demanding, men pitched in less, and many tasks were made too complicated for children to help. Therefore, women's labour actually increased while the rest of their families' lives became easier. Writing about the experiences of middle-class American women, Cowan writes:

> Small wonder, then, that so many people commented on the exhaustion and ill health of American women during the nineteenth century. Industrialisation had introduced many novelties to their homes and probably had, overall, improved their standard of living – but they still had a great deal of hard work to do. With the exception of the very poorest women, or those who were dwelling on the most primitive frontiers, American women living toward the end of the century probably ate a more varied diet, suffered less from the cold, enjoyed more space and more luxuries in their homes, and kept their bodies and their clothes cleaner than their mothers and grandmothers who had lived earlier. These improvements had not, however, lifted the burden of women's domestic cares, in spite of radical changes in the patterns of daily work at home.[456]

Like American women, the capital required by nineteenth-century working-class British women to achieve this new standard of dining and serving was the money spent on the necessary devices/items and an investment of time and labour in the cleaning itself. I wish to extend Cowan's argument: not only did an increased

[456] Ruth Schwartz Cowan, *More Work for Mother*, 63-66.

standard of living for a family involve the wife and mother's sacrifice of her time and labour, but it involved a nutritional sacrifice as well. In working-class homes, this skimping within households in order to afford goods described by Elizabeth Gilboy was largely performed by women because, just as resources were not distributed equally within families, sacrifice for those resources was not equally distributed. As with Cowan's example of the standard of living of a middle-class household being raised by an increase in labour of the woman alone (while that of her husband and children decreased), many women secured a better standard of living for their husbands and children by skimping on food while their families' nutrition and household comforts improved.

In his book, *The Industrious Revolution: Consumer Behaviour and the Household Economy, 1650 to the Present*, economic historian Jan De Vries elaborates on a theory he attributes to Gary Becker called "new household economics" in which members of a household allocate their resource of time into one of three ways to maximize their consumption of goods: by investing time into market labour in order to purchase goods, into domestic labour to convert goods into consumable commodities, or into leisure to consume these commodities. De Vries furthers this theory by arguing that the elasticity of the resource of time and its redistribution among these areas and among family members was a consumption strategy that permitted the purchase of new goods, or the creation of consumables, when consumers were restricted by the traditional spending framework of prices and wages. He argues that women entered the workforce, sacrificing leisure time and domestic time (traditionally used for creating consumables) into monetary resources to

purchase manufactured goods, thus propelling the consumer revolution.[457] I wish to argue that the self-denial of food was yet another non-traditional consumption strategy to purchase desired goods when the restrictions of prices and wages discouraged such consumption. Women reduced their consumption of traditional goods, e.g. food, in order to purchase manufactured commodities. Many women describe stinting themselves to save for the purchase of goods considered necessary for respectable living, as mentioned in the previous chapter. Therefore, their disadvantage was also nutritional as well as economic. A woman in Maternity wrote of consuming insufficient food while breastfeeding – "the income too limited to furnish me with a rich nourishing milk" – while attempting to manage resources to procure a respectable standard of living for her family which she both desired and felt burdened and powerless to attain:

> Working-class women have grown more refined; they desire better homes, better clothes, for themselves and their children, and are far more self-respecting and less humble than their predecessors. But the strain to keep up anything like a decent standard of housing, clothing, diet, and general appearance, is enough to upset the mental balance of a Chancellor of the Exchequer. How much more so a struggling pregnant mother![458]

This phenomenon, which I will describe as the "inverse standard of living" model, requires one member of a household to lower his or (more likely) her standard of living, by not consuming basic necessities, in order to raise the standard of living of the household through the acquisition of commodities. Anthropometric historians John Komlos and Timothy Cuff highlight a similar phenomenon in their work on antebellum America. By studying the heights of West Point cadets and U. S. Civil War enlistees respectively, Komlos and Cuff reveal that there was a decline in stature

[457] Jan De Vries, *The Industrious Revolution: consumer behavior and the household economy, 1650 to present* (Cambridge: CUP, 2008), 26-31. Also see De Vries, "The Industrial Revolution and the Industrious Revolution," *The Journal of Economic History*, 54/2 (June 1994), 260.
[458] "Stead's Penny Poets," *Maternity*, 46.

among young men between the 1830s and 1860s just as America was experiencing unprecedented population growth, urbanisation and market integration. In trying to solve what Cuff refers to as the "antebellum puzzle" or the "early-industrial-growth puzzle" – to explain why there was "a decline in biological well-being at a time of general economic prosperity" – both historians suggest that urban growth placed such demands on agriculture that certain social groups (especially farmers who had been the tallest group previously) consumed less calories and protein.[459] Cuff writes that in this period, a major contributing factor to the height disparity between agricultural labourers who lived near urban areas or transportation links and those self-sufficient farming families who were geographically isolated may have been the proximity to markets. According to Cuff, the availability of market goods and the high prices for items like milk and eggs encouraged farmers to sell the protein foods that their families would have normally consumed in order to generate income to purchase goods. He writes:

> …the increasing availability of manufactured goods in the nineteenth century may have induced some families to reduce their food consumption in order to market their crops more aggressively, especially high protein meat and dairy products. While this might be a utility increasing behaviour, it would have a negative impact on the health of children of the household. Such a change in distribution of calories and high protein foods from rural to urban consumption is also consistent with rural height declines.[460]

This economic strategy described by Cuff varies only slightly from the "inverse standard of living" model that seems to have been practiced by nineteenth-century working-class women in Britain. Like antebellum farmers, British working-class

[459] Timothy Cuff, *The Hidden Cost of Economic Development: the biological standard of living in antebellum Pennsylvania* (Aldershot, Hampshire: Ashgate, 2005), 433 and xiv-xv; John Komlos, "The Height and Weight of West Point Cadets: dietary change in antebellum America," *The Journal of Economic History*, 47/4 (Dec. 1987), 898, for information on height differences between social groups see page 903, for decrease in meat consumption see pages 908-912.
[460] Cuff, *The Hidden Cost of Economic Development*, 4.

women were exposed to newly-available consumer goods which they attempted to procure, not only through the sale of protein goods that they would have normally consumed (as was the case in some farming families) but through reducing their consumption to limit food expenditure and spend a higher proportion of income on goods.[461] The novel availability of goods was not just due to proximity to markets, but also due to the lower cost of factory-produced products. Whereas children in antebellum families fared worse because of these economic decisions, British women seem to have borne the brunt of this nutritional economic strategy. And unlike Cuff's agricultural families, nineteenth-century British women appear to have reduced their consumption, not only for manufactured goods, but to provide protein products for one member of the family. Women denied themselves in order to raise the nutritional standard of the father and possibly the rest of the household once protein food, like consumer commodities, became attainable through a degree of "skimping," hence the introduction of "special" foods into the diet of the patriarch of working-class families. In rural areas of the UK at the start of the nineteenth century, it would appear that certain members of the family could not eat 'special foods' because the meat or fish that usually constituted this "treat" was either unavailable or unaffordable. As the prices of food decreased, or as wages rose, or as transport improvements made the purchase of a wider range of goods possible as the nineteenth century progressed, certain foods entered the realm of affordability for working-class families, but only if funds were diverted from where they had been allocated previously.[462] In other words, if no one gets meat, everyone gets more potatoes. But once meat is a possibility, it is only a possibility in limited amounts and at the expense of the collective diet.

[461] For examples of farming families selling protein foods instead of consuming them, see 281 below.
[462] For a study of trends in real wages and food prices between 1780 and 1850, see Charles H. Feinstein, "Pessimism Perpetuated: real wages and the standard of living in Britain during and after the industrial revolution," *The Journal of Economic History*, 58/ 3 (Sep. 1998), 625-658.

With cheaper meat and sources of protein available and within the reach of working-class budgets, if a family received only a small increase in wages, it appears that wives were compelled to spend on treats what would have otherwise been spent on more equally-distributed carbohydrates. Does a rise in "the standard of living" mean a woman received fewer calories than she would have had the market not placed delicacies within her reach? It may be that men were not only the true beneficiaries of the economic circumstances of the late nineteenth century, but that these benefits undermined a level of nutritional equality that women had previously possessed.

In "Demand as a Factor in the Industrial Revolution," Elizabeth Gilboy writes, "Demand increases, not only because of population growth, or the expansion of markets, but because of internal demands, changes in desires."[463] Not only had the market expanded, making household goods affordable, which allowed for differential serving and diverted funds from food, and making special "treats" of increased nutritional value available, allowing for some to be purchased at the expense of the collective diet, but the demand, the internal desires, for these special treats was present also. Men were prepared to demand or expect special food, a topic which will be discussed at length in the upcoming chapter. Gilboy refers to these internal desires propelling demand as the "demand schedule" and I argue that this shift in demand schedule, along with market expansion, created tensions and conflicting economic goals which promoted a drop in women's nutritional standard of living as the standard of living of their husbands increased. It is easy to see how such conflicting desires and goals, and the resulting nutritional sacrifice on the part of women, could turn the home from a place of refuge, as David Vincent writes, into a "cockpit."

[463] Elizabeth W. Gilboy, "Demand as a Factor in the Industrial Revolution," 121-122.

Chapter 10

"Male Selfishness": How Gender and Family Power Struggles Sustained Unequal Consumption

"*Even where – by modern standards – male selfishness did exist, there were good reasons for it.*"

-Brian Harrison, *Drink and the Victorians*[464]

"A widow will bring up two or three children on ten or twelve shillings a week and be considered by herself and others as fairly well-off; a man in the same position will require at least double that amount, and then be accounted very poor. The children will probably be no better off in the latter case, but the man's fortunate selfishness will have kept him an efficient worker, while the woman will be a human wreck."

-Helen Bosanquet*, The Standard of Life*

"Man's fortunate selfishness": a result of biology?

In 1898, Helen Bosanquet partially attributes women's low standard of living to "man's fortunate selfishness" in her essay "The Standard of Life."[465] In "Physical Degeneration and the Poverty Line," Bosanquet elaborates on the nature of this selfishness, declaring, "There is much to be done indeed in making the men take home their wages, if you can, instead of spending them in the public-house…" She proceeds to develop a strategy of middle-class intervention, involving motherhood education and cooking classes, to "awaken an intelligent pride in the rearing of children." Bosanquet claims that a wife's newly-inspired "interest like this in the

[464] Brian Harrison, *Drink and the Victorians: the temperance question in England 1815*-1872 (Pittsburgh: PUP, 1971), 47.
[465] Helen Bosanquet, "The Standard of Life," *The Standard of Life and Other Studies* (London: Macmillan, 1898), 20. Also quoted on page 86 above.

development in his children is the surest protection for the father against the beguilements of the public-house."[466]

Bosanquet never cared to illuminate her readership as to why she thought that the government caring for working-class children would encourage parents to neglect their duties, but felt that a mother taking full responsibility for her children would have the opposite effect on her husband. However, Bosanquet's perception of a working-class husband's contribution to the poverty of his family is telling. Whether it inspired compassion or blame, middle-class social reformers were familiar with this picture of working-class domestic strife. The interplay between husband and wife over possession of wages is described ad infinitum in contemporary political campaigns,[467] secondary historic literature, novels, personal letters and autobiographies. The tactics used by women to secure the weekly wage are well documented in all of their emasculating glory – women marching to their husbands' places of employment on a Friday, children in tow, to embarrass them into placing the money into their hands, making use of the tradition of receiving maintenance money outside the home for the neighbours to witness a fair transaction,[468] or as a last resort, advancing on the local pub late on Friday evening before an alcoholic husband could drink the last of his earnings and demanding the remaining shillings. This weekly battle between husband and wife over "'round about a pound" and who had a right to how much was debated at the end of the nineteenth century and retrospectively by Harris and Oren. The question was always the same: was personal expenditure by men justified when women had to sustain the family?

[466] Helen Bosanquet, "Physical Degeneration and the Poverty Line," *Contemporary Review*, 85 (January 1904), 73.
[467] Women's Co-operative Guild, *Twenty-ninth Annual Report 1911-1912*, LSE, Coll. Misc. 657 vol. 3 archives MF 67, p. 11.
[468] Interview with Mr. E.W. Wiffen, ERO, SA12/508/1and SA 12/508/2; Laura Oren, 231.

We have established that, in the nineteenth-century working-class family, women ate the least to give their husbands and children the most. But clearly, not every working-class husband was a drunk who cared little about the survival of his family. How did the responsibility of maintaining a house fall so solely on the shoulders of those who were not earning? Besides decreasing already insufficient earnings on drink, how did working-class husbands contribute to making the self-deprivation of wives a nearly universal experience? And, ultimately, why were men largely comfortable with diverting resources from their children by consuming unequal shares of food, and even willing to decrease these resources for leisure and luxury items, while women seem to have universally put their children before themselves? Investigating modern cases of "male selfishness," economist Gary Becker suggests that men are less willing than women to sacrifice for their children's survival because they have a lower biological investment in children than women.[469] According to Becker, conception takes mere seconds while carrying and nursing a child can take up to two years, therefore men are less willing to protect their investment (their living children), and less concerned about their survival due to the comparatively small amount of effort it would take them to create more children. While this argument is interesting and gives one much to contemplate, it does not offer such a satisfactory explanation when considering the way "male selfishness" and sacrifice, and also female selfishness and sacrifice, have altered in the United Kingdom over the last century.

In a study done in 1988, researchers found that "in families where men were unemployed, both adults reduced their food intake while maintaining that of their

[469] Gary S. Becker, *A Treatise on the Family* (Cambridge, MA: Harvard Univ. Press, 1981), 21-22.

children."[470] This behaviour is utterly different from the conduct of unemployed fathers described in Noel Paton's poverty study published in 1926, the Liverpool Economic and Statistical Society's survey from 1909, and the letters sent to and reports delivered by the Women's Co-operative Guild between 1870 and 1914. The unemployed men in these sources would demand the same amount of food they were accustomed to eating, expect special treats even if the quality of family food had diminished as a whole, or continue to buy cigarettes and alcohol with their club money. Out of the hundreds of accounts of working-class meals examined for this work, I have found only one example of a father refusing food and giving it to his children and only one involving a mother eating her children's meal. Both were from twentieth-century memoirs: well past the period covered by this thesis, yet indicating that parental behaviour regarding food was beginning to change. The first account is found in Frank McCourt's *Angela's Ashes*, in which the author's father regularly gives all or most of his food to his children. While Mr. McCourt persistently spent entire wage packets and dole payments on drink, and considering that he likely owed his suppressed appetite to alcoholism and the calories in beer, he seemed to feel it was his duty to control his appetite and sacrifice food for his children even if he could not control his drinking.[471] In William Woodruff's autobiography, *The Road to Nab End*, the author introduces the reader to his grandmother, Selma, a mother of eleven children, by retelling a story about his father's adolescence. One day his teen-aged father returned to his house in Blackburn to find his younger brothers and sisters locked out of the family home, watching their mother through a window as she consumed a whole plate of chops. "Mam's eatin' our dinner," one tells Woodruff's

[470] Nickie Charles and Marian Kerr, *Women, Food and Families* (Manchester: Manchester Univ. Press, 1988), 180.
[471] Frank McCourt, *Angela's Ashes: a memoir of a childhood* (London: Flamingo, 1997); for examples of Malachy McCourt's food refusal, see pages 249 and 313.

father. "'There just wasn't enough to go around,' she explained later to her son, 'Better a few chops for me than too little for everybody else.'"[472] Grandma Selma's behaviour forms a stark contrast to that of nineteenth-century female food forgoers: at the time of this incident, both her husband and teenage son were breadwinners. Not only was she eating *the entirety* of her children's meal, but she was neither earning, nor was she leaving any food for her son who was earning. Grandma Woodruff would have been eating chops before 1903 and Mr. McCourt was giving away his dinner towards the end of World War II; illustrating that by the middle of the twentieth century, the way parents viewed their roles and obligations had started to change. Although the traditional roles of the consuming man and the sacrificing woman were what allowed these autobiographical descriptions to be notably powerful (Mr. McCourt's tendency to give food away was, because he was a man, especially redeeming, while Grandma Woodruff's eating signifies that she is an exceptionally domineering and insensitive mother), their behaviour shows that selfishness and sacrifice are not fixed according to gender, and that expectations of fatherhood and motherhood were shifting, eventually progressing towards both parents sacrificing ever more equally on behalf of their children.[473] Thus, by the time Charles and Kerr surveyed English food habits in the 1980s, when families were faced with unemployment, fathers willingly reduced their food intake along with their wives. Children have become an increasingly collective family priority, suggesting that behaviour considered acceptable and appropriate for fatherhood has altered, and that it did so over a very short span of time, evolutionarily speaking. Such factors indicate

[472] William Woodruff, *The Road to Nab End: an extraordinary northern childhood* (London: Abacus, 2002), 90.
[473] According to John Tosh in *A Man's Place: masculinity and the middle-class home in Victorian England* (New Haven: Yale Univ Press, 1999), due to changing notions of fatherhood, masculinity, and even femininity, the middle-class ideal of the nurturing, child-loving father had already fallen in and out of fashion several times before the end of the nineteenth century, further emphasizing that gendered parental behaviour is largely constructed through social influences, not biology, 80-81, 87.

that the responsibilities of fatherhood and motherhood are not biologically determined, by reproductive investment or otherwise, but constructs based on evolving social expectations.

Male Violence

In *Leisure, Citizenship and Working-Class Men in Britain, 1850-1945*, Brad Beaven writes: "Due to their meagre incomes, working-class women had no option but to rely on their husband's contribution to the household economy, an arrangement which reinforced male authority in the home. The male's position in the household was sometimes further strengthened by wife-beating, which was tolerated within both working-class communities and wider society in general."[474] Both economic dependence and domestic violence are issues of gender and power that I wish to explore in relation to food distribution and female food refusal.

While I would dispute the assumption that 'male authority' ruled most working-class homes, and will later question the definition of 'male authority' and how respected and/or recognized it was within families (certain sources have led me to believe that wife-beating often may have undermined male authority),[475] I have no doubt that wife-beating was used by a sizeable number of men, working-class and otherwise, during the long nineteenth century to dominate and control their wives and children. Also, the mere threat of violence in order to exert control could be very effective and even more widespread. Where an unequal distribution of food was regularly maintained through violence or threats of violence, all further arguments

[474] Brad Beaven, *Leisure, Citizenship and Working-Class Men in Britain, 1850-1945*, 48-49. To support this statement, Beaven references A. August's "A Culture of Consolation? Rethinking politics in working-class London 1870-1914," *Journal of the Institute of Historical Research*, 74 (2001), 199.
[475] See *Maternity*, "I think a lot," 73-74 and "Her 'Lot.'", 133-35, for examples of children having little respect, loyalty or fondness for fathers who had beaten their mothers.

about "the breadwinner effect," economic rationality, need-perception, inverse standard of living, etc. being among the causes essentially become null and void. While it is possible that a woman may have felt the need to serve her husband more food or to eat less for any of the above reasons, once she is threatened or victimized into feeding her husband at the expense of her own nutrition, her freedom of choice has been stripped from her, and she is no longer making her decision on economic, social or cultural grounds: her primary concern becomes peace within her household and her own personal safety. While my research has uncovered comparatively few cases of women feeding their husbands more or better food as a result of threats or violence, those cases illustrate that, at the very least, a small percentage of wives did continue the practice of distributing food unequally in their homes because they were concerned about retribution from their husbands if they did not.

Despite Beaven's assertion that wife-beating was tolerated by both society and working-class communities, and comments such as Ellen Ross's "There was nothing secret or shameful about a Saturday night fight,"[476] all but two of the sources I have read mentioning brutal husbands are second-hand accounts, usually described by friends, relatives, and more rarely, children. It appears a violent husband was still a source of shame: few of the women committed their complaints about their own husbands to paper, and more praised their husbands for being good on the grounds that they had never struck them. While Lucy Luck was considering a marriage proposal in 1867, the advice she received from her employer makes it clear that husbands who were not physically threatening to their wives were more the exception rather than the rule: "…when I was alone with Mr. H_ in the house, he put his hand

[476] Ross, 86.

on my shoulder and said to me, 'My girl, you have poor Will; he will make you a good husband, and he will never hit you'."[477]

Regarding meals and food distribution, men appear to have been accustomed to certain kinds of foods, amounts, or serving rituals and were often unsympathetic when such things were altered, even for very good reason. Some were willing to use force or intimidation to maintain the status quo, while others more commonly made demands, or, at the very least, revealed their sense of entitlement by making their displeasure known. While the latter could hardly be called domestic violence, such behaviour may have been abusive, and certainly pressured women into distributing food unequally to avoid their husbands' anger. An Essex woman born in 1882 told her interviewer about what her mother would feed her father for dinner and added in a low warning tone: "If his dinner wasn't on the table at one o'clock, he'd want to know the reason why."[478] Other men clearly were not on the habit of sharing and demanded special treatment. A Domestic Arts student who had interviewed a Ton Pentre woman born in 1866 wrote: "Mrs. Warren told me that her father always insisted on having his bacon for breakfast toasted in front of the fire, and the resulting juice was used to soak his bread."[479]

Intimidation kept women worrying over their husbands' dinner not only when they were short of funds, but when they were ill and incapable of cooking as well. One of the respondents in *Maternity* praised her husband for being supportive when she was bedridden from prolapse and haemorrhaging after her confinements: "…he was never impatient. I have seen women similarly placed, and their husbands throw

[477] Lucy Luck, "A Little of My Life," originally published in *The London Mercury* (February 1926) (ed.) J. Squire (Berkhamsted: Dacorum Museum Advisory Committee, 1992), 12.
[478] Interview with Mrs. Rose, ERO, SA/17/797/1.
[479] Mrs. Warren interviewed by Jean Bower, 1960, MWL, LL 1032.

their dinner in the fire."[480] It is unclear whether this woman is referring to husbands burning their own dinners in protest of their quality, or if they are burning their wives' dinners as punishment, but her statement conveys the lack of understanding and short temper on the part of husbands that certainly reinforced the "custom" of working-class wives feeding their husbands better foods in greater quantities than the rest of the family. In the very worst cases, men did beat their wives if they were not fed the kinds of foods or the amounts that they desired, and in such cases wives found depriving a husband on the grounds of insufficient funds or to feed themselves and their children to be unthinkable. The wife of a poor dock worker in Liverpool told an investigator of her violent husband: "He is a man who must always have his food whether he works or not, and when he doesn't work I have to borrow to get it." After the woman refused to fill in a budget book, the investigator recorded that she "dare not fill in the book, because if her husband saw how much money she was borrowing he'd 'hammer' her."[481]

While there is no evidence to suggest that violence and intimidation *created* the tradition of unequal consumption, descriptions of the use or threat of force to maintain special treatment reveal that men enjoying dietary privilege became a cultural expectation and that gender oppression at the family level contributed to the perpetuation of unequal distribution and female food refusal in some families.

"Male Selfishness" and unequal consumption

The contribution of "male selfishness" to female food refusal was significant, but not as part of a straightforward equation such as that suggested by Bosanquet: that men get more because they demand more, and that women therefore get less because they

[480] "Oh, the horrors we suffer!" *Maternity*, 38.
[481] Liverpool Economic and Statistical Society, *How the Casual Laborer Lives*, xxxiii.

will accept less. The way in which "male selfishness" contributed to the process of female non-consumption was much more complex, involving subtle pressures and the use of their gender prerogative to willingly or unconsciously exploit wives. Ultimately, women were able to use food refusal as an effective method to secure power within their families and as a valuable and successful coping strategy to reconcile their position of supreme responsibility with their lack of supreme authority.

Nancy Gutierrez, author of *'Shall She famish Then?' Female Food Refusal in Early Modern England*, writes, "The body of a starving woman, made so through deliberate food refusal, is a political paradigm of this age's crisis of authority, for it brings to light explicit and subliminal cultural pressures within family and marital structures."[482] Evidence suggests the same was true for women of the nineteenth-century, and that these pressures within family and marital structures, often created or exacerbated by "male selfishness", are what kept female food refusal and unequal consumption alive throughout the century.

"Male Selfishness," responsibility and worry:

A recurring theme in first-hand accounts of food refusal is worry. The non-consumption of meals seems intimately related to women's sense of being overwhelmed by the responsibility for the survival of their families and the ever-present feeling that they were without support from their husbands. The crushing weight of this responsibility and its relationship to feeding and food refusal is brilliantly illustrated in the autobiography of London priest Joe Williamson. He writes of mothers throwing themselves into the local canal when the pressures to provide nourishment without the agency to supply food became unbearable:

[482] Nancy A. Gutierrez, *'Shall She famish Then?' Female Food Refusal in Early Modern England* (Aldershot, England: Ashgate, 2003), 2.

> Two or three times a week there would be a cry and a rush – "Someone in the Cut." For the most part the people who managed to drown themselves were women. Usually it was at the week-ends. Week-ends! On Saturday at 1 o'clock the men were paid, if they were in work, but most men seemed to be out of work so there was nothing to eat for the family. Men, as well as the children, turned to Mother, as if she were a magician, for food. Most mothers got food, God knows how, but some of them could stand it no longer, so to the "Cut" they went and ended it all. It was a tragic occurrence.[483]

Here, Williamson's observation that it was not just the children, but the men themselves who had failed to provide, who looked to their wives to rescue them from defeat beautifully illustrates the contradiction in socially-prescribed marital roles that drove women to distraction: that of having ultimate accountability without supreme authority. About her father, Mrs. Layton, born in 1855 wrote, "A good father and husband up to a point, he left the responsibility of the whole family to my mother. She it was who had to start us all out in life. As our family increased and my father's wages remained stationary, it was necessary for my mother to earn money to help keep us in food and clothing."[484] When writing about the sufferings of her neighbour, a Welsh woman born in 1858 wrote, "Her husband was a steady man, but the same as other men – went out and left her to it to do as she liked."[485] Perhaps a more appropriate statement would have been "left her to do as she had to," for these women were rarely permitted to do as they liked, as further statements from this particular woman attest. She writes, "Sometimes she run into debt for groceries, and her husband got very cross with her. She told me herself that she had gone without many a meal for the children and her husband, still he worried her for going into debt."[486] The above quotation illustrates that while husbands held their wives up to an often

[483] Joseph Williamson, *Father Joe: The autobiography of Joseph Williamson of Poplar and Stepney* (London: Hodder and Stoughton, 1963), 20.
[484] Mrs. Layton, "Memories of Seventy Years," *Life as We Have Known It*, 7.
[485] Mrs. Wrigley, "A Plate-layer's Wife," *Life as We Have Known It* (ed.) Margaret Llewelyn Davies, 62.
[486] Mrs. Wrigley, "A Plate-layer's Wife," 62.

impossible standard of household management, they still refused them decision-making autonomy or license to manage as they saw fit.

An honest and revealing autobiography by a woman named Hannah Mitchell provides a unique insight into this subtle and complex relationship between a working-class husband and wife. Mitchell, nee Webster, was born in 1871 in Derbyshire to a poor, farming father and a violently abusive mother. With a mere two weeks of formal education, Mitchell ran away from home at fourteen and earned her living as a domestic servant and, later, as a seamstress. She became very involved in the Women's Suffrage Movement and an active member of the Independent Labour Party. In 1924, she was elected to the Manchester City Council, and was both a Councilor and Magistrate by 1926.

Although obviously blessed with exceptional intelligence, Hannah Mitchell recreates a day-to-day existence that was anything but extraordinary. Despite the radical political messages to which she and her husband were exposed, their lives largely consisted of periodically moving around Derbyshire in search of employment. Her desire for education and self-improvement did little to increase her family's financial viability, and in fact only served to make daily domestic drudgery all the more frustrating to Mitchell.

Regarding her experience preparing for the arrival of her first and only child, Mitchell reveals the reasoning behind her self-sacrifice and her own experience of "male selfishness":

> I must work harder at my dressmaking, let the housework go for a few months, and try to save a little money for the event. But goodbye to all hopes of study and self-improvement: there would be no time even to read, or for fresh air walks in the country. If any modern girl reading this wonders why I did not expect my husband to provide for this emergency, I can only say it would have been useless. His wages were fixed and he could not earn anymore by overtime. Shop hours were long in

> those days, and it was often near midnight when he got home. Besides, I never seemed able to make him understand that money was not elastic. Like most men, he had a comfortable idea that it cost no more to keep two than one. He was not very house-proud, and was content with a comfortable chair and a good fire, and he was so extravagant with coals and light as to drive me nearly frantic when he was at home. At first I tried to get him to reckon up the cost-of-living with me and keep a sort of weekly budget. But he refused, just handing his wages over and leaving all the worry to me. I realized later that I ought to have insisted on his sharing the domestic responsibilities, because I found that he never really valued my contribution to the housekeeping which was often as much as his own.[487]

Here, Mitchell echoes Mrs. Layton's comment regarding the stationary salary of her husband as an important factor in her decision to sacrifice her self-education and to take up further employment during pregnancy. Because a fixed salary meant a man's wage would be the same regardless of any extra effort on his part, it was the working-class wife's individual effort at managing and stretching the weekly pay that determined the standard of living. In this respect, the man's inability to earn more freed him of the responsibility of increasing the family resources as strains upon the budget, such as childbirth or illness, occurred. Not only did the responsibility fall solely on the wife's shoulders, as she was perceived to be the only one who could do anything to improve the situation, but it spared the man the worry of not being able to provide for his family. Once he handed his wife his wages, or her weekly allowance, he could satisfy himself that he had done all he could, and it was his wife's turn to exercise her will over what he had supplied. Any failure to run the household on what he had made would be hers. Such an attitude is evident in Gibbon Mitchell's refusal to establish a budget with Hannah. She perceived his behaviour to mean he would rather remain blissfully unaware of the dire situation in which she found herself, and it is

[487] Hannah Mitchell, *The Hard Way Up: the autobiography of Hannah Mitchell, suffragette and rebel* (ed.) Gregory Mitchell (London: Faber and Faber, 1968), 100.

this perception, and this inability to share her burden with her partner, that increased Hannah's desperation and sent her down the path of sacrifice.

Was this truly Gibbon Mitchell's attitude? It is difficult to tell. Hannah fails to describe her husband's character at length anywhere in her memoirs. Even regarding the start of their relationship, there are no sentimental portrayals, no nostalgic descriptions of newly-wedded bliss: "Married life as lived by my brothers, sisters and friends, held no great attraction for me, but I wanted a home of my own. Perhaps if I had really understood my own nature, as I came to do later, I should not have married, for I soon realized that married life, as men understand it, calls for a degree of self-abnegation which was impossible for me."[488]

Gregory Mitchell, editor of the autobiography and also Hannah's grandson, admits, "In her memoir, her husband seems a shadowy figure,"[489] and is able to fill in the gaps concerning the origins of his grandfather:

> Gibbon Mitchell had started life in poor circumstances like his wife. His father had died after failing as a builder in Stalyridge in Cheshire and had left his widow to bring up a family of eight – a task for which she was quite unfitted…He started work at ten as an apprentice draughtsman, but he later went into the clothing trade where he used his skill to design and make clothes.[490]

When he met Hannah Webster, "Gibbon was already calling himself a Socialist…Both were ideally suited to accept its message. Underprivileged, but intelligent and independent, they were determined to improve their lot…"[491]

Hannah Mitchell's autobiography, edited by her grandson, is made all the more valuable by revealing a family member's perception of the relationship between

[488] Hannah Mitchell, 88.
[489] Gregory Mitchell (ed.), *The Hard Way Up*, 29.
[490] Gregory Mitchell (ed.), *The Hard Way Up*, 29-30.
[491] G. Mitchell, 27-29.

Hannah and her husband, Gibbon Mitchell. Gregory Mitchell is much more forgiving of his grandfather, stating:

> He was in himself a very imposing figure and one fervently committed to the causes which she also espoused. It was indeed he who led her into public life and from her frequent acid comments about male intolerance he clearly had much to endure in his domestic arrangements that many men would not have tolerated had they not been so completely in agreement with her aims and views.[492]

To his credit, Gibbon Mitchell was evidently quite sincere regarding his Socialist beliefs on birth control. Even Hannah affords him rare words of gratitude on this account. Of her long and difficult labour (lasting twenty-four hours and involving forceps) she writes:

> Only one thing emerged clearly from much bitter thinking at that time, the fixed resolve to bring no more babies into the world. I felt it impossible to face again either the personal suffering, or the task of bringing a second child up in poverty. Fortunately, my husband had the courage of his Socialist convictions on this point, and was no more anxious than myself to repeat the experience.[493]

During Mitchell's experience of preparing for childbirth, she clearly felt alone and singularly responsible for preparing for the birth of her son. This occurred in spite of Gibbon's dedication to Socialism and possession of relatively radical reproductive beliefs. Based on Hannah's account, he certainly had been exposed to ideas "of marriage as a comradeship, rather than a state where the woman was subservient to, and dependent on the man," and professed to believe them. Despite the exceptional nature of their relationship, Mitchell did not expect her husband to provide for her pregnancy. Considering her later achievements, it is a testament to the power of this particular brand of "male selfishness" that a woman who could speak publicly and withstand insults hurled at her could feel as though she could not make her husband accept some responsibility for weekly household expenditure. If such a woman still

[492] G. Mitchell, 29.
[493] H. Mitchell, 102.

felt the need for personal sacrifice when expecting, how did "male selfishness" affect those women who found themselves in more traditional marriages?

Mitchell's experience illustrates the frustration of many nineteenth-century women expressed at being accountable for supplying the needs of their families while feeling that their hands were tied. They also expressed great resentment at the worry and lack of unity and support this arrangement created. For a woman to have agency and authority over the provision for which she was being held responsible was not sanctioned by law, by society, by the economy (which would not allow her the same wages as her husband to provide for herself and her family when he could not) and certainly not by her husband. In this way, husbands took the exploitation and inevitable failure of being forced to work for less than a living wage which faced them and passed it over to their wives. This was the ultimate exercise of male prerogative. Despite the maxim "With great power comes great responsibility,"[494] working-class men attempted and often succeeded at retaining their perceived power while relieving themselves of worry and feelings of inadequacy through placing the responsibility and accountability on mothers. Even more than demands and expectations of greater amounts of food, this manipulation of power within the household was a far-reaching example of gender privilege and was the manifestation of "male selfishness" which truly promoted unequal consumption and female food refusal.

Food refusal as a coping strategy

Regarding the tradition of fasting and the self-denial of food among medieval women, Caroline Walker Bynum, in her respected work *Holy Feast and Holy Fast,* rejects the

[494] *Spiderman,* I believe.

idea that it was merely an expression of religious fervour and the examines social, cultural, and psychological factors that made food refusal women's symbolic language of participation in religious life. She writes that regarding food refusal, "Biology, psyche and culture interpenetrated and influenced each other."[495] While Bynum warns against focusing solely on the psychodynamic aspects of individual motivations for food refusal, an exploration of women's self-denial of food would be incomplete without these issues. For, as Bynum writes, just as "social and cultural explanations are necessary," making some consideration of modern psychological understandings of food refusal and how they may have contributed to the systematic nutritional deprivation of nineteen-century women is absolutely required when investigating women's diet and self-denial.[496] The following argument is an attempt to address these issues through disparate, possibly circumstantial, evidence from a range of literatures and sources. The conclusions should be considered very tentative.

As constant worry took its toll on women; they felt they could neither share their burden with their husbands nor seek support elsewhere. Protecting the family from anxiety while being self-reliant were key aspects of this ideal model of wifely responsibility. Describing his widowed mother, one Essex man wrote, "It was very hard for Mother but she still remained the quiet gentle woman in spite of everything, never passed her worries onto us or to relatives or neighbours, how she kept so cheerful to us I do not know, but there she carried us right through until we could all keep ourselves."[497]

The social constraints placed on women's power and the absence of support were extremely psychologically difficult for many women, and it is from descriptions

[495] Caroline Walker Bynum, *Holy Feast and Holy Fast: the religious significance of food to medieval women* (Berkeley: University of California Press, 1987), 206.
[496] Caroline Walker Bynum, *Holy Feast and Holy Fast*, 206-207.
[497] H. E. Major, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/502.

of women's battles with these issues that Victorian and Edwardian stories of food refusal and unequal consumption emerge. A woman who went without food, never worried her children, and who did not seek support from outside sources was the epitome of gracious motherhood and family management. One woman whose father was out of work for sixteen years due to illness wrote:

> …my mother worked like a slave to keep a home over our heads. Not once to my knowledge did she ever ask or receive charity, and never did she run into debt. Scores of times I have seen her sit down to a meal of dry bread, so that we might have a tiny mite of butter on our bread, and yet she never complained.[498]

This example highlights an interesting aspect of food refusal among working-class women: often the sacrifices they made were of nutritional significance to themselves, but of negligible value to the household economy, or nutritional value to children when divided amongst them. This reality supports the idea that the self-denial of food was not a purely "rational" economic strategy: the food which would have offered a mother, without whose skills many households could not and did not survive, much needed calories, when distributed among the family made a questionable difference to their diet. Similarly, refusing food already purchased and prepared saved a family nothing, unless the food was bought and served already accounting for one less portion. While this is possible, most of the women describing food refusal confess to doing it at the table, distributing the food on their plate, or cooking what they would have eaten and giving it to their children so that they could have more: "Mother is, and I should say always has been, in a starved condition. A woman that would give the food to the children and starve herself."[499]

While some women may have been taking the money for food that they would have consumed and saving it, most do not elaborate on how stinting themselves

[498] Mrs. Burrows, "A Childhood in the Fens about 1850-60," *Life as We Have Known It* (ed.) Margaret Llewelyn Davies, 113.
[499] "Cases of Labourers' Wives," *Maternity*, 180.

contributed to the family finances. In one of the letters in *Maternity*, a woman describes her strategy of putting away a tiny amount sugar or tea every week during her pregnancy, ostensibly to have several weeks' worth of staples ready at the time of confinement in order to use her husband's wages from those weeks on the baby and medical attention.[500] Interestingly, this individual does not describe this effort as a personal sacrifice, merely as putting aside an amount that would not be missed. Those who describe food refusal and deprivation do not say how their self-denial translated into stretching the finances. They are often vague about the economic realities of their act, never illustrating if they kept money they would have spent on themselves for lunch or dinner and used it elsewhere. Instead they wrote such things as: "At the time I fell with my second child we were in very bad circumstances, and feeding my first with a bottle, I stinted myself all I could to give him plenty,"[501] or, like one woman speaking about herself in the third person, "The mother, when funds are low, goes without much food, pleading headache, etc., so as to try and blind her husband."[502]

First-hand accounts also illustrate that food refusal was used for a variety of ends, further obscuring the direct connection between non-consumption and feeding the breadwinner or children. The women who confessed to food refusal offered it as a strategy for a range of goals: to purchase household items, to save to afford a doctor or nurse during confinement, to pay rent. The most bizarre example is of a woman who writes: "I am glad to think now that we did our best for our children. I have gone without my dinner for their sakes, and just had a cup of tea and bread and butter."[503] As her children grew up, this woman refused food to "fund" their educations so her sons could learn trades, and when they began earning money themselves, she

[500] "Tea and Sugar Put Away," *Maternity*, 154.
[501] "I overdid myself," *Maternity*, 114.
[502] "Ironing and kneading in bed," *Maternity*, 154.
[503] Mrs. Wrigley, "A Plate-layers Wife," *Life as We Have Known It*, 63-64.

continued to restrict her diet in order to provide them with music lessons! This example shows the practice of women refusing food and distributing it unequally continued even after a family rose above starvation-level poverty. In these instances, women continued to prioritise the saving and purchasing of non-necessities over their diets.

The vagueness over how food denial translated into diverting funds into other areas of the family budget and about how much money women were actually able to "create" via self-deprivation is telling, as is the continuation of self-denial to obtain material goods when the household income would have provided a sufficient diet for every member of the family. One gets the sense from these confessions that the effectiveness of non-consumption and denial was not measured by the tangible results, but rather by the way it made wives and mothers *feel*. Regarding self-denial of food during confinement, one respondent in *Maternity* wrote, "There is no peace for the wife at home. She is still the head and chancellor of the exchequer. If she were confined on Friday, she would still have to plan and lay out the Saturday money, and if it did not stretch far enough, she would be the one to go short or do the worrying."[504] Notice this woman does not write, "…go short *and* do the worrying," but "…go short *or* do the worrying." While this may merely mean that in this woman's experience, a wife's food refusal rectifies the shortfall, I would argue that using "or" instead of "and" signifies that food refusal offers the *escape* from worry. Self-denial allowed women to find the level of comfort that men achieved by handing over their weekly wage: they viewed their food refusal as the final attempt to make ends meet, after which they could do nothing more. Once women resorted to denying themselves food, the fate of the family was out of their hands. No doubt the worry

[504] "State Maternity Homes Wanted," *Maternity*, 89.

continued, but the women who went without were able to feel they had fulfilled their responsibility to the best of their ability, and that at least in this area, they had not failed. The statement "…to go short or do the worrying" reveals the true psychological benefit of food refusal to women: regardless of the impact of their self-denial on their financial situation, and while they still agonised over ends failing to meet, they could take some small comfort in the knowledge that they had exercised every bit of control possible over their finances.

The use of food denial, or even food consumption, to relieve feelings of guilt, worry or stress is not unusual. Terms such as "comfort eating" and "comfort food" are used to explain the way in which food and eating affect psychological well-being, and it is important to recognize that this experience of comfort either from eating or refusal comes from the consumer's perception of well-being, not necessarily from any effect created by the nutritional qualities of a specific food. The effect that consumption or non-consumption has on the psyche has as much to do with the psychological values attributed to a particular food or act of eating, or refusal, as does a food's nutritional value or any tangible benefits of a food's consumption or refusal. Just as finishing one's meal "because there are starving children in China" does absolutely nothing to help hungry Chinese children, but merely fulfils a vague sense of duty or obligation and eases guilt, many of these women write of forgoing meals in a way that saves them no money and offers only negligible nutritional benefit to their children. These are the accounts may suggest a reason as to why food refusal and unequal consumption were ubiquitous and applicable to numerous situations: it made women feel like they had some semblance of control. Food refusal could be applied to supporting the breadwinner, nurturing children, saving or scrimping for anything and everything. By being an elastic item in the budget, either through money spent or food

distribution, wherever there was a need for funds, women felt their refusal to eat would contribute to supplying their families' needs. It was the one area of the budget where women could refrain from providing an adequate supply and not lose any respect in the eyes of husbands, children or neighbours, as long as they themselves compensated for the inadequacy. As discussed in the last chapter, refusing to consume would even increase status as mother, wife and household manager. Even when women spoke with resignation about having to sacrifice their portion of food or giving their husbands extra food, the subtext was that by doing this they could somehow contribute to their desired outcome. An example of true resignation and fatalism, and the only example that illustrates a purely "rational" economic strategy, would be Grandma Selma Woodruff's behaviour: eating her children's dinner, expressing that if there is too little to provide sufficient nourishment for everyone anyway, she might as well have it all. By sacrificing their food, not only did families feel that mothers were doing all they could, but the women themselves felt they were exercising their power to its absolute limit, and more importantly, they felt their efforts were somehow effective. Food refusal was their panacea and their talisman; it was their anti-fatalism.

Elizabeth Roberts returns to the theme of pervasive fatalism of working-class women concerning health and death several times in her work.[505] Ellen Ross describes the resignation to childbirth and family life expressed by poor London women to social investigators and healthcare workers, but questions its authenticity based on the actions and private declarations of working-class women.[506] I believe that female food refusal is another example of women expressing resignation or acceptance of situations while frantically attempting to manipulate and control them. It illustrates

[505] E. Roberts, 18-20.
[506] Ross, 56-57, 98.

that women were not throwing up their hands in surrender, regardless of the fatalism implied by various statements and practices. Food, with its weighty cultural, symbolic, economic and nutritive value was the medium through which women exercised their will. Food refusal turned poverty and gender inequality into control.

On the most basic level of women's rationalisation of eating less – to provide their husbands or other male breadwinners with more food – they were submitting to the popular culturally- and politically-sanctioned model of women's subordination within marriage and family, as well as the gender disadvantage exacerbated by the industrial revolution through unequal wages. Yet, they are also doing battle with poverty and monumental exploitation. Working-class families were dependent upon employers who felt little responsibility for or accountability to their workers. Nineteenth-century men, women and children worked horrendously long hours, and they had to contend with enforced overtime, dangerous working conditions, and pay that was often significantly less than a Living Wage. A woman with a fatalistic attitude would have expressed the belief that nothing she could do would protect her wage-earners from infection, irregular employment or accidents, and may have behaved accordingly. Instead, some women expressed that they felt that better feeding really made all the difference: "…we must give our husbands sufficient food or we should have them home and not able to work…"[507] It is not purely an economic strategy: as was stated earlier, a mother and wife becoming ill from a lack of nourishment could be similarly economically disastrous for a family, alternative strategies to secure sufficient food for the whole family were employed by some women (e.g. something "going short in the home"[508]), and the giving of more food to the breadwinner was inconsistent (i.e. giving extra food to an unemployed man or not

[507] "Out of bed on the third day," *Maternity*, 20.
[508] **SEE PAGE ABOVE**

feeding the children or wife more when they were the sole breadwinners). Food would not change employment practices or regulations, but it translates into strength and health and when given to the breadwinner and children was seen as armour for the family, and served as mental protection for women who needed to feel they had some control over their income and survival.

The relationship between food denial and the feelings of power and control experienced by the refuser are well-documented, and Ellen Ross briefly remarks about the similarity between the behaviour of non-consuming women and that of women with eating disorders: "The mother's 'auto-starvation' as one not particularly sympathetic physician put it in 1904, was partly a sign of a struggle for control resembling in some odd way anorexia as it appears today…"[509] Food refusal as a method to control intra-family relationships has been offered as a contributing factor in the development of eating disorders since Dr. Charles Lasègue first applied the term "anorexia" to compulsive food rejection in 1873.[510] This idea that the pursuit of self-determination was a causal factor was further reinforced with psychiatrist Hilde Bruch's book *The Golden Cage* in 1978, in which Bruch describes anorexia nervosa as an effort on the part of the anorectic to exert control over her body.[511] Freud's interpretation of eating disorders as an attempt to delay the changes of adolescence have contributed to modern beliefs about eating disorders in both clinical and pop-psychology sources. Current thinking about disordered eating promotes the concept that food refusal not only allows the refuser to feel in control of her body and internal changes, but also promotes feelings of control over external forces:

[509] Ross, 54.
[510] Brumberg, *Fasting Girls*, 117; see "Love and Food in the Bourgeois Family," chapter 5 in *Fasting Girls*, 124-138, for descriptions of the connections first made by Lasègue between anorexia and conflict over control of family relationships.
[511] Brumberg, 30.

> Some [teenagers] make the change from childhood into adolescence with only a few minor problems, others however, may have a more difficult time handling the pressures and some may develop eating disorders as a way to cope…If they are in a family where emotional, physical or sexual abuse is taking place, they may develop an eating disorder to gain a sense of control, to block out painful feelings and emotions, or as a way to punish themselves…Being a teenager is not easy and there are many pressures that they face daily. Eating disorders can be very much about control, so if they feel like everything around them is out of control, they may develop one to gain a sense of control."[512]

The refusal of food as an effective means of coping with external difficulties, even those that bear no relation to the act of eating itself, such as family and relationship difficulties, job and academic performance, as well as issues with weight and body image, has been utilised since the middle of the nineteenth century and is continued in its most extreme form (as *anorexia* and *bulimia nervosa*) by many women and men around the world today. Also, one may engage in disordered eating to stimulate feelings of control and to cope with difficult situations without having a full-blown eating disorder. It is not necessary to meet all of the criteria for anorexia or bulimia to have an eating disorder or engage in disordered eating behaviour as one recent study has emphasized: "For most of these women [in this study], the diagnosis was 'eating disorder-not otherwise specified' -- where a person has eating disorder symptoms but does not meet all the criteria for anorexia or bulimia. People with this diagnosis may, for example, have symptoms of anorexia but weigh in the normal range. Or they may purge by vomiting or abuse laxatives, but not binge-eat, as in bulimia."[513] Some

[512] Colleen Thompson, "Teenagers and Eating Disorders" (1996, revised 5 July 2004) <http://www.mirror-mirror.org/teens.htm>, accessed 11 Nov. 2006.
[513] Amy Norton, "Older Women not Immune to Eating Disorders," *Reuters UK* [online], 10 Nov. 2006, < http://today.reuters.co.uk/news/articlenews.aspx?type=healthNews&storyID=2006-11-10T184949Z_01_KRA067744_RTRIDST_0_HEALTH-EATING-DISORDERS-DC.XML&pageNumber=0&imageid=&cap=&sz=13&WTModLoc=NewsArt-C1-ArticlePage2>, accessed 11 Nov. 2006.

women refusing food exhibited signs of disordered eating beyond self-denial and feelings of control, such as the eating one or two foods exclusively within an already limited available selection (such as women who only ate bread regardless of what was on offer for the rest of the family) and the ritualisation of their self-deprivation: "How my mother existed is a mystery. I am reminded of the Lord's saying: 'I have meat ye know not of.' She would sit at the table watching us eat, and she would make little balls of dry bread and put them in her mouth. One of us would urge her: 'Have some dinner, Mother,' and she would reply quite cheerfully: I'll have mine presently.' I cannot remember her having a proper meal with us when we were children. I am sure she lived on heavenly food in those days, for she had little or no earthly food." In this particular instance, the mother was a widow (and therefore the sole breadwinner, and with no adult male present to consume the meat or majority of the calories) and she would eat bread even when the rest of the family was eating stew or vegetables.[514]

Brumberg warns of labelling historical figures, such as ascetic medieval saints made famous for fasting, as anorectics by applying the modern pathology of the disease to past behaviour. She writes, "In order to understand fully the long tradition of female food refusal, one must do more than merely "lay on" psychological constructs drawn from modern life or search out look-alike symptoms." She reminds readers that many illnesses mimic the symptoms of *anorexia nervosa*, such as lack of appetite and weight loss, including tuberculosis and depression.[515] However, very recent research regarding *anorexia nervosa* and other eating disorders suggests that Brumberg's stance may be too conservative, as the traditional parameters defining what constitutes an eating disorder are currently being questioned as based on artefact. While researching the eating and exercise habits of historical individuals and

[514] Joseph Williamson, 21-22.
[515] Brumberg, 45.

posthumously declaring them anorexics and bulimics would be to ignore the context of those symptoms, medical researchers are now starting to address the fact that the etiology of disordered eating is suspect, and that a much broader and more inclusive understanding of disordered eating patterns is necessary to develop effective treatment and a comprehensive understanding of the disease. Too much emphasis has been placed on the social element of eating disorders, i.e. that it is a modern disease that develops in middle-class teenage girls from wealthy nations and that their desire not to consume is intrinsically linked to slimming. Researchers in the late 1990s called for the Diagnostic and Statistical Manual of Mental Disorders (DSM) to re-evaluate their diagnostic criteria for eating disorders, finding it biased by white ethnocentrism, and considering it pivotal in the under-diagnosis of eating disorders in poor women of colour.[516] A very recent Austrian study published in *The International Journal of Eating Disorders* reported surprising findings about eating disorders in women over the age of sixty. Dr. Mangweth-Matzek, who authored the study, told reporters: "It may surprise many people that older women can suffer from eating disorders, as even doctors are largely unaware of the problem…That's because there's been virtually no research into the body-image and eating disturbances of older women."[517] In the recent work *Understanding eating disorders; conceptual and ethical issues in the treatment of anorexia and bulimia nervosa*, Simona Giordano writes:

> Eating disorders are found mainly in middle- and upper-class families in which the mother has an extra-domestic job. These families hold typical middle-class values…Duker and Slade report: "One of the most consistent sociological findings has been that anorexic/bulimic illness occurs predominantly in

[516] Jennifer Daniels, "The Diagnosis of Eating Disorders in Women of Color," *Something Fishy Website on Eating Disorders* [website] < http://www.something-fishy.org/cultural/roles_jd.php>, accessed 14 November 2005. Alternatively see D. Harris and S. Kuba, "Ethnocultural identity and eating disorders in women of color," *Professional Psychology: research and practice,* 28/4 (August 1997), 341-347.
[517] Amy Norton, "Older Women not Immune to Eating Disorders," *Reuters UK* [online], 10 Nov. 2006.

> relatively privileged sections of the community…"(29) The exact reliability of these findings cannot be determined. In fact, it is possible that these types of families are those who are more prone to seek help, and therefore it is possible that the disorder arises equally in other areas of population who either do not consider the person's behaviour to be a problem, or a psychological problem, or would not refer the eating-disordered person to a professional.[518]

The same criticism could, in fact, be made about the earliest medical findings on eating disorders. Firstly, Lasègue was a member of the bourgeoisie as were the patients on which he based his observations of the disease. Sir William Gull was an elite physician knighted by Queen Victoria for services to the royal family. The three cases on which he based his initial papers on anorexia, Misses *A*, *B* and *C* were all from wealthy families.[519] It is doubtful that either physician had sufficient contact with the proletariat to determine whether or not members of the working class suffered from eating disorders, and lays credence to the idea that the reason neither doctor saw *anorexia nervosa* in poorer patients was because they rarely treated poorer patients. Also, from its initial discovery, Lasègue believed *anorexia nervosa* was linked to hysteria, another disease considered to be an affliction of middle-class and aristocratic women, and thus it was associated with the same social implications. Brumberg quotes the surgeon Sir Benjamin Brodie who "declared that he did not see hysterical conditions in females who 'eat their bread in the sweat of their face,'" and writes of Samuel Fenwick who, in 1889, wrote "that anorexia nervosa was 'much more common in the wealthier classes of society than amongst those who have to procure their bread by daily labour.'"[520] Such prejudices, and a lack of contact with a broad social spectrum of patients, caused mid and late-nineteenth-century doctors "discovering" *anorexia nervosa* in middle-class women to fail to see patterns of

[518] Simona Giordano, *Understanding Eating Disorders: conceptual and ethical issues in the treatment of anorexia and bulimia nervosa* (Oxford: Clarendon Press, 2005) 21.
[519] Brumberg, 126; 115-123.
[520] Brumberg, 111.

disordered eating among members of the working-class. Food refusal by nineteenth-century working-class British women is in keeping with and was reinforced by a long tradition of female food refusal and its associations with virtue. Its ability to give the one refusing a sense of comfort and control, as well as creating economic benefits and increasing a woman's status as wife and mother within her family, is may have encouraged the persistence of this practice into the early twentieth century.

The economic and intra-family benefits of food refusal

The economic benefits of food refusal, however limited or imagined, at the time of non-consumption and the immediate future, such as the stretching of the family food budget, had impact on the persistence of the unequal distribution of food within working-class families.[521] However, the potential *long term* economic benefits of food refusal to women, both perceived and actual, are what truly gave this custom staying power. This section will explore how female sacrifice, especially sacrifice in the form of non-consumption, helped women secure their children's affection, future earnings and care in their old age.

As discussed in previous chapters, sacrifice featured strongly in the prescribed role of nineteenth-century motherhood, however when performing this prescribed role many mothers risked their efforts being taken for granted by members of their families, or found that, while their efforts were appreciated, the time and energy required for running a household meant this appreciation was at the expense of a close emotional relationship with their children. Several essays revealed that a mothers

[521] I say "however limited or imagined" because, while there is no way of proving that women's self-denial or unequal consumption themselves food provided them with any economic benefits, many believed it did. One *Maternity* respondent wrote, "I worked and starved myself to make [husband's] sick pay, 12s. per week, go as far as possible," *Maternity*, 43. Also see pages 18, 34, 114, 151, 154, 158 to see women's examples of the direct economic benefits they felt they secured by depriving themselves or eating less than their husbands.

could be defined by and remembered not for their personalities, but for the duties they performed: "My Dad was always singing the well loved hymns and old songs; and as for my Mother she was always busy washing, cooking and mending for us six children," wrote one woman from Clacton-on-Sea about her late nineteenth-century upbringing.[522] When an interviewer asked Mr. E.W. Wiffen if his mother had any interests or participated in any activities outside of home or work, he replied, "No, no, it took her whole time up. She was only typical...There were no women's institutes. It was looked on that a woman's place was in the home, and she had enough to do…"[523] At the end of a long essay describing her father, his business and his musicianship, another Essex woman wrote, "I am afraid that this letter is chiefly about one of my parents: but then what can one say about 'Mother", She was just her own dear self."[524]

Ostentatious sacrifice, however, especially in the form of self-denial, greatly endeared mothers to their children. The actual amount of extra nutrition that children received as a result of their mothers' food refusal was irrelevant to them. As in the case of Mrs. Burrows described earlier in this chapter, her mother's forgoing a 'mite' of butter on bread, regardless of how much more butter she and her siblings could consume, was very powerful and meaningful act, and the image of her mother sitting and eating dry bread in the presence of her children was burned into this woman's memory: "My mother's life was one long life of loving sacrifice. It might be asked how it comes about that with such a mother, we as children should have had such a hard life of it. But the reason was not in any fault of my mother's. No woman in the world ever strove more earnestly for her children's welfare than my mother did."[525]

[522] Mrs. Anne Thatcher, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/485.
[523] Interview with Mr. E.W. Wiffen, ERO, SA 12/508/2.
[524] Mrs. H. Ely, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/486.
[525] Mrs. Burrows, "A Childhood in the Fens about 1850-60," *Life as We Have Known It*, 112-113.

Even when women hid their non-consumption from their husbands (as some did), their children usually witnessed the self-denial of their mothers. Women may have told their husbands that they had already eaten, that they were ill or had no appetite, but children were aware of when their mothers had not eaten earlier in the day, or ate little or nothing when she fed them: "I have told my husband many times that I had had my dinner before he came in, so that there should be plenty to go round for the children and himself, but he found me out somehow, and so that was stopped."[526]

Sacrifice imprinted itself indelibly on the minds of poor nineteenth-century children. In his semi-autobiographical novel, *The Wooden Spoon*, Llewelyn Wyn Griffith wrote about the experience of those children who eventually rose above the poverty in which they were born:

> You rear them, but they go away, as I did. Few of them come back. They prosper elsewhere…some of them. But the memory of their mother's sacrifice rises between them and the joy they have earned overseas. They cannot spend, they cannot escape from that early fear…This brings me face to face with my great difficulty. No matter where I start, I come back eventually to this theme: poverty and sacrifice. I cannot escape it.[527]

Griffith's assertion appears to be true as eighty-odd pages later, he touches on this sentiment again when describing the poverty of his childhood:

> I want to forget those days, if I can, but I do not know how to set about forgetting…I want to separate the memory of my father and mother from the remembrance of the hardship and poverty that clouded their lives, to remember their self-sacrifice without seeing their suffering. Perhaps it is impossible.[528]

Interestingly, Griffith does not mention fathers' sacrifice at the start of the novel, only when he revisits the issue of parental sacrifice. Mothers certainly had an advantage

[526] "A Time of Horror," *Maternity*, 76.
[527] Llewelyn Wyn Griffith, *The Wooden Spoon* (London: J.M. Dent and Sons, 1937) 12-13.
[528] Griffith, *The Wooden Spoon*, 98.

over fathers in securing the loyalty of their offspring, in that, as the primary nurturers, they had more opportunity to form a bond with their children, and their sacrifices played a key role illustrating this bond to children. Maternal advantage seems to have little to do with which parent took responsibility for discipline. It would appear that women frequently punished their children: "We used to obey father more than mother. I don't remember him ever hitting one of us, he had only to look at us to make us mind him. Mother was the opposite not so much patience and we used to get some spankings from her when we were very naughty which I think we sometimes deserved."[529] Also, if the mother was a housewife, spending time with the children at home did not guarantee bonding as her time was occupied with constant work. Comments such as: "Mother was kept very busy all the time as there were three children…" and, "She was always working, my mum," were commonplace.[530] Until the end of the Edwardian period (and many would probably argue still today) child-rearing was considered to be primarily 'women's work' and regarded in the same manner as housework: men might have specific tasks to fulfil that contributed, but ultimately the children's survival was the responsibility of the female parent. This ingrained expectation put fathers at an initial disadvantage further undermined by mothers' responsibility for domestic issues and "moral authority," a situation first recognized by social commentators at the turn of the century. In 1906, Helen Bosanquet wrote:

> Fathers are regarded by the children as plainly inferior to mothers in authority, in knowledge of right and wrong, and, above all, of 'manners.' Talk of the subjection of

[529] Miss L. Allen, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/474. Several essayists remembered their mothers or both parents spanking them. Hannah Mitchell's father was extremely passive while she felt her mother's beatings were downright abusive. Arthur Went recalls his father sending them to bed with no dinner for punishment as "that was better than knocking us about." But it was his grandmother who advised his parents to smack them on the backside: "'That's the best place to hit 'em,' she'd say, 'you can't break the bones there.'" ERO, SA 8/1881/1.
[530] Mrs. Postles, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/493; and Arthur Went, ERO, SA 8/1881/1.

> women! – I doubt if the bare idea of fathers being equal to mothers in rank and authority ever enters the mind of any cottage child under sixteen. From their conversation all my little friends might be fatherless, except for an occasional dramatic recital of how dad 'went and did' something that mother said he 'hadn't ought to,'…Father is generally regarded in the light of mother's eldest child and disobedience in *him* is far more heinous a crime, than in *them*…[531]

Children recognized from an early age that Mother was their champion, and in no way was this more reinforced than through feeding and self-denial. Mrs. Ely, referred to earlier for writing, "I am afraid that this letter is chiefly about one of my parents: but then what can one say about 'Mother", She was just her own dear self," in her Age Concern Essay after cataloguing her father's achievements, likes and dislikes also wrote: "but we never really loved our father very much. We feared him. His word was law, and he could make us cry with a look. Now it is Mothers turn. She was one of the best women who ever lived. We loved Mother very dearly. Gentle, thrifty, and in those days of not much money, made our clothes and kept us clean and tidy."[532] This quotation illustrates how through constant work and sacrifice, a mother might lose her individuality (to the point where her adult child can recall nothing of her personality or achievements outside of her role as "Mother"), yet gain her family's undying loyalty, while a father, enjoying hobbies, recreation and other benefits of privilege, is, as in this particular case, united to his children through a bond of fear.

Ellen Ross writes, "The husband's privileges and dignity could well make him an alien in his household,"[533] and it would appear from oral evidence and autobiographies that they often did. While children hovered around their father's plate to get scraps of the superior meal he had just eaten, mothers would distribute the majority of their dinners or sit at the table with a cup of tea and bread, their sacrifice

[531] Helen Bosanquet, *The Family* (London: Macmillan, 1906), 274-275.
[532] Mrs. H. Ely, "My Mother and Father," Age Concern Essay Competition 1963, ERO, T/Z 25/486.
[533] Ross, 71.

on display for all to see. Such dichotomy bred resentment against fathers while increasing respect for mothers. Arthur Went, born in 1903, remembered meals with his family of fourteen in Essex:

> We used to have plenty of suet pud' and gravy, and potatoes and swedes, and meat if there was enough. Otherwise she [mother] used to say sometimes if she was short on the meat, 'Well, there's only enough meat for those that got to work," – that's one or two of me elder brothers and dad and she said, "But you children left have the gravy. It's just as good as the meat." And I used to think, "Give dad some then!"[534]

While Arthur had very loving memories of his father, his mother emerges from his narrative as the primary caretaker: "She had enough to do looking after us and she did look after us too. And she loved us all."[535] In *The Classic Slum*, Robert Roberts describes the tradition of fathers giving their children bits of their special "relish," such as the top of their egg or the tail of their haddock, and his bitterness towards his own father who would never share his food:

> My father, who had an Olympian contempt for all young children, never indulged us in this fashion…During meal times, Mother serving in the shop, we used to sit in quiet patience while he, appearing from time to time from behind the pages of the *Daily News and Leader*, took a portion of stew or tomatoes and chops from his plate and bobbed back again. At once my eldest sister, a girl with nerves of piano wire, would rise silently step forward and, taking a piece of dry bread from her pinafore, rub it vigorously in his gravy, sometimes popping in her mouth the very tidbit he had left for his next foray. I used to watch, trembling at what might happen. Yet he never caught her. Once or twice he half laid down his paper, staring puzzled at his plate, at the cat, then at Jenny; but she sat grave as a nun beyond the fireplace. None of us though, ever wanted for food.[536]

Roberts informs his readers that, because his family owned a small shop, unlike others in their neighbourhood, they always had sufficient food. "We were lucky and we knew it," he writes. Roberts's older sister's act was not one of hunger or desperation,

[534] Arthur Went, Essex Oral History Collection, ERO, SA 8/1881/1.
[535] Arthur Went, SA 8/1881/1.
[536] Robert Roberts, *The Classic Slum: Salford Life in the First Quarter of the Century* (Harmondsworth: Penguin, 1973; repr. 1977), 117.

but of pure rebellion against a father who indulged in his male privilege without sharing his small luxuries with his children.

As discussed in chapter three**,** mothers were so often associated with food provision that fathers' contributions were often overlooked. In "Memories of Seventy Years," Mrs. Layton, born in 1855, writes of her father, "In his spare time, he learnt the trade of a tailor and was able to augment his small salary by doing work for people who knew him and by growing nearly all the vegetables the family consumed," but then a paragraph later describes him as "a good father and husband up to a point, he left the responsibility of the whole family to my mother."[537] Clearly, Mrs. Layton's father did not simply hand over his wages and leave the worry to her mother. Unlike Gibbon Mitchell, he seems to have made the extra effort to supplement his wages so that the full responsibility did not fall on his wife as more children came. So, what then does Mrs. Layton mean when she claims her father "left the responsibility of the whole family to my mother"?

Mrs. Layton continues to describe her father: "He was a churchman who never missed the Sunday morning service, and he always relieved my mother by taking several of the children with him."[538] The wording she uses is very revealing. By taking the children with him to church, Mrs. Layton's father was not remembered as raising his children as Christians, nor was attention paid to the fact that Mrs. Layton mother did not attend church with him. Rather, in taking the children, he was "relieving" his wife, in the way that a grandparent or neighbour would, not by sharing the responsibility of raising the children or participating in childrearing by providing their spiritual education, but by giving her respite from her exclusive burden. Regardless of whether or not Mr. Layton *felt* he was sharing the burden of

[537] Mrs. Layton, 7.
[538] Ibid., 7.

childrearing, it seems that raising the children, as *perceived* by the young Mrs. Layton (based on her statements and word choice), was entirely the responsibility of her mother.

Apparently, though her father was a church-going man who "never missed the Sunday morning service," his religious convictions were not strong enough for him to see that his children were christened as infants. Perhaps his wife's role of child-rearer was so firmly established that, rather than apathy, Mrs. Layton's father felt to christen his children would to encroach on his wife's territory. Whatever his reasoning, it is almost certain Mrs. Layton was critical of her father's absence from her religious rites of passage. Mrs. Layton and three of her siblings were baptised *en masse* by their mother after the local Vicar's wife, whom her mother was nursing, pointed out the seriousness of this "neglect".[539] The four children were christened after a Sunday service to which their mother had brought them. The man who stood godfather to the children was the local school's caretaker, who was "the only man available," and the family never saw him in the capacity of godfather again. As a child, Mrs. Layton only knew him because he would swear at the schoolchildren and once threw a broom at her. At the end of this passage, she describes her reluctance to be a godmother to an infant in deference to the responsibility one should uphold and writes, "As a mother I would not ask anyone to make such promises for my child. It should be the responsibility of both parents."[540] This example illustrates that to an exceptional degree, the rearing of the children was the responsibility of Mrs. Layton's mother, and that this arrangement reflected badly on Mrs. Layton's father in the eyes of his children. In contrast, Mrs. Layton could not praise her mother enough, and like so

[539] Ibid., 24.
[540] Ibid.

many other descriptions of nineteenth-century mothers, the "evidence" used to support claims of maternal generosity and excellence were food related:

> She was kindness itself, the friend of everybody, and her own enemy, for her good nature was her downfall. She would get into debt to get nourishment for a sick neighbour or food for a family in distress. The worry of meeting all her liabilities and the continual grinding away at work for her own family and working outside the home, at last undermined her once splendid constitution…After several years of ill-health she died. She was a good kind mother, and as I think over what her life was, I feel she could not have done much better for her children than she did.[541]

Descriptions of mothers sacrificing and providing food are likely present in many memoirs for two major reasons. They were appropriate and effective literary devices; as sacrifice and food provision were so associated with exemplary motherhood, writers knew that such examples were ideally suited to portraying their mothers as the gracious, angelic beings they felt them to be. Such literary devices in turn may have reinforced sacrificial behaviour in women. It is also likely that these food-related descriptions of exemplary mothering were surprisingly common for the same reason food-refusal and personal sacrifice were such successful methods of securing children's loyalty and affection: hunger is a powerful incentive to memory. The monotony and insufficiency of working-class diets made deviations from the usual stuff of meals (special treats, gifts of food, sweets from church picnics and outings) particularly memorable. Periods of feast or fast were often recorded in great detail. Seemingly insignificant events involving received food or denial of food during childhood that are rarely mentioned in the autobiographies of well-fed middle-class children are recalled by working-class memoirists entire lifetimes later.[542]

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[541] Ibid., 8.

[542] The exceptions to this rule are autobiographies by middle- and upper-class children sent to stingy boarding schools or whose parents fed them according to strict and limited regimens. See John Ruskin's *Praerterita*, in which he describes his parentally-enforced dietary restrictions which cause him to remember a handful of raisins with ecstasy, Charles Lamb's *Christ's Hospital Five and Thirty*

One such writer was Lucy Luck, who was born in 1848 and raised in a workhouse from the age of three. She divulges precious few early-childhood memories in her autobiography, yet several of these earliest recollections are food-related. The vividness of one memory particularly disturbed her – her disappointment at being desperately hungry and denied a bun by a girl selling them outside her school:

> I cannot tell much more of what passed while I was [at the workhouse school], except just one or two childish things…I think it was Good Friday, I was going out of the gates of the school, when a girl stood in the pathway with a basket of buns on her arm. She said to me, "Do you want any buns?" and I said, "Yes, please!" She then asked me for the money. I said, "I have not got any," and she answered, "Then you can't have any buns." How disappointed I was! I quite thought she was going to give me one, and I cannot tell how many times I have thought of that Good Friday.[543]

Mrs. Luck was not alone in feeling bitter years after being denied food as a hungry child. For Ben Brierley, born in 1825 near Manchester, food (and food-denial) played a significant role in his memory of the coronation of William IV:

> But pageantry and drink were not everything provided to celebrate the glorious event. An ox was roasted in front of the Crown and Cushion. The boiling parts were converted into "stew" to be served out to all comers, the almoner being a woman living near the scene of "dole." I was sent with a jug to get a quart of what the Yankees would call "beef juice." But the woman pushed me aside. "Nawe, thou mun ha' noane," she said; "thy gronfeyther's a Jacobin." Heart broken and empty, I returned home. I had been led to anticipate such a "blow out" as I had never had before; and the disappointment was overwhelming. What had Jacobinism to do with an empty stomach? I wondered; or how was a child of five to reason out the cause that politics should operate as a kind of caste among poor people.[544]

Years Ago, in which he records detailed memories of the hunger experienced by his classmates, or *Father and Son*, where Edmund Gosse recalls his severe childhood diet of pap and milksop.

[543] Lucy Luck, "A Little of My Life," 4.

[544] Ben Brierley, *Home Memories*, 6-7.

By being providers of meals and practitioners of self-denial, Mothers' sacrifices involving food were accorded a very special place in the memories of their undernourished children. Recollections of feeding were often inextricably linked to feelings of love in workers' memories. During Arthur Went's oral history interview, the interviewer asked many questions about his family's domestic existence, which would naturally lead to many stories involving his mother's efforts. Arthur's descriptions of his mother were significantly food related: when asked about his mother's maiden name, Arthur replies, "Miss Cook, and she was a cook by name and a cook by nature and she could cook! Anything!"[545] Asked again later about his mother's cooking skills, Arthur replies that he and his brother used to say their mother could make a meal "out of an old pair of shoes":

> And she'd say sometimes "I don't know what to say but I don't know what to give you for dinner…and we don't cook till dad come home. But, we never worried, we always had a good dinner. We never got down the table hungry. She found something.[546]

When asked what their breakfasts would consist of, Arthur uses the opportunity to again praise his mother's efforts to satisfy her children's appetites:

> We had some bread and dripping and stuff like that, you see, and bread and jam and so on. And then she used to pack our bags for school and take sandwiches to school. We had plenty of good plain food. Never once got down from the table hungry. Never.[547]

Later in the interview, Arthur was asked if the children were taught to respect authority, but Arthur quickly turns the answer into another story of Mum's love, also food-related:

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[545] Arthur Went, SA 8/1881/1.
[546] Arthur Went.
[547] Arthur Went.

> We had to respect Mum and Dad, but they loved us. I'll let you know how kind my mum was, if we was very, very naughty, Dad would say, "Upstairs to bed. No tea." That's how he punished us, you see. That was better than knocking us about. But when he'd gone out in the garden, Mum would come up with some for us. And she'd say, "Don't you tell your dad I've done that!" [*laughs*].[548]

In fact, Arthur's memory of his father's love for his children was also food-related. When asked about discipline, Arthur admits that his father would sometimes spank them, but as before progresses swiftly to a description of his father's kindness, again involving food:

> But that didn't often hurt…because my father loved all of us. You know what, I'll tell you this: when he worked at the gas works, there used to be an old chap come around with homemade rock on a Friday…and [Dad] used to bring us some home. After tea…he go into the kitchen to is food bag…[*whispers excitedly*] we knew where he was going!…and he'd come in with that quarter of rock, only a quarter, holding it as though it was gold, spread the paper on the table, get a couple of knives…and [*makes chopping noises*] a piece each! He'd say, "There, that'll do…"[549]

After this story, Arthur reiterates that his father was "kind" and "Christian." Arthur's description of his father's love ritualises the weekly experience, turning the sweet into a kind of offering. Sentiments like those shared by Arthur Went are common among these autobiographies: working-class children routinely interpreted a gift of food from their parents as an expression of love. When asked about the love between parent and child, hugs and kisses and compliments are not recalled as proof of parental affection, but the purchase of rock on Fridays, liquorice sticks to split between siblings, and always, regular feeding by Mother were the signs that one was cherished. In poor families where parents could not afford non-essentials, children rarely received toys or presents. Sweets were affordable, and gifts of food, like the butter or extra portion mother's denied themselves and pressed on their children, carried significant value.

[548] Ibid.
[549] Ibid.

Feeding meant love and vice versa and it would seem the parent then who was associated with feeding was the one who loved and who was loved in return.

If food and feeding garnered love and loyalty, then why did parents, especially mothers, attempt to secure the love and loyalty of their children? What made this a valued commodity? One answer may be found in the changing domestic arrangements ushered in by the Industrial Revolution. In *Women Workers and the Industrial Revolution, 1750-1850*, Ivy Pinchbeck claims that factory work allowed young people, especially young single women, to earn enough money to keep themselves for the first time in British working-class history. Two agricultural reports in 1845 investigated this phenomenon, reporting with horror that children could and did earn enough as young adults to allow them to move out of the family home and live in lodgings. Their wages allowed them to pay for room, board and washing with a small amount left over to spend or save. This seriously undermined the family economy: children represented a major economic investment involving a large outlay when they were too young to work with the expectation that they would contribute to the family economy in the years between when they started working and when they were married. Many social investigators and parliamentary reports recorded that families struggled the most when they had children to feed and clothe who were all too young to earn. Mrs. Wrigley, raising her family during the 1880s wrote:

> At the time my fifth boy was born, [my husband] was having 26/6 to keep us all and no children at work…I was feeling myself after my eldest boy began to work for 5/- [5 shillings] per week. When the next came to work for another 5/-, and the next went out with newspapers, while the fourth boy, only young, delivered milk, I began to get on my feet…"[550]

[550] Mrs. Wrigley, "A Plate-layers Wife," *Life as We Have Known It*, 63.

An older child's contribution supplemented the parents' income to support those brothers and sisters who were still dependent upon their parents. An older child leaving the household meant that earlier economic investment was lost, and that the parents would have to continue to struggle to raise sometimes ever-increasing numbers of children too young to support themselves. Pinchbeck writes that families who had previously, under an agricultural system of labour, received their children's' wages directly from employers or as a calculated part of a total package of goods and payment (for example payment in truck, accommodation, etc.), had to offer their children incentives to stay in the family home and contribute to its economy. These incentives included allowing them to withhold a portion of their income or returning to them a small amount of pocket money.[551] Almost all children eventually left, as Llewelyn Wyn Griffith states in the above quotation, for marriage or employment, and this was expected, but the incomes of their adolescent children were heavily depended upon by parents. Even children who left for employment, such as domestic service, had their wages paid directly to their parents for a period. These wages extracted families from the second life cycle of poverty that they endured as young children were growing up.[552] Families had to secure the financial contributions of their single working children. For the first time in British history, children could afford to exercise some of the economic privilege enjoyed by fathers. Mothers who could not afford to let a child leave home or to let them retain a portion of their income had to devise other ways of maintaining the loyalty and economic integrity of their offspring.

[551] Ivy Pinchbeck, *Women Workers and the Industrial Revolution, 1750-1850* (London: George Routledge and Sons, 1930), 313.
[552] Llewelyn Wyn Griffith, *The Wooden Spoon*, 12-13; for examples of children in domestic service having wages paid to parents, see Janet Bathgate and Arthur Went; Rowntree, *Poverty*, 137.

Regardless of whether or not the industrial revolution triggered female non-consumption as an economic strategy to secure children's earnings, non-consumption certainly was an effective practice for encouraging children's loyalty. That this loyalty often manifested itself in the form of children offering their full earnings as well as their spontaneous financial contributions likely reinforced the behaviour. Children from a very young age saw their mothers' sacrifices as proof that she would use their money to the best of her ability and to their maximum benefit. The examples of Janet Bathgate and James Bushnell used at the beginning of this section illustrate the faith inspired in children by their mothers' sacrifice and their eagerness to give them not only earnings, but any money they possessed.[553]

Matthew Henry Sheffield from Leicester was pleased to tell his interviewer that he was once awarded five shillings from the headmaster of his school for perfect attendance and no tardiness:

> Interviewer: That was a lot of money!
> Sheffield: It was! We were most pleased, me mother and me, when he gave it.
> Interviewer: What did you do with it?
> Sheffield: I gave it me mother. I think it paid the rent. She was ever so pleased with it, I can remember that.[554]

Similarly, Joe Williamson, while praising Sir Alfred Harnsworth for holding a summer camp for St. Saviour's School at Broadstairs which he attended as a child added: "One thing more this great man did. He gave us all a new half-crown for Christmas, which was a lovely present for Mother."[555] The unquestioning way in which these children gave their earnings and even their unexpected windfalls to their mothers is touching and consistent. Some mothers allowed their children to keep the

[553] See **pages** 94 and 96-97 above.
[554] Interview with Matthew Sheffield, Record Office for Leicestershire, Leicester and Rutland, Mantle Oral History Project, MA200/032/032.
[555] Joe Williamson, *Father Joe*, 32.

money they earned running errands (Arthur Went reported that his mother let them keep their pennies for sweets on the condition that they shared them with their siblings: "If we had a penny, we'd ransack the shop window!"[556]), but often mothers insisted children give them the money from errands, and they were obeyed. Despite recording and admitting to a variety of other mischief and bad behaviour, not one respondent, essayist, or auto-biographer researched for this work recorded withholding money from their mother. Ellen Ross, who writes about this recurrent motif of helping mother and the implicit contract honoured by working-class children in giving their mother their full earnings, mentions that occasionally, "Daughters as well as sons 'cheated' their mothers in small ways, by not 'declaring' tips and overtime pay, for instance," however, she writes that a total breakdown in the "bargain between mother and child" was far less common.[557]

Not only did the loyalty and confidence inspired by self-sacrifice and non-consumption secure unexpected childhood earnings, but also those earned later in life, from factory work, from service and agricultural (when it was not paid directly to the parents, which still occurred well into the nineteenth-century), and even sometimes secured an economic contribution from married children later in life. Mrs. Burrows, whose mother was the one who would sit in front of them nibbling dry bread so that her children might have butter, wrote, "I am glad to know that in the last twenty years of her life, we were able to make her happy."[558]

Regardless of Maud Pember Reeves's conclusion that a man might spend pocket money on himself "without being a monster of selfishness, or wishing to

[556] Arthur Went.
[557] Ross, 160-161; Elizabeth Roberts also comments on this extraordinary obedience, especially with regard to matters involving money, among working-class children in Preston and Barrow, 11.
[558] Mrs. Burrows, "A Childhood in the Fens about 1850-60," *Life as We Have Known It*, 113.

deprive his children of their food,"[559] the examples of Hannah Mitchell and Mrs. Layton reveal that men's use of privilege, and much of men's absence from household management and child-rearing were interpreted by wives as blissful ignorance and neglect, in other words, selfishness. Food denial allowed women to cope with the excess financial and emotional responsibility this selfishness created, as well as ensuring that their children viewed their father's male privilege as selfishness as well. Food refusal was an optimal economic strategy based on its gender associations and the role of sacrifice in the nineteenth-century construct of motherhood. However, non-consumption was not merely an economic strategy, for while it offered a slight advantage in the short term and a distinct long-term economic advantage by securing the loyalty and financial support of their children while they resided at home and sometimes longer,[560] it also served as a form of psychological comfort to women by allowing them a sense of control over the lives of their families despite their poverty and lack of political and social power. All of these reasons were ultimately responsible for the creation and persistence of the phenomenon of food refusal by working-class women throughout the long nineteenth century.

[559] Reeves, 152-153.
[560] According to Carl Chinn this loyalty was gender-specific. He writes, "The devotion of most lower-working-class children to their mothers is exhibited not only in the tendency of daughters, and to a lesser extent sons, to prefer to live near that parent, but it also emerges clearly in the great majority of autobiographies written by those who had been born into poor households;" Chinn, *They Worked All Their Lives: women of the urban poor in England, 1880-1939* (Manchester: MUP, 1988), 45.

Part III:

The Effects of Diet on Women's Health, Pregnancy and Children

Chapter 11

The Effects of Rickets on Nineteenth-Century Childbirth and Pregnancy Outcomes

Soranus, a Roman physician in the 1st and 2nd century AD, had noted bony deformations more frequently among infants residing in Rome that Greece, and attributed such a variation to a lack of nurture and hygiene by Roman mothers.[561]

-K. Rajakumar

Being a deficiency disease, the role played by rickets in childbirth is an example of how diet and nutrition affected the health of nineteenth-century, working-class women and their children. Caused by insufficient amounts of vitamin D either consumed or synthesized within the skin, rickets is characterised by thickening of the joints and bone malformation, most often of the legs, chest and skull, and was extremely prevalent in England and Scotland until the First World War.[562] While recent studies done by historians and anthropometric data from the early twentieth century suggest that there was little bias in the amount of food male and female children received within late nineteenth-century households (or at least, that there was less bias against female children than there was against female adults), rickets offers an example of how the effects of unbiased underfeeding were not necessarily equal.[563] Due to the nature of the reproductive process, rickets had a disproportionately negative effect on women's health. Given its prevalence among working-class

[561] K. Rajakumar, "Vitamin D, Cod-liver Oil, Sunlight and Rickets: a historical perspective," *Pediatrics*, 112/2 (August 2003), 132-135.
[562] M. Benson and J. A. Fixen (eds), *Children's Orthopaedics and Fractures* (London: Churchill Livingstone, 2002), 96-98.
[563] Bernard Harris, "Gender, health and welfare in England and Wales since industrialisation," conference paper, delivered 27 June 2007 (provided by supervisor), 6; K. McNay, J. Humphries, S. Klasen, *Death and Gender in Victorian England and Wales: Comparisons with Contemporary Developing Countries*, DAE Working Paper No. 901 (Cambridge: Cambridge University, 1998) 25-26; See Dr. Ethel Elderton's survey of elementary school children, 1906, analysed by E. C. Petty in "The Newer Knowledge of Nutrition", 215 – 217. While the ratios of the prevalence for stunting compared to the prevalence of low weight for age were nearly identical for boys and girls in each social class observed, stunting (height for age falling below the third centile of the standards of the National Centre for Health Statistics [WHO, 1983]) was significantly more prevalent in boys than girls. This may indicate that if feeding were biased, it would have been in favour of the female children.

Victorians, a study of the consequences of rickets on the uniquely female experience of childbirth is extremely pertinent to the exploration of the way in which working-class women's diet affected their health and the health of their children. It is the goal of this chapter to draw attention to this fact, give special attention to the suffering exclusive to female victims of rickets and to examine the significance of rickets on the outcomes of nineteenth-century, working-class pregnancy.

Usually developing in early childhood, rickets creates childbirth complications by distorting the pelvis. Rickets is caused by a lack of vitamin D which prevents calcium and phosphorus metabolism. Bone fails to mineralise and is too soft to withstand the weight of the individual.[564] Pressure from the weight of the upper body squashes the softened pelvis, and the front of the pelvis, the symphysis pubis, is pushed down and backwards, minimising the pelvic inlet and blocking the foetus's exit from the uterus.[565]

Proving that the working-class diet was the sole factor in the pervasiveness of rickets is difficult, as the contribution of photolysis to vitamin D stores continues to be debated by the medical community. Doctors are still trying to establish the amount of interference caused by air pollution in the absorption of the ultraviolet B rays necessary to synthesize vitamin D. Modern orthopaedic medicine advises physicians to treat rickets with oral vitamin D supplementation, and teaches that "nutritional rickets can be prevented by exposing the skin to summer sunlight," but that occasionally "this is not possible or unacceptable," (as is sometimes the case in countries where people, often women, are compelled to dress extremely modestly, so

[564] M. Benson and J. A. Fixen (eds), *Children's Orthopaedics and Fractures* (London: Churchill Livingstone, 2002), 96-98.
[565] Irvine Loudon, *Death in Childbirth: an international study of maternal care and maternal mortality, 1800-1950* (Oxford: Clarendon Press, 1992), 131.

that not enough skin is exposed to create sufficient amounts of vitamin D).[566] In her doctoral thesis, "The Newer Knowledge of Nutrition", Elizabeth Petty writes of the decline in the prevalence of rickets in the United Kingdom during the interwar years in England and Scotland, claiming, "This change in the nature of the disease was almost certainly due to a decline in the dietary requirement for Vitamin D resulting from clean air legislation and the subsequent reduction in atmospheric pollution."[567] However, the Canadian Paediatric Society currently claims, "In Canada, infants and children cannot depend on adequate skin exposure to sunlight for vitamin D synthesis due to our northern latitude," and the modest fashions of the Victorian era would have meant that men, women, and children would not have been able to take full advantage of the limited sunlight and weaker UVB rays of the UK.[568]

To create adequate stores of vitamin D in latitudes above 40 degrees north requires exposure of face, hands and forearms for 15 minutes three times weekly throughout spring, summer and autumn. This would have been nearly impossible for indoor workers or urban workers wearing nineteenth-century clothing. While atmospheric pollution was certainly a contributing factor (and while I would speculate that children's enclosure in factories and mines during daylight hours until the Factory Acts were made effective was probably more of an environmental contributor to rickets than air pollution), pollution or no pollution, it is impossible to get sufficient

[566] M. Benson and J. A. Fixen, (eds), *Children's Orthopaedics and Fractures*, 96-98.
[567] Petty, "The Newer Knowledge of Nutrition," 209.
[568] Ward, Zlotkin and Ladhani, "Vitamin D deficiency rickets," Canadian Paediatric Society, http://www.cps.ca/english/CPSP/Studies/Rickets.htm.> accessed 24 Sept. 2005. A recent surge in cases of rickets and osteomalacia (adult rickets) among the Muslim community of Britain has caused medical officials to warn Muslim women that wearing veils, such as the niqab, which only exposes the eyes, or the chador, which only exposes the face, may cause vitamin D deficiency. Vitamin D supplementation is recommended which furthers the argument that among modestly-dressed Victorians and Edwardians, dietary sources of vitamin D would have been essential to ward off rickets; "Rickets makes a comeback," Health, BBC News, 21 Aug 2000, http://news.bbc.co.uk/1/hi/health/889890.stm, accessed 30 Sept. 2005; "Rickets upsurge among UK Asians," Health, BBC News, 5 Feb 2001, http://news.bbc.co.uk/1/hi/health/1154211.stm, accessed 30 Sept. 2005; "Rickets rises among city's young," England, BBC News, 26 June 2006, http://news.bbc.co.uk/1/hi/england/bradford/5116438.stm, accessed 16 April 2008.

UVB exposure to synthesise vitamin D in the UK for five months of the year, during which time, vitamin D intake from diet is essential for health:

> In latitudes around 40 degrees north and 40 degrees south (Boston is 42 degrees north) there is insufficient UVB light available for vitamin D synthesis from November to early March. Ten degrees farther north or south (Edmonton, Canada), this "vitamin D winter" extends from mid-October to mid-March.[569]

With London at 51 degrees north latitude and Glasgow 55 degrees north, nineteenth-century residents of these urban areas would have had to rely on dietary sources of vitamin D.[570] Even in rural regions, where atmospheric pollution was considerably less of a problem, rickets remained a health risk for working-class children.[571] Also, wealthier classes (who were probably even more likely to protect their skin from the sun with hats and parasols) were able to easily compensate for a lack of exposure with a diet that included meat (especially meat roasted with the skin on), fish, milk and green vegetables.[572]

Interestingly, Jewish children, who endured the same living conditions and air pollution as other urban, working-class children, had a significantly lower rate of rickets. In 1904, Inspector of Schools, Dr. Alfred Eichholz reported to the Committee on Physical Deterioration in 1904, that his colleague, retired surgeon Dr. Hall of Leeds, found a prevalence of 50% among poor, non-Jewish children, and only 7%

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[569] Jane Higdon, *An Evidenced-based Approach to Vitamins and Minerals: health benefits and intake recommendations* (New York: Thieme, 2003), 79.

[570] Latitude could be one reason for the exceptional prevalence of rickets in Glasgow, despite the universal low vitamin D consumption of working class, but colder temperatures and a shorter summer, limiting sun exposure opportunities, may also contribute.

[571] During his interview by the Committee on Physical Deterioration, Dr. Alexander Scott, from the Glasgow Royal Infirmary, claimed that while "country-bred children were healthier," he reported that a study by his colleague, Dr. James G. Thompson, revealed a rickets rate of 6% among country children (*Report of the Inter-Departmental Committee on Physical Deterioration*, List of Witnesses and Evidence, PP 1904, vol. 32 (Cd.2210), 69-73.)

[572] It is also likely that working-class children were outside in the sun for longer hours than their middle-class counterparts, which may have benefited them. Lack of space for play often forced mothers to permit their children to play in the streets. However, it was also a signifier for class. The more 'respectable' a family was, the more restrictions were placed on their play outdoors, which would have put them at further risk for rickets. See Anna Davin, *Growing up Poor*, 71-72.

among Jewish children of the same class status.[573] Elizabeth Petty attributes this variance to the traditional Jewish diet which included animal fat and oily fish.[574] Lara Marks has also examined the role played by the Anglo-Jewish diet in the comparatively low prevalence of rickets and infant mortality among this immigrant group during the nineteenth century. As she points out in *Model Mothers: Jewish Mothers and Maternity Provision in East London, 1870-1939*, working-class Jews living in London were no richer, nor poorer, than their neighbours, suffered the same standards of housing, and endured the same public sanitation deficiencies.[575] Marks also credits the sanitary practices involved in keeping a Kosher diet with this health advantage as well as the selectivity of British immigration standards which ensured that only healthy, robust emigrants entered the United Kingdom, who were capable of warding off a number of illnesses. However, there is evidence to suggest that British immigration standards were not very selective. In fact, critics of immigration during the nineteenth century bemoaned what they perceived to be a lack in immigration standards for Jews emigrating to Britain (compared immigration controls in the United States), which furthers the argument that it was dietary choices which primarily protected Jewish immigrants from rickets.[576]

Recent medical studies have also suggested that high fibre and excessive cereal consumption "contributes to the excess breakdown of vitamin D."[577] Historically, high fibre and cereal content is characteristic of the impoverished diets of the nineteenth-century working class. Therefore, I propose that the typical

[573] *Report of the Inter-Departmental Committee on Physical Deterioration*, List of Witnesses and Evidence, PP 1904, vol. 32 (Cd.2210), 23.
[574] Petty, 210
[575] Lara Marks, *Model Mothers: Jewish Mothers and Maternity Provision in East London, 1870-1939* (Oxford: Clarendon Press, 1994), 56.
[576] Bernard Harris, "Pro-alienism, anti-alienism and the medical profession in late-Victorian and Edwardian Britain," in W. Ernst and B. Harris (eds), *Race, Science and Medicine, 1700-1960* (London: Routledge, 1999), 199-200.
[577] M. Benson and J. A. Fixen (eds), *Children's Orthopaedics and Fractures*, 97.

working-class British diet would not only fail to supplement insufficient dermal synthesis of cholecalciferol, but it would deplete the body's supply of vitamin D as well. Plainly, diet was a major determining factor in whether or not one developed rickets in nineteenth-century England and Scotland.

Medical historian Irvine Loudon briefly explores the effects of rickets on childbirth in *Death in Childbirth: an international study of maternal care and maternal mortality, 1800-1950*. He writes: "There is an argument that goes thus. Rickets was very common. This could cause major complications in labour and therefore must have been a major cause of maternal mortality…"[578] In the fifteen total pages he devotes to rickets and contracted pelvis (out of 517 pages of text) Loudon argues that, compared to sepsis and toxaemia, rickets was not a great killer of nineteenth-century mothers.[579] However, data which I have collected for this thesis from maternity hospitals catering to the working-class during the nineteenth century reveals that rickets often did prolong labour, thereby increasing the likelihood of the mother sustaining injury or contracting an infection; it often made the use of forceps or other invasive methods of delivery necessary, and frequently forced an attending doctor to terminate a child's life in order to remove it from the womb.[580] Often the complications caused by rickets resulted in permanent or semi-permanent damage to mothers' bodies and lasting discomfort. While Loudon does acknowledge many of these facts, his research remains solely focused on the effect of rickets on maternal mortality only, and not on the cost in infant life or maternal suffering and morbidity.

Loudon laments the lack of reliable medical data regarding the incidence of

[578] Loudon, *Death in Childbirth,* 138.
[579] Loudon, *Death in Childbirth,* 130-143 and 446-448.
[580] Loudon estimates English doctors performed 4-6 craniotomies for every 1,000 deliveries in the middle of the nineteenth century, compared to French doctors who performed on average one craniotomy per 2,000-3,000 births. Loudon attributes the French preference for the Caesarian section to the influence of Roman Catholic beliefs requiring the preservation of the life of the unborn infant even at the expense of the mother's, *Death in Childbirth,* 134-135.

rickets and contracted pelvises among women in the nineteenth century. The absence of reliable and consistent data is a problem that has plagued other historians examining rickets and childhood nutrition. A number of government-sponsored studies done at the start of the twentieth century failed to reach consensus over the prevalence of rickets in the UK, or to even agree on criteria for diagnosis, as addressed by Petty. Indicators of rickets recorded in these studies ranged from knock-knees and parietal bossing (flattening of the skull) to 'deformed jaws' (a condition traditionally associated with rickets, but which has since been proven unrelated to the disease). These studies were also extremely subjective. Dr. Eichholz told the Committee on Physical Deterioration in 1904 that Dr. Hall "would correctly estimate the children [of a poor school in Leeds] showing signs of rickets at 50 per cent," while a Leeds teacher maintained that the prevalence of rickets had decreased from 18% in 1872 to less than 2%.[581] Eichholz attempted to reconcile these discrepancies, but only drew attention to the lack of definite diagnostic criteria when he decreed that the estimate of 50% prevalence in Leeds was accurate, but that all but 2-3% of these cases would "be non-apparent to any but the expert eye."[582] According to Eichholz, the rest were merely cases of rickets being present but, "non-disabling and practically of no effect as regards deformity" which, believed Eichholz was the reason for "differences in view which are likely to arise between medical men and those who are not experts in diagnosis."[583] Of course, as there were no clinical procedures (such as blood or bone density tests) to detect rickets available at the time, he was never pressed to provide evidence to support this theory. A survey of rickets in Glasgow, a city labelled as having 'widespread rickets,' done in 1884 returned a rate of roughly

[581] *Report of the Inter-Departmental Committee on Physical Deterioration*, List of Witnesses and Evidence, PP 1904, vol. 32 (Cd.2210), 23 and 30.
[582] Ibid., 23.
[583] Ibid.

30%.[584] By 1920, A. M. T. Tully's anthropometric survey showed just 4.6% prevalence in Glasgow – suspiciously low when the rate in Durham for the same period as reported by the Medical Officers of Health as being over 80%. Because there were no fixed standards or methods for determination, some respondents to the Committee even failed to estimate finite figures. Sir Charles Cameron, a Medical Officer of Health in Dublin reported that he only saw rickets very rarely, while a health visitor from Sheffield described its prevalence in 1904 as "something terrible."[585]

In order to determine the prevalence of rickets in childbearing women, Loudon uses data from twelve sources, including six lying-in hospitals, five individual doctors' reports, and one report from the Registrar General. Each source contains records that span between one and ten years from 1787 to 1899.[586] Citing the unreliability of pelvimetry, the use of callipers to measure the pelvic cavity externally, Loudon determines that the best estimate of rickets must come from the frequency of obstetric procedures traditionally used for labours complicated by rickets, which included craniotomies (collapsing the infants skull in order to remove it from the mother), embryotomies (dismembering the child to remove it from the womb), and caesareans, as well as the use of long forceps and labour induction (normally done in the late seventh or early eighth month). Loudon also considers recorded incidents of uterine rupture and "obstructed delivery" to be indicators of the presence of rickets.[587]

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[584] Ibid., 73.
[585] Petty, 206-208; *Committee on Physical Deterioration*, vol. 32 (Cd.2210), 73, 406 and 311.
[586] Loudon, *Death in Childbirth*, 138-41. His data is taken from the Dublin Lying-in Hospital, Royal Maternity Charity (London), Guy's Hospital (London), Maternité (Paris), Maternity Hospital (Vienna), Queen Charlotte's Hospital; reports from Doctors Baudelocque (Paris), Merriman (London), Collins (Dublin), James Wilson (Glasgow); and the Registrar General's Report of 1869. He examines 134,423 cases in total, however, for 60,815 of those cases, the data for total maternal death and deaths due to contracted pelvis is listed as "not available," and a further 22, 504 cases have no data available for deaths due to contracted pelvis.
[587] Loudon, 137-140.

Although these procedures were not limited to use on patients with rickets,[588] their use strongly suggests the presence of a deformed pelvis. Loudon writes, "Rickets was not the only cause of a small contracted pelvis, but it was by far the most common cause in the eighteenth and nineteenth centuries and almost the only cause of really gross contraction."[589]

Using these measures, Loudon estimates that complications relating to a grossly-contracted pelvis occurred in only 1 to 5 deliveries per 1,000. He considers this quite low, and calculates that between 1851 and 1900, the range of maternal mortality resulting from contracted pelvises (assumed to be caused by rickets) was a minimum of 1% to a maximum of 11% of the total maternal mortality rates from the twelve hospitals.[590] Loudon admits that these rates offer little to better the understanding of the effect minor degrees of pelvic deformity had on maternal mortality as the women would not likely be recorded as rachitic patients. Nevertheless, he writes of the research done by a Dr. Fleetwood Churchill in 1850:

> From the records of six famous and experienced eighteenth- and nineteenth-century accoucheurs, [Dr. Churchill] found that out of every 1,000 labours the number that was actually normal ranged from a minimum of 914 to a maximum of 990; the mean was 943. This makes it unlikely that long difficult labours from moderate degrees of contracted pelvis (degrees, that is, which allowed vaginal delivery to occur eventually) were common.[591]

Loudon's use of accoucheurs' records, especially those who practised in the late-eighteenth century and the first half of the nineteenth, raises some interesting

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[588] Hydrocephaly is an example of a birth defect which often required the use of forceps, a caesarean, or a craniotomy. This was comparatively rare, however, and often the attending doctor recorded the child as having hydrocephaly or "water on the brain." Interestingly, this birth defect is also nutrition-related and its effects on labour and maternal health will be examined in the following chapter.
[589] Loudon, *Death in Childbirth*, 138
[590] Loudon finds the rates from Queen Charlotte's Hospital to be consistently at the high end of the range, actually exceeding it between 1890-1899 when the rate was 12.8%. Loudon believes this rate to be unrepresentative of the average as pregnant women who were assessed as being high risk, often due to small stature or pelvic deformity, were frequently referred to Queen Charlotte's for their confinements. Loudon, 141-142.
[591] Loudon, *Death in Childbirth*, 143.

questions about his conclusion. Accoucheurs were the celebrity obstetricians of their time. Excepting a small percentage of charity cases, those who could afford an accoucheur would almost certainly have been able to afford a diet consisting of enough milk, fish and animal flesh to ward off the debilitating effects of rickets.[592] While Loudon acknowledges throughout his work that puerperal fever was a disproportionately middle-class risk in childbirth, he makes no consideration for class in his assessment of the effects of rickets on maternal survival, but merely discusses it within the context of total maternal mortality.

How much more likely was a working-class woman to experience complications or death due to a contracted pelvis than to perish from septicaemia? And of the women who died of septicaemia, how many contracted it during a "normal" labour, and how many became infected as a result of hours of poking and prodding with long forceps, making their deaths the indirect result of a contracted pelvis? Loudon writes:

> There is, however, another suggestion which is extremely difficult to prove or disprove. This is the suggestion that minor degrees of contracted pelvis due to rickets led to long labours and sometimes to forceps deliveries in which the risk of maternal mortality was increased, chiefly by predisposition to puerperal fever. In such cases contracted pelvis would not usually be mentioned in the records of mortality. Without records containing detailed accounts of hundreds if not thousands of labours, free from selective bias, no verdict can be given.[593]

Not satisfied with this answer, I have attempted to consider this argument, as well as to re-examine Loudon's evidence and test the conclusions of Dr. Churchill from 1850, by using the records of Guy's Hospital, St. Thomas's Hospital and the General Lying-

[592] Judith Schneid Lewis, *In the Family Way: Childbearing in the British Aristocracy, 1760-1860* (New Brunswick, NJ: Rutgers Univ. Press, 1986), 147 and see also Lewis's third chapter, "The Aristocratic Accoucheur," 85-121; also F. B. Smith, *The People's Health, 1830-1910* (London, Croom Helm, 1979), 18 and 28-30.
[593] Loudon, 142.

In Hospital, all three of London, hoping they might provide a deeper understanding of the prevalence of rickets and its effects among working-class childbearing women.

The data from Guy's Hospital, spanning the years 1854 to 1863, used by Loudon in his twelve-record study was actually taken from a French study done by Léon Le Fort in 1866.[594] However, the data supplied by Le Fort was evidently limited. Loudon writes, "The Guy's Hospital series was largely outdoor cases and is based on the number of craniotomies."[595] Therefore, Loudon's estimation of the prevalence of rickets was based on craniotomies, not uterine rupture or use of forceps, indicating the number of actual cases was likely greater than those estimated from Le Fort's work. When presenting this evidence, Loudon reports that the details of total maternal deaths and deaths due to contracted pelvis for this series were unavailable.

However, the surviving records from Guy's Hospital in the London Metropolitan Archives do offer very detailed statistics for the years 1854-61. This is rather ideal as they would include most of the information used by Loudon via Le Fort, and for 1854-61 total maternal death rates are available, as well as evidence which indicates the presence of a contracted pelvis beyond the number of craniotomies, such as the incidence of uterine rupture and long forceps use. Between 1854 and 1861, Guy's Hospital delivered 11,928 women. Of those confinements, 388 were abnormal presentations – foot, shoulder, and breech presentations – roughly 3.3% of the total confinements.[596] Such deliveries would be considered abnormal according to Dr. Fleetwood Churchill's standards, by which a "normal delivery" is defined as "one in which the head presented and descended regularly, the process being uncomplicated and concluded by natural powers within twenty four hours with

[594] Léon Le Fort, *Des maternités* (Paris, 1866), used in Loudon, 140.
[595] Ibid., 141.
[596] Guy's Hospital Statistical Tables 1854-1862, LMA, HO9/GY/LIB/105.

safety to mother and child, and the placenta was expelled spontaneously in due time," and would fall within the range of Dr. Churchill's estimate that abnormal labours made up 5.4% of all deliveries.[597]

Of the 11,928 confinements, 36 resulted in maternal death (0.3%). A disclaimer at the start of the overview for obstetrics attributes Guy's "high" mortality rate to its willingness to admit terminal and chronically ill patients. A cholera outbreak at the hospital is also said to have affected the death rates, although the hospital (like most maternity hospitals in the 1800s) refused to admit anyone with an obvious contagious illness. At a rate of 3.02 per 1,000 live births, the maternal mortality rate at Guy's Hospital was lower than the national maternal mortality rate of 4.3 per 1,000 in 1861, and only one of the maternal deaths is attributed to cholera.[598]

Eight point three percent of the maternal deaths were attributed to womb rupture, compared to 5% caused by puerperal convulsions (toxaemia). While this rate is lower than Loudon's maximum of 11%, according to these records a contracted pelvis was certainly more of a risk than toxaemia. The rates from Guy's Hospital are also quite useful in that they include "cases attended in connection with the maternity department." In recording the outcomes of both in and out patients, these rates avoid the bias described by Loudon in his survey:

> …many of the statistics were derived from hospitals where, by the second half of the nineteenth century, cases included a varying proportion of specially selected high-risk cases and emergency admissions amongst which there was an excess of cases of contracted pelvis…Thus the use of hospital data may exaggerate the calculation on incidence of contracted pelvis.[599]

Records from later years are not quite so comprehensive. For 1869, the hospital reported 1,929 confinements with five maternal mortalities. None of these

[597] F. Churchill, *On the Theory and Practice of Midwifery* (London, 1850), as quoted in Loudon, 143.
[598] Guy's Hospital Statistical Tables, LMA, HO9/GY/LIB/105.
[599] Loudon, 138.

occurred as a result of puerperal fever or convulsions, nor do they indicate complications arising from rickets. They are listed as two cases of heart disease, one case of pneumonia, one case of broncho-pneumonia, and one case of exhaustion from "no special cause."[600] It must be addressed here that, until 1926, hospitals were only required to report cases of puerperal fever if they resulted in death, so its listing among causes of maternal mortality may not reflect the actual risk of contraction.[601] Another danger of determining rates of maternal death from maternity hospitals is their tendency to under-report. F. B. Smith warns of taking such figures at face value:

> These rates are bad enough in terms of preventable death…but before we interpret them we must measure their limitations. They under-represent the numbers. Deaths in childbed were underreported throughout the period: probably grossly so until the 1880s. Doctors, midwives officials of lying-in hospitals and Poor Law Guardians all had an interest in keeping the numbers down…until the 1880s when reporting procedures were tightened, women deceased in childbed who had shown symptoms of heart disease, dysentery or 'peritonitis' were entered under that particular heading, irrespective of whether they had also displayed more proximate causes of death, such as extensive infection or haemorrhage.[602]

However, what can possibly be ascertained from this set of statistics is a general idea of confinements affected by rickets without necessarily resulting in maternal death. In 1869, the hospital reported using the long forceps fifteen times and performing two craniotomies. In 1874, 2,449 confinements resulted in seventeen maternal deaths (the details of which are not available), and sixteen incidences of long forceps use. The rates are approximately 0.9% and 0.7% respectively. While these rates are within Loudon's range, they indicate that while complications arising from rickets may have only killed 1 to 5 women per 1000, the actual number of complications arising from

[600] Guy's Hospital Statistical Tables, LMA, HO9/GY/LIB/105.
[601] J. Campbell, 'Maternal Mortality' (HMSO, 1924) p.59, as cited by Jane Lewis, *The Politics of Motherhood: Child and Maternal Welfare in England, 1900-1939* (London: Croom Helm Limited, 1980), 123.
[602] F. B. Smith, 14. Also see "Puerperal Mortality," *The Lancet*, 99/2524 (13 January 1872), 55.

rickets during these two years was 9 per 1,000 and 7 per 1,000.[603]

Rates from the St. Thomas's Hospital Obstetrical Department from 30 December 1868 to 7 December 1869 also offer clues to the effects of rickets on maternal health and infant mortality as well as maternal mortality. Of the "1291 cases of midwifery attended by students of the Hospital," 54 were stillborn labours, 4 were the result of a craniotomy and one perished due to a ruptured uterus. By Loudon's criteria, the infant mortality rate due to rickets was approximately 4 per 1000 births (0.4%) and responsible for 9% of the stillbirths, but as one of the craniotomies had to be performed because the presence of an inoperable tumour blocking the birth canal, the actual infant death rate due to rickets was 0.3%.[604] Of the 1291 cases, 39 were "difficult" and 32 were "complicated" (5.5% - just slightly over Dr. Churchill's estimate of 5.4% of all labours being abnormal). Five of these abnormal labours are attributable to a contracted pelvis due to rickets. In three cases, the doctors resorted to a craniotomy; in one case, the patient's uterus ruptured killing both her and her child; and in one instance, doctors decided to induce labour in the seventh month with a successful outcome for both mother and child. This evidence gives a result of rickets affecting the outcomes 0.3% of births that year, and complicating 0.39% of the confinements attended at the hospital.

Thus far, the results obtained from Guy's Hospital and St. Thomas's Hospital remained within the range of Loudon's rickets-related maternal mortality, although the results from Guy's Hospital are at the high end of the spectrum. To explore Loudon's statement regarding the effect of moderate rickets on the length and difficulty of labour, it is necessary to examine more detailed labour records. Some of the medical officer's reports from the General Lying-in Hospital, London, offer

[603] Guy's Hospital Statistical Tables, LMA, HO9/GY/LIB/105.
[604] St. Thomas's Hospital Medical Reports, LMA, H01/ST/A/60/2, pp. 505-518.

descriptions of each labour and outcome, as well as detailed medical histories of each patient, including cases of childhood rickets.

The records of the General Lying-in Hospital from January to March of 1884 indicate that even mild cases of rickets, or cases of contracted pelvises which had never been formally diagnosed as rickets, often prolonged labours and caused physical damage. For example, consider Patient 38, who was admitted on the 23rd of February. The attending doctor described her as having a "generally contracted pelvis" and she had been diagnosed with rickets as a child. She endured a thirty-three hour labour (which would make her confinement abnormal according to the standards used by Dr. Churchill), causing uterine prolapse. She was delivered without forceps. Her vagina was torn. On the third day following the birth, she developed a fever from which she never recovered. Her symptoms included pain and swelling in her thigh and shoulder, headache, vomiting, and ultimately delirium. She was given brandy, port and morphine. Both she and her child died within the month, never leaving the hospital. Interestingly, the cause of death would probably be listed as puerperal fever or septicaemia, and there would be no mention of the complications, directly related to rickets, leading up to, and most likely causing her infection.[605]

Case 28 had also been diagnosed as having childhood rickets and was described by the attendant as having a "generally contracted pelvis." After a forty-two hour labour, her doctor administered chloroform and used forceps. Both she and her child survived, but she was also left with a prolapsed uterus. Case 53 was recorded as having rickets, but with only a "slightly contracted pelvis." Her labour lasted a mere four hours, but left her with a "projection" of the uterus.[606]

While Loudon discusses briefly the risk of infection associated with a

[605] Medical Officers' Casebook, January-March 1884, General Lying-in Hospital, LMA, H1/GLI/Y10/19/3.
[606] Ibid.

contracted pelvis and the use of forceps to aid delivery, he writes nothing of the risk of uterine prolapse. Uterine prolapse is caused by "stretching and subsequent weakness of the supporting ligaments and fascia. The predominant cause is vaginal childbirth, and prolapse is thought to be most common in women of high parity who have had big babies and prolonged labours." Modern obstetrics warns against allowing a labour to progress too long for this very reason.[607] Of course, in the twenty-first century, this problem can be remedied through surgery to tighten ligaments, or by performing a hysterectomy. The frequent use of caesareans in women of high parity, or in labours that refuse to progress, has lowered the risk of uterine prolapse. However, in the nineteenth century, a prolapsed uterus often caused pain, discomfort, incontinence, and reproductive complications.

A 58-year-old woman writing to the Women's Co-operative Guild in 1914 tells of her prolonged labour thirty-five years earlier, due to the position of the umbilical cord around her child, and the resulting prolapse: "it caused my womb to come down, and I have had to wear something to hold it up until these late years."[608] Most likely, she was given an internal pessary or an external belt to hold her womb in place. At the Newcastle Hospital for the Diseases of Women in 1873 (which, according to its patient register, experienced an odd increase in reported cases of uterine prolapse) one doctor noted that these conditions were often "cured" with pessaries, meaning they relieved the symptoms rather than actually healing and tightening the uterine ligaments.[609] Another woman, whose extended labour and child's craniotomy were due to a hydrocephalic infant, wrote to the Guild, "Having all this to go through, it brought on falling of the womb, and now that I am able to do for

[607] Greer and Cameron, *Problem-based Obstetrics and Gynaecology* (Edinburgh: Churchill Livingstone, 2003), 60.
[608] "Bad Confinements," *Maternity*, 28.
[609] Casebook, Tyne and Wear Archives, Ho/DW/1/1.

my family and attend to my household duties, I have to wear a body-belt, a kind that is worn after appendicitis. I am a ruined woman through having children."[610] Another woman described the suffering she experienced from the effects of a prolapsed uterus while relieving herself: "I hope this communication will not offend in any way. But after the birth of my first baby I suffered from falling womb, and the torture of that was especially cruel when at closet, in more than I can describe. . ."[611] This woman went on to have seven more children, give birth to two still-born babies, and suffer three miscarriages. Her prolapsed uterus did not stop her from trying to fulfil her household duties, nor did a heart condition exacerbated by her pregnancies. She writes, "I could not afford help during pregnancy…My home was very dirty, the children got ragged, meals worse than usual, and each doctor I consulted said I was not fit to do my work and I had not to bother…But what has one to do?"[612]

Interestingly, none of these women, who all suffered from labour complications, mentioned being in hospital, although the second one had two doctors attending her during her first birth (it was very possible that they attended her at home), and the third woman writes that she did not tell a doctor of the suffering she was experiencing from a fallen womb until ten months after the child was born, which suggests she was not in hospital at the time of birth, nor did he attend her. With such cases occurring outside maternity hospitals, one may imagine that the cases recorded in the medical reports may not have "exaggerated" the incidence of contracted pelvis at all. Perhaps the incidence of contracted pelvis in the casebooks is not skewed from that of the general working-class population. Perhaps the hospital rates may even be under-representing the incidence of childbirth complications from rickets.

While it is difficult to prove that the childbirth complications caused by rickets

[610] "I am a Ruined Woman," *Maternity*, 29.
[611] Ibid., 38.
[612] Ibid., 38.

lead directly to maternal death in cases other than uterine rupture, this evidence does offer some understanding as to the prevalence of increased suffering caused by rickets complications, both during labour and for years afterwards. Also worth exploring through this material is the undeniable effect of rickets on infant mortality. Loudon writes that "many obstetricians, however, had become expert at craniotomy." His word choice is revealing as it suggests that rickets-related birth complications had been common enough for doctors to gain *expertise* in performing craniotomies, which would have meant differential infant mortality for those born to mothers with rickets.[613] While the maternal death rate due to rickets was higher in France where Catholicism ensured that the infant's life was often preserved at the expense of the mother's, English doctors were very prepared to perform a craniotomy or embryotomy if they felt there was no alternative to getting the child out of the womb, or if they believed the infant to be dead already.[614]

Often, the same woman would have several craniotomies if she was particularly rachitic and continued to become pregnant (usually against the advice of her doctors). One woman, who was repeatedly admitted to the Queen Mary Maternity Hospital in Newcastle, was confined four times between 1813 and 1824 and had to undergo two embryotomies, one after a labour of 58 hours, but was able to give birth to two children prematurely with minimal difficulty. After her last labour, doctors suggested that all of her future pregnancies be induced at the end of seven months, hoping the infant's size would permit an easy labour. This decision was ultimately irrelevant as she died in the days following the birth of her fourth child from infection.[615]

To further examine the suffering and cost of infant life due to rickets, and to

[613] Loudon, 137.
[614] Ibid.
[615] Medical Report Book, Tyne and Wear Archives, Ho.PM/29, 1.

attempt to establish more links between rickets-associated complications and puerperal fever, I have extracted a sample of sixty-three cases of childbirth occurring between January and March of 1884 from the casebooks of the General Lying-in Hospital of London, which can be viewed in *Appendix A* [**page**].[616] Most of these cases were recorded by the same attending doctor in painstaking detail allowing for in-depth analysis. Unfortunately, this particular doctor only recorded the first forty cases of the casebook – those cases following were recorded by several other doctors who provided detail inconsistently, sometimes neglecting to record such information as infant birth weight or maternal age. Only twenty-three additional cases from this period contained enough detail to allow for similar analysis, bringing the total number of records used in this data set to sixty-three. This sample also has its limitations: it is a relatively small sample (and hence the results of the analyses below should be considered supporting evidence rather than conclusive findings), and the subjects of this sample are not a random assortment. As Loudon warns, hospital statistics usually consist of selected high risk cases that may exaggerate the results. Also, despite the detailed descriptions of labour and patients' histories, these particular doctors sometimes failed to report the birth outcome if the mother died, or to follow-up female patients who had been transferred out of the General Lying-in Hospital for any reason. Finding accurate infant and maternal death rates for this sample required time-consuming cross-referencing with the Family Record Office, London, and even then, the specific cause of death was often not available. The lack of information on cause of death made it difficult to tell if a woman had ultimately died from septicaemia following labour, or from, for example, the scarlet fever for which she had been

[616] General Lying-in Hospital Medical Officers' Casebook, LMA, Ho/GLI/B/19/017.

transferred.[617] Because of insufficient detail on rickets or birth and maternal mortality outcomes, 2 cases had to be excluded from the analyses below.

Once compiled, this sample showed that of the six mothers with rickets, all but one suffered labour complications, compared to 18 of the 55 mothers without rickets. The relationship between a mother with rickets and birth complications was tested using a chi square test. Fisher's Exact Test (two of the cells had an expected frequency of less than 5) gave $p = .025$ for a two tailed test. As the results were less than .05, the association between rickets and labour complications is significant at the 5% level. The number of women with rickets and complications was more than double the expected count of such cases (2.3), while the number of women with rickets and no complications was more than three times less than the expected count of 3.7 cases. Clearly the null hypothesis (that there is no association between rickets and labour complications) can be rejected. These results can be viewed in *Appendix B* [PAGE].

An analysis of the relationship between rickets and uterine prolapse revealed a significant association between these two variables. An unexpectedly high proportion of women with rickets suffered from prolapse (3 out of 6 women with rickets, compared to 3 out of 55 women without rickets). Using a chi-square analysis, the results of Fisher's Exact Test were $p = .010$, illustrating that the association between women with rickets and uterine prolapse is significant at the 1% level. To view these results, see *Appendix C* [PAGE].

The result of the analysis of the effect of rickets on infant mortality was quite surprising. One would expect a strong correlation between infant death and rickets as cases complicated by a contracted pelvis were supposedly rectified with frequent craniotomies. This sample showed that of the 55 mothers without rickets, 5

[617] Ada Wright, case 21, LMA, Ho/GLI/B/19/017.

confinements resulted in the death of the infant. The birth outcomes of the 6 mothers with rickets resulted in 2 infant deaths. These numbers suggested an association between rickets and infant death, however when put to a chi square test, the correlation between maternal rickets and infant death did not show significance. However, with such a result emerging from this very small sample size of 6 rickets cases, it would be very interesting to see if a larger sample would reveal a significant correlation. These results can be viewed in *Appendix D* [**page**]. While these results cannot be used as solid evidence to support an argument for rickets as a significant cause of nineteenth-century infant death, they do suggest a relationship between these variables.

While this sample was far too small to draw any sort of conclusive correlation between rickets and infant death, in light of the results, it is interesting to consider that perhaps nineteenth-century doctors were not as willing to resort to performing a craniotomy or embryotomy as Loudon has suggested, which would have prolonged the suffering of women needlessly and further exposed them to danger. Indeed, some doctors went out of their way to justify the use of a craniotomy or embryotomy when recording their cases. Contrary to Loudon's descriptions of English doctors acceptance of these procedures compared to French medics, these men were far from cavalier in their attitudes toward terminating the life of a foetus. For instance, one woman, admitted at the start of her labour to the Princess Mary Maternity Hospital in 1822, had already had a previous labour terminated "when the operation of Embryotomy was found necessary in consequence of malformation of the pelvis." Her second labour had been induced at seven months and was a success. This third labour did not proceed so well. Two days after she was admitted, an attending doctor discovered that she was "considerably dilated and the head rested on the brim of the

pelvis." By the following morning, the head had not moved. She was fully dilated and the infant's scalp was swelling. Several hours later, two attending doctors decided that "under the circumstances no alternative remained but to proceed to the operation of Embryotomy…as it seemed highly probable that the life of the child had been already destroyed by the long continued pressure on the brain."[618] Admittedly, the doctors' willingness to terminate the pregnancy illustrates Loudon's point – that such procedures prevented rickets from causing the maternal mortality that it may have in other nations, such as France – and that the doctors' actions changed what would have been a dual maternal and infant mortality into an infant mortality and yet another complicated labour. However, they were only prepared to perform the embryotomy after this particular woman, who had a history of childbirth difficulty and intervention, had been allowed to suffer in a labour that refused to progress for more than 58 hours.

Despite Loudon's claim that toxaemia posed a greater threat to nineteenth-century women than the complications arising from a rachitic pelvis, evidence from maternity hospitals and personal accounts suggests that maternal death directly caused by rickets (for example, a ruptured uterus) was far from rare, and perhaps more dangerous and still more difficult to measure, the risk of death from puerperal fever caused by instruments used and interference during the labour was much greater than for those who did not suffer from the disease. Indisputably, infant death rates were certainly influenced by rickets, illustrating that the diet of children, specifically female children, played a major role in the health and survival rates of their potential offspring. Of course, the suffering experienced by rachitic women during and in the years after labour cannot be measured, but nonetheless deserves consideration and

[618] The case of Mary Stephenson, Medical Report Book, Tyne and Wear Archives, Ho. PM/29.

exploration. The medical complications arising and the suffering that resulted from a childbirth plagued by rickets did not occur in a vacuum. It affected how these women cared for their children, and their productivity as members of the workforce, inside and outside the home. Their suffering was directly caused by the unequal effects of poor nutrition on women. This deficiency disease had a heavy impact on the population of working-class British women and on their personal day-to-day existence. This fact must be acknowledged in order to get an accurate picture of working-class women's experience of childbirth and its relationship to diet.

Chapter 12

Families, Food and Spina Bifida in Wales

While the pain, maternal death and debilitation, and labour terminations resulting from the disfigurement caused by rickets offers a solid example of the major impact that childhood malnutrition had on females and their offspring in the nineteenth century, it is no measure of the effect that inadequate maternal diet had on the working-class populations of the UK. Exciting work is currently being done, not just on the influence of maternal weight gain on pregnancy outcomes and infant health, but specifically on the role that institutionalized unequal distribution of resources and the systemic deprivation of women plays in infant health and how those health risks extend into adulthood.[619] While insufficient maternal weight gain during pregnancy is a key factor associated with low-birthweight infants (currently defined as newborns weighing less than 2,500 grams or 5.5 lbs.)[620] and while it carries with it an increased risk of neonatal death, lower respiratory tract infections, neurodevelopmental conditions, and learning disorders, foetal growth retardation is not the only cause of low birthweight.[621] Prematurity is the other main cause of low birthweight, making it difficult to determine the number of low-birthweight infants who died at full term as a direct result of their mothers consuming insufficient calories during their pregnancies.

However, there are certain birth defects that almost always occur as the result of antenatal diet. The most common are neural tube defects including spina bifida and anencephaly.[622] This chapter will examine the history of neural tube disorders in

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[619] S. Osmani and A. Sen, "The Hidden Penalties of Gender Inequality: fetal origins of ill-health," *Economics and Human Biology*, 1(2003), 106-107.
[620] A. Owen, P. Splett and G. Owen, *Nutrition in the Community* (4th edn, Boston: WCB/McGraw-Hill, 1999), 202.
[621] Owen, Splett and Owen, *Nutrition in the Community*, 7.
[622] Originally found on the Florida Birth Defects Registry website, "Folic Acid," <http://flbdr.hsc.usf.edu/professional/folic acid.html> accessed 28 April 2005; now http://fdbr.org

Wales and the extent to which the high folacin levels consumed in the traditional Welsh diet may have offered protection from neural tube disorders in the nineteenth century and the first half of the twentieth. This chapter will explore the possibility that the transition from a poor agricultural diet to the diet of the urban working-class as a result of migration to coal-mining and industrial areas during the nineteenth century may have led to a rural-urban disparity in the rates of spina bifida among Welsh children that lasted well into the twentieth century. Interestingly, the evidence regarding spina bifida in Wales suggests that in rural areas where there were fewer cases of spina bifida and neural tube disorders, food was distributed more or less equally among family members, and that food distribution in urban areas, where rates were high, was less egalitarian. While the evidence of a rural/urban variation in the distribution of nutritional resources is not sufficient enough to be conclusive, it suggests that spina bifida may potentially be a very direct way to measure the health outcomes of systematic nutritional discrimination against women.

Neural tube defects are believed to be caused by a combination of genetic predisposition and a maternal folacin deficiency, a dietary factor, at the time of conception and during the first weeks of embryonic growth. Folacin, also known as folate, is a naturally occurring B vitamin (B9) and is found in a variety of foods including green vegetables, grains, nuts, legumes and citrus fruit.[623] In adults, it is necessary for red blood cell formation and growth. In foetuses, it is responsible for the healthy development of the brain and spinal column. Without sufficient levels of folacin in the mother's body at the time of and several weeks following conception,

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where this article is no longer available but may be found at <http://web.archive.org/web/20050103115054 /flbdr.hsc.usf.edu/professional/folicacid.html>.

[623] Folic acid, currently recommended to women in their childbearing years, is the synthetic version of folacin.

the neural tube of the embryo fails to close properly. These defects seem to occur with increased frequency if the mother has a family history of neural tube disorders.

Sometimes the malformation is minimal – a gap between vertebrae – which creates no debilitating effects. Often this type of malformation, termed *spina bifida occulta*, is unnoticeable without an ex-ray, and remains largely undiagnosed. The two types of spina bifida exhibiting visible deformities are referred to collectively as *spina bifida cystica,* which manifests itself as a large cyst or sac on the spine above where the malformation has occurred. Ten percent of these cystic cases are referred to as *meningocele,* in which the sac contains only cerebral spinal fluid. These cysts can now be removed with surgery, and often they result in little or no disability. Ninety-percent of *spina bifida cystica* cases present themselves as *myelomeningocele,* in which the spinal cord has poked through the gap between the vertebrae and is exposed. In twenty-percent of these cases, the myelomeningocele is a closed neural tube disorder ("closed NTD"), in which the exposed cord is covered by skin or the thick membrane of the cyst. However, eighty-percent of myelomeningocele cases are "open NTDs," characterized by an open lesion in which the spinal cord is exposed and the leaking cerebrospinal fluid. Although both types of myelomeningocele can be superficially repaired with surgery, the infant often suffers permanent disability: bladder and bowel dysfunction, and motor control and sensory loss below the waist, and paralysis below the lesion. The majority of infants with an open myelomeningocele suffer from *hydrocephalus* (known as *hydrocephaly* in the US), an accumulation of cerebrospinal fluid around the brain, which causes the skull to

expand and places pressure on the brain, often resulting in mild to severe learning disorders.[624]

Other NTDs resulting from a folacin deficiency include *anencephaly* and *encephalocele.* The former is a condition in which the brain itself and the skull fail to form completely resulting in the infant's death, usually within forty-eight hours of birth, and the latter involving a cyst which emerges from a small gap in the skull containing membranes or brain matter. Modern surgical procedures to remove encephaloceles usually result in a fifty-percent chance of mental retardation in cases where the infant survives.[625]

The treatment of neural tube disorders has advanced remarkably in the twentieth century. While anencephaly remains a fatal condition, encephaloceles, meningoceles, and myelomeningoceles can often be removed swiftly after birth, reducing the risk of meningitis responsible for the inevitable mortality that characterised these defects during the nineteenth century, although the spinal cord damage which accompanies myelomeningoceles remains irreparable. The invention of a shunt to treat hydrocephalus by removing the excess cerebrospinal fluid surrounding the brain and draining it into the heart or stomach cavity has made it possible for those with NTD-related hydrocephalus to survive past infancy and often into adulthood. Before this innovation, created by John W. Holter in 1956,[626] children who developed hydrocephalus as a result of a myelomeningocele were doomed to suffer brain trauma and death at a young age. New methods and models of shunts are

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[624] Andrew A. Lovett and Anthony C. Gatrell, "The Geography of Spina Bifida in England and Wales," *Transactions of the Institute of British Geographers,* New Series, 13/3 (1988), 288-290; Chuck Toporek and Kellie Robinson, *Hydrocephalus: a guide for patients, families and friends* (Sebastopol, CA: O'Reilly, 1990), 16-17.
[625] Nansi James, *Spina Bifida in South Wales: Can it be prevented?* (Swansea: University College, 1985), 9-10.
[626] Craig Basse, "He was a Mechanic, Gifted at Saving Lives," *St. Petersburg Times On-line* (Dec 27 2003) <www.sptimes.com/2003/12/27/Tampabay/He_was_a_mechanic__gi.shtml >, accessed 12 November 2004.

continually being developed to prevent the infections and blockages that still contribute to the reduced life-expectancy of hydrocephalics.[627]

First described in 1085 AD, spina bifida was formally named by famous Dutch physician Nicolaas Tulp in 1637.[628] During the nineteenth-century, doctors were familiar with the disease, if not its causes. On 16 July 1821, Elizabeth Eden gave birth to a child with a neural tube disorder and hydrocephalus at the Princess Mary Maternity Hospital in Newcastle-on-Tyne. With no procedure available to close the myelomeningocele (which apparently was covered at birth with a thin membrane that began to disintegrate hours after the child was born), the doctor could do nothing but describe the condition and its progression: "the child was born with Spina bifida, situated at the junction of the lumbar vertebra...the head was enlarged and very soft...the child gradually sunk and died on the 21st."[629]

Throughout the nineteenth century (and the first half of the twentieth century) spina bifida cystica was untreatable and, except in rare cases of closed neural tube disorders that did not cause hydrocephalus, invariably resulted in death. In those who did not die, their quality of life was terribly affected, without medical devices for managing incontinence and aiding mobility. This defect is a perfect example of maternal diet affecting infant mortality until the medical developments of the 1950s and the realisation that folic acid supplementation could reduce spina bifida cases by eighty percent (which was first suggested in 1965 and confirmed by the late 1990s).[630]

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[627] C. M. Dillon, B. E. Davis, S. Duguay, K. D. Seidel, D. B. Shurtleff, "Longevity of Patients Born with Myelomeningocele," *European Journal of Pediatric Surgery*, 10/Supplement 1 (Dec 2000), 33-4.
[628] T. Furukawa, "First description of spina bifida by Nicolas Tulp," *Neurology*, 37 (1987), 1816, *Neurology Online* < http://www.neurology.org/cgi/reprint/37/11/1816>, accessed 24 November 2004.
[629] Medical Report Book, Tyne and Wear Archives, HO. PM/29, 1.
[630] Florida Birth Defects Registry website, "Folic Acid," <http://flbdr.hsc.usf.edu/professional/folic acid.html> accessed 28 April 2005; now http://fdbr.org where this article is no longer available but may be found at <http://web.archive.org/web/20050103115054/flbdr.hsc.usf.edu/professional/folicacid.html>; alternatively see E. D. Hibbard and R. W. Smithells, "Folic Acid metabolism and human

However, there is evidence which suggests that changes in maternal diet (and possibly intra-family food allocation) which occurred during the nineteenth century in response to the relocation and urbanisation of large sections of the Welsh population due to industrialisation and the growth of the coal mining industry, increased the rate of spina bifida as the century progressed. This evidence comes from a close study of Wales, its rate of spina bifida, its diet and serving traditions, and the changes that may have led to an increased rate of spina bifida in southern industrial and mining districts.

Historically, Wales has one of the highest rates of spina bifida in the world (matched only by Northern Ireland).[631] High rates of spina bifida have been linked with Celtic ancestry, causing spina bifida to be termed "the curse of the Celts."[632] Paediatrics professor A G Watkins first drew attention to the prevalence of spina bifida in Wales in 1950. Following this, Professor K M Laurence, of the Department of Child Health at the Welsh National School of Medicine, and Professor B J Tew commenced an investigation of cases of meningocele, myelocele and encephalocele between 1956 and 1962 in Glamorgan, east of the Neath Valley, and in the mining valleys of Monmouthshire.[633] The rate of these major central nervous system malformations was found to be 8.12 per 1000 births (nearly twice the UK national average at the time) but with considerable regional variations – the highest incidence being in the eastern industrial valleys with rates exceeding 11 per 1,000 births.[634]

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embryopathy," *Lancet*, 1 (1965), 1254; also J. Hall and F. Solehdin, "Genetics of Neural Tube Defects," *Mental Retardation and Developmental Disabilities Research Reviews*, 4 (1998), 269-281.

[631] K. M. Laurence and B. J. Tew, "Natural History of Spina Bifida Cystica and Cranium Bifidum Cysticum: major central nervous system malformations in south Wales, part IV," *Archives of Disease in Childhood*, 46/246 (April 1971), 127; For global data see J. Mark Elwood and J. Harold Elwood, *Epidemiology of Anencephalus and Spina Bifida* (Oxford: OUP, 1980), 87-96, 101.

[632] Nansi James, *Spina Bifida in South Wales: Can it be prevented?* (Swansea: University College, 1985), 14.

[633] James, *Spina Bifida in South Wales*, 14; K. M. Laurence and B. J. Tew, "Natural History of Spina Bifida Cystica and Cranium Bifidum Cysticum," 127.

[634] James, 14; Laurence and Tew, 127; K. M. Laurence, C. O. Carter and PA David, "Major Central Nervous System Malformations in South Wales: incidence, local variations and geographical factors," *British Journal of Preventative and Social Medicine*, 22/3 (1968), 146.

Lawrence and Tew's study was considered to be quite comprehensive, using records from local health authorities, hospitals, general practitioner sources and death certificates. Unfortunately, it was the first of its kind, and records concerning neonatal death from the nineteenth and early-twentieth century are often incomplete and unreliable. According to the *Thirty-First Annual Report of the Registrar General*, figures from 1868 list only one death from spina bifida in North Wales out of a total 14,193 births. Were this accurate, given the current rate of between one and two cases of NTDs per 1,000 pregnancies in the UK, Canada and the United States, it would have been a medical miracle. The rate of spina bifida in South Wales was a more probable one per 2,500 births. However, rates in England for 1868 varied widely, with one for every 1,691.75 births in Lancashire to a single reported case in Leicestershire out of a total 9,782 births.[635]

During this period, such inconsistencies were likely caused by a failure of the birth attendant to register the deaths or the cause of death. Deaths in early infancy are

[635]See the *31st Annual Report of the Registrar-General of Births, Deaths and Marriages for England and Wales (1868),* vol 16 (1870), 159, for number of recorded deaths from hydrocephalus and spina bifida listed by county; for recorded births listed by county, 29. One possible avenue to achieving a more accurate rate of spina bifida in Wales in the nineteenth century was to consider deaths from hydrocephalus. Unfortunately, it is difficult to use rates of hydrocephalus from the nineteenth century as a proxy for spina bifida: aside from NTD's, hydrocephalus in infants can be caused by several other congenital brain malformations, as well as vascular and genetic disorders, and exposure to rubella *in utero*. Hydrocephalus can also be acquired by infants and toddlers, and later in life, through head injuries, meningitis, aneurysms and brain tumours. For example, from 1861-1870, the highest rate of hydrocephalus deaths occurred among 45-54 year-olds, likely resulting from injuries, meningitis and tumors, not latent NTDs. Also, after 1881, hydrocephalus was no longer listed as category under causes of death – one can only imagine that hydrocephalus deaths were then recorded under the classification of "Diseases of the Nervous System," although this is unclear. Such changes made further exploration of this cause of death after 1881 impossible. For rates of death and discussion of nosology changes, see Robert Woods and Nicola Shelton, *An Atlas of Victorian Mortality* (Liverpool: LUP, 1997), 21-23 and 34-38; for information on hydrocephalus see Toporek and Robinson, *Hydrocephalus: A Guide for Patients, Families and Friends* (Sebastopol, CA: O'Reilly, 1990), 14-19; for current rates of NTDs (approximately 0.14 per 1,000 as of 1997 for England and Wales) see Aubrey Milunsky, "Maternal serum screening for neural tube and other defects," in Milunsky and Canick (eds), *Genetic Disorders and the Fetus: diagnosis, prevention and treatment* (5th edn, Baltimore: Johns Hopkins Univ Press, 2004, 721. Also see J. K. Morris and N. J. Wald, "Prevalence of neural tube defect pregnancies in England and Wales from 1964-2004," *Journal of Medical Screening*, 14/2 (Summer 2007), 55-59. According to Morris and Wald, the birth prevalence of NTDs dropped from 3.6 per 1,000 to 0.3 per 1,000 between 1964 and 2004. They estimate that 34 per cent of that decrease was due, not to a drop in the occurrence of foetal NTDs, but to the screening and subsequent termination of NTD pregnancies.

considered by historians to have been the most under-registered of the Victorian era.[636] Stillbirths were sometimes registered as births, but not deaths**.** Most births occurred at home and were attended by midwives who, along with fathers, were responsible for registering births, but midwifery went unregulated for the duration of the nineteenth century and birth registration laws were inconsistently enforced. Midwives were not recognized professionally until the Midwives Act of 1902 which required them to register formally as practitioners with the local health board, however they were permitted to practice without a licence until 1910 and legislation requiring them to register births (and stillbirths) within six hours after birth was not passed until the Notification of Births Act of 1907.[637] Even following this legislation, evidence suggests that the consistent registration of births was no guarantee. A woman from Aberdare, Glamorgan, born in 1914, told her interviewer that there was no midwife in their village in the Rhymney Valley, so that one was sent every two years to write birth certificates. She claimed that the "system was slack and casual," and that her brother never received a birth certificate, so had difficulty proving his identity throughout his life. She believed that the "women who helped at births were only trained by experience."[638] Other interviewees echoed these sentiments: Betty Davies reported that local women helped at childbirth, and that they never called formally trained midwives. While Edith Bailey, born in 1891, had a trained nurse attend her confinements, she knew that a local woman had assisted her mother during labour, and that they "didn't pay for a proper nurse."[639] Doreen Paynton knew of two nurses in her town who were regulated by the Ministry of Health, but that other women without formal training were often called upon to perform midwifery duties,

[636] Robert Woods and Nicola Shelton, *An Atlas of Victorian Mortality* (Liverpool: LUP, 1997), 38.
[637] F. B. Smith, 44-45.
[638] Museum of Welsh Life, transcript of tape no. 8091.
[639] MWL, transcript of tape no. 7841; MWL transcript of tape no. 7843.

and believed that qualifications were not required by law.[640] Mrs. Cordery, born in 1916, informed her interviewer that while there were local district and maternity nurses, women often preferred the cheaper option of paying 1s. for an untrained nurse to help in childbirth.[641] All responded that the women they knew gave birth at home (making hospital records vastly incomplete sources), and that the women they preferred to nurse them through childbirth were also the ones who would cook and clean for them in the weeks following delivery. In Mrs. Cadwallader's village, midwives would stay in the household for ten days after the birth. According to Violet Johnson, 10s paid for a partially-trained midwife's services during labour, and then three weeks worth of household help.[642]

During the nineteenth century, a comparatively low rate of spina bifida in rural areas could easily have been explained due to better death registration in urban areas. However, registration was improving. Between 1881 and 1900, the number of reported cases of spina bifida in England and Wales steadily increased, while there appears to have been a general downward trend in the rates of spina bifida cases per million of the population. To view charts I have created to illustrate this trend, see *Appendices G* and *H* [PAGES].[643] By 1931, the Welsh Board of Health reported that registered midwives attended 93 per cent of the nation's total registered births.[644] Improvements in registration make it even less likely that under-reporting was to blame for the disparity in the rates between rural and industrial areas found by Laurence and Tew in 1950, and necessitates further exploration to find possible

[640] MWL, transcript of tape no. 7839.
[641] MWL, transcript of tape no. 7849.
[642] MWL, transcript of tape no. 7856; MWL transcript of tape no. 7855.
[643] See *63rd Annual Report of the Registrar-General of Births, Deaths and Marriages for England and Wales (1900)*, for number of annual cases and the rate of spina bifida per million from 1881 to 1900, 140.
[644] Welsh Board of Health, *Thirteenth Annual Report of the Ministry of Health 1931-1932* (London: HM Stationery Office, 1932), 271, West Glamorgan Archive Service D/D PRO/MOH/8.

explanations for these variations in the rates of neural tube disorders. By 1950, the southern coal mining areas and industrial valleys of Glamorgan and Monmouthshire had a rate of major nervous system malformations almost triple that of the UK and at a rate 3 births per 1,000 higher than the national Welsh average.[645] By 1970, the prevalence in NTDs was higher in urban areas than in rural ones throughout England and Wales.[646] The disparity in rates between rural and urban areas is puzzling considering the aetiology of the disease. Studies indicate that genetic predisposition to neural tube defects plays an important role in determining whether or not a woman conceives a child with anencephaly or spina bifida.[647] Genetic diseases tend to thrive in genetically isolated areas.[648] However, the Eastern industrial and coal mining areas underwent a population explosion during the nineteenth century. Before 1780, the population of Wales was sparse and relatively evenly distributed. It was a largely homogenous, somewhat impoverished, self-sufficient agricultural society, with a comparatively small upper and middle class. In 1750, the population of Wales was roughly 500,000. By 1900, the population was nearly two and a half million. The iron industry at the start of the nineteenth century brought people to Glamorgan and Swansea, and massive rural depopulation ensued. By 1851, a third of the Welsh population lived in the industrial counties of Glamorgan and Monmouthshire. Coal production and slate extraction after 1850 created new migration patterns, with a small exodus to Wrexham in north-east Wales, and Caernarfonshire in the northwest,

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[645] Laurence and Tew, "Natural History of Spina Bifida Cystica and Cranium Bifidum Cysticum," 127.
[646] Elwood and Elwood, *Epidemiology of Anencephalus and Spina Bifida*, 96. As of 1980, this greater prevalence of spina bifida and anencephalus in urban areas was mirrored in Northern Ireland, Canada and the USA, although interestingly, in Japan, mortality statistics showed no rural-urban difference for NTDs.
[647] Hall and Solehdin, "Genetics of Neural Tube Defects," *Mental Retardation and Developmental Disabilities Research Reviews*, 269-281; Elwood and Elwood, 101.
[648] For examples see P. Rahman *et al.*, "The Newfoundland population: a unique resource for genetic investigation of complex diseases," *Human Molecular Genetics*, 12/review issue 2 (2003), R167-R172; and Christine Zeindler, "Unraveling genetic diseases: researchers make breakthrough," *McGill University Health Centre Journal* (Feb 2003) <www.muhc.ca/media/ensemble/2003feb/genetic> accessed 12 March 2008.

but with the greatest growth occurring in Glamorgan, western Monmouthshire and eastern Carmarthenshire.[649] An estimated 366,000 people migrated to South Wales between 1851 and 1911, mostly from Cardiganshire, western Carmarthenshire, the Aberdare Valley, and even from rural English counties on the Welsh border. The coal industrial areas of Rhonda Fawr and Rhondda Fach experienced their most vigorous population growth between 1881 and 1911.[650] By 1911, 66 percent of the population of Wales lived in Glamorgan and Monmouthshire.[651] If anything, an influx of people from differing geographical areas (even if most of them are of Celtic ancestry) should decrease the occurrences of this disease, or at least it should remain consistent with the areas from which those people originated. Instead, by the middle of the twentieth century, average urban rates of spina bifida in south Wales were roughly double those of the surrounding, depopulated agricultural regions.[652]

In searching for a possible explanation for higher rates of spina bifida in urban areas, researchers have recently explored the association between the presence of lead in drinking water and increased rates of neural tube defects. A study of lead levels and neural tube defects in Lancashire created evidence to suggest that lead may inhibit folic acid absorption and therefore be a cause of neural tube defects.[653] However, a subsequent study of lead levels and neural tube defects in Glasgow found no significant link between lead and spina bifida, although this study did draw attention

[649] Pamela Michael, *Health and Society in Twentieth-Century Wales* (Cardiff: University of Wales Press, 2006), 3-4 and 9.
[650] Dot Jones, "Counting the Cost of Coal," in Angela V. John (ed.), *Our Mothers' Land: Chapters in Welsh Women's History 1830-1939* (Cardiff: University of Wales Press, 1991), 110.
[651] Pamela Michael, *Health and Society in Twentieth-Century Wales*, 4.
[652] James, 14; Laurence and Tew, 127; Laurence, Carter and David, "Major Central Nervous System Malformations in south Wales: incidence, local variations and geographical factors," *British Journal of Preventative and Social Medicine*, 146.
[653] J. P. Bound, P. W. Harvey, Benjamin Francis, Fuad Awwad, A. C. Gatrell, "Involvement of deprivation and environmental lead in neural tube defects: a matched case-control study," *Archive of Diseases in Childhood,* 76 (Feb 1997), 107-112.

to the consistently higher rate of lead in water in poorer areas of the city. Researchers concluded that lead was just a proxy for deprivation:

> Deprivation is a risk factor for neural tube defects and might have been a confounding factor in previous studies looking at the association between such defects and domestic water lead concentrations. This study does not support the hypothesis that levels of lead >10ug/ litre [greater than ten micrograms per litre] in domestic water supplies are associated with a higher pregnancy prevalence of neural tube defects.[654]

Links between deprivation, poverty and class, and neural tube disorders have long been established. Even before the connection between low levels of folacin and spina bifida was first suspected in 1965, low social class was associated with increased incidence of spina bifida. Traditionally, an association with poverty increases suspicion that insufficient sanitation or diet is somehow responsible for an ailment. It follows, then, that the medical community would speculate that a micronutrient deficiency was responsible for spina bifida, and that this suspicion would be confirmed over the subsequent decades.

Ultimately, diet has been established as the factor which, along with genetic predisposition, controls the likelihood of having a child with a neural tube defect.[655] Before the confirmation that folic acid itself was the dietary element that determined the manner in which the spinal column developed, assumptions abounded concerning which elements of a poverty diet were the culprits. Nansi James, writing in 1985 (when folic acid was suspected of playing a role in neural development but while other possible dietary factors in the development of NTDs were still being explored) listed possible dietary causes of spina bifida in her work on NTDs in South Wales. Of

[654] J. E. MacDonell, H. Campbell, D. H. Stone, "Lead levels in domestic water supplies and neural tube defects in Glasgow," *Archive of Diseases in Childhood*, 82 (Jan 2000) 50-53.

[655] Thirty percent of modern cases of spina bifida involve mothers who have difficulty having a child without an NTD despite medical intervention. Doctors believe such women have difficulty metabolising folacin, and that this may be an inherited trait. Modern physicians can sometimes reduce the risk of having a child with a neural tube disorder of those in this 30 percent by dosing them with high levels of folic acid which, in its synthetic form, is more bio-available than naturally occurring folacin.

the studies she explores, one examined possible higher than average rates of anencephaly in families consuming tinned meat and peas and white bread (strangely echoing social critics of working-class diet of the last two centuries), leading investigators to suspect a toxin created in the canning process (interesting considering recent associations with lead, but ultimately a dead end), and another suggested a possible link between high doses of vitamin A and neural tube defects, suggesting that excess vitamin A may inhibit absorption of folic acid or somehow interferes with its metabolism. But ultimately, reminiscent of middle-class Victorian social investigators, she ends this chapter by claiming that, in working-class families, "learning how to budget needs time and effort, and convenience foods can be an easy alternative, especially if the wife is also employed." While this seems almost sympathetic and culturally sensitive, her next point smacks of class discrimination: "A woman who *rarely reads*[656] is not going to find it easy to learn to cook and she is unlikely to study home management and economics..." Her final point does the same: by stating that social classes IV and V, the two lowest-income groups in the study, are "the groups most likely to have a child with spina bifida," and then stating that "Mothers and children often derive enjoyment and sustenance from sweets, chocolates and soft drinks, but these comestibles are totally devoid of vitamins, folic acid and trace elements. While satisfying hunger, they also lead to a loss of appetite at mealtimes, so that fresh seasonal foods appear less tempting, and there is no incentive to spend time and effort on cooking."[657] James insinuates that eating junk food and poorly cooked meals are specifically an element of working-class culture, which ultimately places the blame for excess rates of spina bifida squarely on the shoulders of mothers, like generations of social commentators before her. With no knowledge of

[656] Italicized for emphasis.
[657] James, 18.

the etiology of this disease, very little understanding of the role of folacin and its bioavailability (in 1985, folacin had only recently been differentiated from Vitamin B12), and no questioning as to why the urban poor seemed to suffer more from NTDs than the rural poor, James's study perpetuated the prejudices of the century before and brought those studying spina bifida and diet in Wales no closer to understanding rate discrepancies.

Evidence from Welsh historians and oral history interviews has led me to believe that urbanisation and its impact on diet was the reason for the significantly higher rates of spina bifida in industrial and coalmining regions at the middle of the twentieth century, which resulted from major changes in traditional Welsh diet occurring in the late nineteenth century following the mass migration to urban areas. Throughout nutrition history, major changes in the diet of a population, especially the replacement of a major staple with an alternative, have led to the development of widespread micro-nutritional deficiencies. For example, the introduction of maize to Italy after 1524, and the subsequent replacement of wheat-based foods with polenta (made with ground cornmeal), caused widespread pellagra outbreaks due to niacin deficiency.[658] Similarly, beriberi, an inflammation of the nerves causing swelling, breathing difficulties and heart failure, became widespread in Asian cultures following the invention of a mechanized process to create white rice, by removing the bran and therefore the riboflavin contained in this staple food.[659]

As folacin seems to be the variable affecting the likelihood of a genetically pre-dispositioned mother having a child with an NTD, availability, now and in the

[658] Gratzer, 47, 144-145, and 180.
[659] Gratzer, 136-144. Just as replacing a dietary staple can cause deficiency diseases and create a public health epidemic**,** the reverse is also true; see Mary K. Matossian, "Mold Poisoning and Population Growth in England and France, 1750-1850," *Journal of Economic History*, 44 (1984), 669-686, for evidence which suggests the change from rye bread to wheat bread in European diets virtually eradicated ergotism, known as St. Anthony's fire, and also protected women from the miscarriages associated with ergot poisoning.

past, needs to be established. Folacin levels are actually quite difficult to maintain in areas of the world where citrus fruits and juices are not readily available. The current general recommendations of folate intake for women who can potentially conceive is 400 micrograms per day, more for women who have had one child with a neural tube defect or if there is a suspected metabolic problem that might interfere with folate absorption (i.e. various forms of anaemia). Without supplementation, achieving 400 micrograms daily is no simple task and even modern nutritional information is vague and inconsistent enough to make achieving the recommended daily amount a daunting process. For instance, the most recent US Food and Drug administration Fact Sheet, released in February of 1996, and still considered the guiding standard of folate intake for pregnant women lists “whole grains” as providing between 60 and 120 micrograms of folate per 100 grams of food. No further information on which whole grains supply more than others, what constitutes a “whole grain” or how it must be cooked or processed to allow one to receive its full benefit as a source of folate. The same is true for “beans” listed as providing between 50 and 300 micrograms per 100 grams of food. Listing a range of nutrient values without further clarification is quite unhelpful, as according to these guidelines, one could eat one helping of beans to achieve almost the full recommended daily allowance, or one might have to eat eight helpings depending, one can only assume, on the type of beans and how they were prepared. “Green leafy vegetables” provide between 120 to 160 micrograms per 100 gram serving, while “other vegetables” between 40 and 100. Clearly, the way in which this information is presented implies that the FDA actually intends or expects women to achieve these levels using orange juice or vitamin supplements – neither being an option that Welsh working-class women had during the nineteenth century or

the first half of the twentieth. Also, wheat-flour bread, the ultimate staple of nineteenth-century working-class diet, would have provided very little folacin.

However, the pre-industrial and agricultural post-industrial Welsh diet seems to have been capable of providing ample amounts of folacin. The key staples of this diet appear to have been milk and oats, and unlike the Scottish and English, the Welsh appear to have consumed these staples throughout the country, regardless of region or social class, and consistently from the eighteenth century, when oats and wheat began to replace barley and rye as the staple grains of the Welsh diet, until the middle of the twentieth century.[660] The rural Welsh working-class diet remained largely unchanged for the entirety of the nineteenth century, and for the rural working-poor, it altered little until the second quarter of the twentieth century. This entrenchment of the working-class Welsh diet was possibly not only the result of tradition and taste preferences, but nationalism as well. While she acknowledges regional differences in some traditional dishes – cockles and lava bread (fried seaweed) along the coast, or heavier reliance on the bakestone and its produce in North Wales – Bobby Freeman attributes the general uniformity of the staples of Welsh diet to the lack of English integration in Welsh life, and possibly the rejection of all things English. Freeman, a Welsh food historian and writer of Welsh cookbooks writes that Welsh "aristocracy" was comprised largely of Anglo-Norman and English nobility, who brought with them English servants and chefs. She also writes that among the Welsh gentry, "…after the Act of Union 1536, when English law and language superseded that of Wales, Welsh country mansions were run firmly on English lines. Their kitchens thus produced food on the English style."[661] Because of the minuscule amount of actual interaction between the cultures, upper-class English food appears not to have

[660] Bobby Freeman, *First Catch Your Peacock: A book of Welsh food* (Cardiff: Image Imprint, 1980), 19.
[661] Freeman, *First Catch Your Peacock*, 8.

influenced the traditional Welsh diet.[662] In fact, much of the nineteenth-century "English" diet is largely a result of the trickling down of the aristocratic diet onto middle-class tables and ultimately, albeit in a less expensive and less complicated form, to the working class. French chefs cooking for the aristocracy found their recipes modified and prepared by upwardly-mobile middle-class housewives and their staff. The staff was comprised of working-class women, whose appropriated knowledge, along with cookery books for the poor provided by middle-class health visitors, altered the way they cooked for their families. The trickling down of middle-class eating habits, along with the new produce brought into cities due to upper-class demand, changed the English working-class diet continually throughout the nineteenth century. In agricultural areas, the poor and working-class were forced to adapt their diet as a result of external changes, such as the progressive enclosure of common lands and the evolution of the dairy industry (which made milk less available locally), reinforcing the pig as the main source of meat and encouraging potato consumption over wheat in many areas.[663] The lack of aristocratic influence on the working-class Welsh diet, however, allowed the traditional agricultural Welsh diet to remain "remarkably intact."[664] Freeman asserts that while she searched for traditional, national dishes for her cookery book amidst claims that there was no difference between English and Welsh cookery, she discovered that traditional Welsh food was monotonous, oat-based and differed very little from class to class. Trefor Owen mentions similar findings briefly in his forward to *Domestic Life in Wales*. While he discovered the nineteenth-century poor ate food of inferior quality (fattier bacon,

[662] Ibid.
[663] Burnett, 28, 31 and 162.
[664] Freeman, 8; Differences in the process of common land enclosure in Wales compared to England may also have contributed to the persistence of the oat-based diet. The Welsh uplands were largely enclosed after 1845 when more provision was made for rural labourers. See John Chapman, "The Later Parliamentary Enclosures of South Wales," *Agricultural History Review*, 39/2 (1991), 117 and 124.

lower grade grain, adulterated butter) the contents of their diet were remarkably similar. He cites the *Report of the Royal Commission on the Agricultural Labourer in Wales*, published in 1894, which comments on "the absence of any marked differences between tenant farmers and small freeholders and between small farmers and farm labourers in respect of their diet."[665]

Interviews conducted in 1961 by students at the College of Domestic Arts in Llandaff, Cardiff paint a highly detailed picture of the diet of Welsh labouring families during the second half of the nineteenth century. As part of their course, the students were asked to write an essay over their Christmas holiday on "traditional Welsh foods based on information gleaned orally" from elderly people in their home communities. [666] The result is a collection of interviews housed in the archives of the Museum of Welsh Life that describes the diet of South Wales of the previous 100 years.

Milk and oats dominated their meals. "Cawl llaeth,"a breakfast dish, was a broth made from milk and oats. "Llymri" was a very thick oatmeal eaten for supper. "Sycan" was made from the water of soaked and strained oats boiled with milk until thick, then set like a jelly or flan, while "Bwdran" was also made from the boiled water of soaked and strained oats, but to be drunk or poured over chunks of bread and eaten like soup. Most of those interviewed described bread that was made of oats, barley and wheat, grown and milled at home. Mr. D. P. Jones mentioned his family baked oatmeal bread, and served this with mugs of whey to guests during the 1890s.[667] The prevalence of milk and oats in their daily diet did not escape the notice of those interviewed. Bobbie Freeman writes: "Those who lived in this manner did

[665] Trefor M. Owen, foreword in S. Minwell Tibbot's *Domestic Life in Wales* (Cardiff: University of Wales, 2002), xi.
[666] MWL manuscript LL1015.
[667] MWL manuscripts, LL1016, LL1015 and LL1018.

not necessarily recognize it as poverty. On the contrary, words like 'plenty', 'wholesome', 'nourishing' occur frequently in reminiscences of the old Welsh pastoral life in even the meanest surroundings. The food is remembered with relish." She quotes Sir Henry Jones who wrote in his autobiography: "Neither on Sunday nor on a week-day was the meal scanty, or the fun and chatter lean, or was there any faintest hint of scarcity or poverty..."[668] These sentiments were not entirely shared by those interviewed by the CDA students. The attitude that food had been plain and abundant observed by Freeman was by no means unique to the Welsh working class. Many born into working-class agricultural families throughout Britain made similar claims of the "simpleness," "wholesomeness," tastiness and abundance, even, of their mothers' cooking, but many also found the diet monotonous and blamed it on their family's poverty. An excellent example can be found in a CDA essay by Susan Jenkins based on her interview with Mr. D.P. Jones of Aberpoerth. Susan writes, "The food served was plain, simple, but wholesome. In spite of the limited variety of food there was no hint of poverty. However, Mr. Jones did complain to me of the monotonous variety of food. He said that he disliked buttermilk which was given to them often."[669] Mr. Jones informed Susan that "His was a simple, working class family, and therefore his food was of the simplest kind. Milk foods were predominant." Doreen Jones writes of Mr. and Mrs. Evans, born in Llanrystd and Blaenpennal Cardiganshire, respectively that "Both Mr. And Mrs. Evans were born of poor families therefore their daily diet was not varied the same as that of a more wealthy family. Milk and oats were the main subject of their food."[670]

[668] Freeman, *Fist Catch Your Peacock*, 178; for the rest of this beautiful description of his family's meals, see Sir Henry Jones, *Old Memories*, 22.
[669] MWL manuscript LL1018.
[670] MWL manuscript LL1016

It seems that wealthier agricultural families still consumed mostly milk and oats, the frustration of monotony relieved by relishes, puddings and spices, but that the main dishes were the essentially the same. Miss Jones of Abetaeton still ate "bara llaeth" for breakfast, but recalled her mother flavouring it with ginger. She also remembered having custard as a child (unusual as most farming families seemed to sell eggs rather than consume them).[671] A woman interviewed by Gwyneth Morgan claimed that rice was only very rarely used for pudding, a claim reiterated by Mr. and Mrs. Evans, who told Doreen Jones that rice pudding was a "special treat," eaten only on holidays, and that "only the wealthier farmers put butter and sugar in their bwdram."[672]

As for the claims of eating "nourishing" and "wholesome" food, Welsh agricultural labourers seem to have more of a basis for these statements than their Essex or Lancashire counterparts. Besides the ubiquitous milk and oats, farming families in south Wales consumed a significant amount of vegetables, meat, cheese, potatoes, and wholemeal bread. Meals were eaten four times a day – Miss Jones from Lampeter, Cardignashire reported to Enwen Evans that these meals consisted of breakfast at eight, dinner from twelve to one, tea at three, and supper at four.[673] According to Trefor Owen, the hearty Welsh appetite was a source of humour to observers, and the tradition of frequent meals – up to six or seven a day – was documented as far back as the early 1600s.[674] Like the English working class, Welsh labourers usually had a special dinner on Sundays, but while this was often the only

[671] MWL manuscript 1020; Miss Jones interviewed by Alice Jones; eggs sold rather than consumed: LL1019, Ll016 - chickens also kept, not for meat, but purely for eggs which were sold to buy food items that could not be grown or produced locally. These manuscripts describe farming families where protein foods were sold for groceries or manufactured goods, following an economic model like the one described by Timothy Cuff in antebellum America; see 190-192 above. Like in England and Scotland, items such as milk and cream were exchanged between farming households; cattle was often purchased co-operatively and the cuts distributed amongst neighbours and extended family members.
[672] MWL manuscripts LL1019 and LL1016.
[673] Miss Jones, MWL manuscript LL 1015.
[674] Trefor Owen, foreword in Minwel Tibbot's *Domestic Life in Wales*, xiii.

day English children and mothers had an opportunity to eat meat, small amounts of meat were consumed on almost a daily basis by, seemingly, all members of the Welsh labouring household. Some of the CDA interviewees who recalled consuming more expensive foods, like ginger, (indicating they likely grew up in wealthier households) or who were raised in mining villages described having a roast joint every Sunday,[675] but most report just receiving or serving white bread and a pudding along with the usual dinner fare known as "cawl." While bread, milk and potatoes were standard English working-class fare, and oatmeal and oatcakes very common in northern England and Scotland, cawl is uniquely Welsh. Cooked slowly in a cast iron cauldron over a fire, cawl was a stew made from water, oatmeal, various vegetables and any kind of meat available: usually salted pork or beef, but rabbit, tongue, calves' or sheep's head, and fresh lamb were also mentioned as being used to make cawl stock based on availability or for special occasions.

Several interviewees reported that cawl was made two or three times during the week, and reheated for suppers or the next day's dinner with fresh vegetables added.[676] Often it was eaten poured over bread. Just as there were numerous dishes made of milk and oats (some boiled, some jellied, some made with the actual meal, some made from the water of steeped meal with hot milk, cold milk, or sour milk added) a wide assortment of bread was baked by Welsh housewives. Like Yorkshire women, Welsh women continued to bake bread until the twentieth century, only consuming the porcelain-milled white bread so popular with the English working class, known as *bara can,* on Sundays.[677] *Bara cetlan* (kettle bread) was made in a cast iron pot with burning peat heaped underneath and on the lid, and *bara* or *cacen*, was made with *burum cartef* (homemade yeast) or *berman tarfan* (beer yeast often

[675] MWL manuscripts LL 1018, LL 1020, and LL 1037.
[676] MWL manuscript LL 1037.
[677] MWL manuscript LL 1016.

obtained from a pub) and baked in tins in a wall oven.[678] A wide variety of cakes, usually made with lard and currants, were also baked weekly in the wall oven. Flat unleavened oatcakes, which were often spread with butter or crushed and served in milk (a dish known as *siot*), were baked on bakestones (an iron plank or a slab of sandstone – a common Celtic cooking utensil used extensively in north and south Wales). Also cooked on bakestones were potato cakes (known as *bara tato* or *potent tato*) made of mashed potato, butter and milk, and formed into patties.[679]

Like the bread, several CDA interviewees described making cheese and butter at home using milk produced by their own or their neighbours' cows. CDA student Catherine Davies interviewed the oldest woman in her town, known locally as Grandma Glyndraenog, who was born in Ammenford in 1856. Davies writes, "During her early life, Grandma only bought three things from the shops for food, namely rice, tea and sugar. She grew her own wheat and vegetables and reared and killed her own cattle, sheep and pigs."[680] Most of the older interviewees described similar levels of self-sufficiency, several specifically mentioning that their only significant shop purchases were tea, sugar and rice.[681]

Unlike nineteenth-century English agricultural labourers who found buying milk in small amounts to be increasingly difficult,[682] Welsh agricultural labouring families seem to have had very substantial amounts of protein available to them on a daily basis in the form of several daily helpings of milk or buttermilk, liberal amounts of butter, regular meals including cheese and, at the very least, bi-weekly meals including meat. It seems that the usual criticism of the English working-class diet

[678] MWL manuscript LL 1016; descriptions of berman LL1027 and S. M. Tibbot, *Welsh Fare*, 50.
[679] For a description of potato cakes, see MWL LL 1018; For information on bakestones and baking pots and ovens, S. M. Tibbot, *Cooking on the Open Hearth*, 22-24 and LL 10137 for descriptions of their use.
[680] MWL manuscript LL1027.
[681] MWL transcript of tape 7825, manuscripts LL1015 and LL1016.
[682] Burnett, 162.

being high in fat held true for Welsh families as well: cawl broth and lard used in cakes and pastries must have provided ample amounts and while many report drinking skim milk, buttermilk and whey, the milk actually used for cooking or served as part of a dish seems to have been full fat (cheese was made from both fresh and skimmed milk, the full-fat version thought to be healthier as "llaeth scim" cheese was "not as easily digested"[683]). However, the vegetables and whole-grained wheat and oat dishes consumed by Welsh agricultural labourers, and most importantly, the way in which they were prepared, are what made this diet high in fibre, vitamins, and significantly, folacin.

Oats contain more folacin than any other whole grain. In Wales, they were eaten whole or ground to varying degrees of fineness. They were consumed cooked in cawl or in the gruel-like dishes described above, or baked to make bread and small cakes. Bobby Freeman offers a recipe for *dwr blawd ceirch*, or oatmeal water, which she describes as "a very popular drink consumed during harvest time and considered to be very healthy." To make, one must "put three handfuls of oatmeal into a jug of cold water. Mix well and drink at once. It was unnecessary to allow it to settle and clear."[684] This preparation allowed oats to be consumed raw, and therefore allowed the maximum amount of vitamins, minerals and soluble fibre present in the oats to be available, none being reduced by the cooking process. 100 grams oats provide 32 mcg of folacin, which is roughly 8% of the 400mcg recommended daily value.[685] 100

[683] MWL manuscript LL 1016.
[684] Freeman, 181.
[685] There is some disagreement over the amount of folacin in oats. DEFRA offers the rate of 32mcg per 100g serving, while the USDA lists two different values in their on-line databases of 32mcg and 56mcg. When I contacted DEFRA, I was informed that the Food Standards Agency uses the 32mcg in its literature and that the discrepancy in the USDA databases was due to one value being a consumer guideline, while the other value was for commercial use. No explanation was offered as to why this would be the case, and I have received no further information. Therefore, it is possible that Welsh women were getting between 8% to 14% of their daily recommended value with each serving of oats. As four oat-based meals were usually eaten per day, with the addition of spinach, leeks and other green

grams of oats also provide more than 16g of protein, 54mg of calcium, 10g of fibre, 4.7mg of iron. A single serving of oats also provides significant amounts of potassium, phosphorous, selenium, thiamine, magnesium and manganese. Oats were also consumed at almost every meal, in the form of drinks, breads, puddings, porridge, and in cawl. Significantly, even the water that they were soaked in prior to cooking was used to make a variety of dishes, such as *sycan* and *bwdran*, meaning that the vitamins and minerals, including folacin, that leeched into the cooking or soaking water were still consumed.[686] The nutritional difference between this Welsh diet and the white bread-centred diet of the English urban working class is staggering.

Interviewees reported themselves or their mothers using potatoes, cabbage, carrots, swedes, leeks, parsley, turnips, parsnips, onions and "green vegetables" for making cawl. Most of these vegetables are good sources of vitamin C, and again, folacin. One leek (a national symbol of Wales) provides 30mcg of folate (7%DV). Several interviewees made a point of stating the cawl was made by boiling cold water with oats and meat, and then adding the vegetables later in the cooking process, which would allow the vitamin content of the vegetables to be higher and enable the ingestion of higher levels of water soluble vitamins even if all of the broth was not consumed. Once families migrated to cities and mining areas, it seems the traditional diet began to alter slightly. Cawl was made weekly or bi-weekly, and foods such as liver and bacon are remembered in their fried forms by city-dwellers, as opposed to boiled or roasted. Minwell Tibbot writes, "It must be remembered that a very high proportion of the families in the industrial valleys were immigrants from agricultural

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vegetables it is very possible that these women were getting the DRV, or very close to the DRV of folacin every day.

[686] I have found varying rates, but the consensus seems to be that from 65% to 95% of folacin enters cooking water. While some folacin is broken down during the cooking process, eating the cooking water from oats and vegetables in the form of soups and stews, such as cawl, maximizes the amount of folacin that is available in these foods.

areas who adhered to their indigenous cooking methods," to explain the persistence of the open-hearth cooking tradition in industrial areas well into the twentieth century.[687] However, it seems that although traditional dishes remained in cultural memory, as in other areas of the UK the restrictions of urban living forced working women to modify their cooking methods and ingredients. The cost of fuel and smaller ovens reduced the frequency of baking and making cawl. As in London, foods that could be swiftly prepared replaced those that required a slow cooking process. One-pot cooking became obsolete and frying appears to have largely replaced roasting as the cooking method of regular meals. Range ovens allowed for the roasting of smaller joints, sometimes spits were employed for roasting, and mechanical roasting jacks were present in coalmining cottages and homes in the industrial south, but their use was confined to special occasions such as Christmas.[688] Mrs. Warren informed Ms. Bower that the meat was cooked on a spit because "families were large and consequently the joints were too large for the oven." The presence of a spit to roast meat, as well as Mrs. Warren's claim that the family would eat "faggots and peas" and fried meat as a supper dish are in keeping with Tibbot's descriptions of the meals consumed and cooking equipment found in coal-mining households.[689]

Ironically, the tradition of giving men special "treats" or "extras" does not appear to have been as strong in Welsh industrial valleys or coal-mining areas as it was in other areas of the United Kingdom. The only reference to a father eating, in fact demanding, foods not consumed by the rest of the family, and even prepared in a manner differing from the rest of the family, was made in CDA student Jean Bower's interview of a woman born in Ton Pentre in 1866: "Mrs. Warren told me that her

[687] S. Minwell Tibbot, *Cooking on the Open Hearth* (Cardiff: National Museum of Wales Welsh Folk Museum: Cardiff, 1982), 38-39.
[688] Tibbot, *Cooking on the Open Hearth*, 31; MWL manuscript LL1037.
[689] MWL manuscript LL1032

father always insisted on having his bacon for breakfast toasted in front of the fire, and the resulting juice was used to soak his bread."[690] Ton Pentre was a mining town on the Rhondda Fawr river. Homemade cheese, not meat, was said to "give men their strength,"[691] and one Mrs. Jones told CDA student Judith Gallo about the "preparation of men's 'boxes' to go out to work…They usually contained cheese, cubed, or on sandwiches – tomatoes, apples, and Welsh Cakes [thick fried pancakes with currants]. Sometimes jam sandwiches were put in. Never meat as most of the men worked underground and this tended to go dry."[692] Compare this to Robert Roberts's description of the violent arguments between couples when men insisted their wives put meat in the sandwiches they took to work in the factories of Manchester.[693] The notable lack of the "breadwinner effect" or unequal distribution in Wales might be attributable to the persistence of the "communal bowl" method of serving in rural areas. While it had died out in many areas of the United Kingdom in the earlier part of the nineteenth century,[694] the CDA interviews indicate that this practice survived until at least the 1880s in Cardiganshire and one-pot meals which encouraged everyone to consume the same fare persisted well into the first half of the twentieth century.[695]

Unfortunately, despite the Welsh tradition of relatively equal distribution of food within families, and the increased variety of foods available to Welsh urban-dwellers, the replacement of oats and green vegetables with wheat bread and fried and roasted meats and vegetables created a public health problem.[696] The oral evidence housed at the Museum of Welsh life confirms a belief disregarded by Burnett in the

[690] MWL manuscript LL1032
[691] MWL manuscript LL1016.
[692] MWL manuscript LL1037.
[693] Robert Roberts, *The Classic Slum*, 112.
[694] As indicated by John Wood's description of family meals, see 130-131 and 176 above.
[695] MWL LL1015 (see quotation from Mrs. Hughes, 176 above; Tibbot, *Cooking on the Open Hearth* (Cardiff: National Museum of Wales, Welsh Folk Museum, 1982), 38-39.
[696] See the comments made by the London-born Welsh girl who relished the beef-dripping, celery and radishes that Londoners ate, while she despised the monotony of the bland Welsh diet her parents had grown up eating, see 108 above.

1960s: that, in Wales, at least, the rural diet of nineteenth-century Britain was nutritionally superior to the urban one.[697] In the case of the Welsh agricultural labourer, the diet of the nineteenth-century rural working class was far superior to the diet of the English rural workers, but also to that of the Welsh and English working class living in urban and mining areas of Wales. As more people migrated to coalmining villages and industrial areas, with their smaller ovens, their lack of land for livestock, gardening or peat farming, their diet possibly became more varied, but its lack of vitamins, specifically folacin, had a detrimental effect on the health of Welsh children. Based on the current understanding of nutrition and neural tube disorders, the dietary changes that the population of Wales underwent in the 1880s which persisted throughout the first half of the twentieth century undoubtedly contributed to the high rate of spina bifida which plagued the urban and industrial areas of south Wales.

[697] Burnett, 10.

Chapter 13

Conclusion

In "Measuring Misery: body mass, ageing and gender inequality in Victorian London," authors Sara Horrell, David Meredith and Deborah Oxley examine the safety-first (the "breadwinner theory") and the bargaining models of intra-household distribution of nutritional resources in order to unearth the economic roots of nineteenth-century women's unequal nutritional welfare, but find that "neither model provides much room for individual agency and personal motivation, or cultural values, especially those of maternal sacrifice, parental love and filial piety":

> When the starving mother gave food to her children while going without, with protestations 'I am not hungry', was she bargaining, managing a risk, or acting out of love? When she told her husband that she had already eaten, was she acceding to his superior economic power? Was she trying to keep him working/happy/at home? Was she scared of his physical power and his wrath? When he acquiesced and ate his dinner, was it in ignorance of her hunger, acceptance of his need, or disregard for her wellbeing?[698]

In this thesis, I have attempted to answer all of these questions in order to allow "culture to enter the equation" of anthropometric and mortality studies, by returning to some of the techniques of social and food historians who recognized more than thirty years ago that nineteenth-century women received unequal shares of nutritional resources. By reviewing the primary literature used by food and women's historians, such as dietary surveys from social investigators, medical records and contemporary prescriptive literature, then seeking direct evidence from the nineteenth-century working class themselves by examining manuscripts, autobiographies and oral histories, this work has explored the diverse causes of women's unequal consumption

[698] Sara Horrell, David Meredith and Deborah Oxley, "Measuring Misery: body mass, ageing and gender inequality in Victorian London," *Explorations in Economic History*, 115.

and food refusal and its origins. I then attempted to make the many cultural, social and economic motivations for differential distribution relevant to the current economic and demographic debates by relating them to women's and children's health. By choosing to explore nutrition-related illnesses I revealed some of the ways in which nineteenth-century women's nutritional deprivation directly affected morbidity and mortality.

Bernard Harris writes, "The question of how resources were distributed within the privacy of the home is one which is always likely to be shrouded in a certain amount of secrecy…"[699] Rather than find alternative routes around this shroud, such as height and mortality data, I have lifted the veil to examine the social, political and cultural reasons that created and sustained nutritional inequality within the home to the detriment of women and children. Throughout this work, special emphasis has been placed on the changes that occurred during the long nineteenth century in actual diet and, also, in the cultural practices and expectations surrounding food, from emerging nutritional knowledge to how food was purchased and served, and how these changes affected maternal nutrition. Each section has illustrated how social, economic, political or medical changes during this period contributed to women's unequal consumption and self-denial of food. The final section addressed how deprivation and dietary changes affected infant and maternal health, specifically how insufficient vitamin D and resulting rickets caused infant death and pregnancy complications, and how the switch from a rural diet and a self-sufficient lifestyle to an urban diet and an industrial lifestyle contributed to a rise in neural tube disorders in Wales.

[699] Bernard Harris, "Gender, Height and Mortality in Nineteenth- and Twentieth-Century Britain: some preliminary reflections," 417.

Research Summary

The nineteenth century medical and political responses to new information about diet and the effect these responses had on working-class women must be examined within the context of the history of nutritional discovery and the cultural perceptions of certain foods. Focusing on nineteenth-century beliefs about diet during pregnancy and lactation reveals an alternative history of concern with maternal diet which contradicts popular modern feminist theories which blame government, physicians and surgeons for the late development of antenatal care and its lack of focus on maternal diet. The lack of attention by physicians, surgeons, and health administrations to maternal nutrition during the nineteenth century was not so much due to the medicalisation of childbirth or neglect of women on the part of the government and medical community, as it was the result of a largely incomplete understanding of nutrition or of the concrete relationship between maternal nutrition and infant health. Antenatal care developed as doctors tried to combat maternal mortality through the prevention of puerperal fever and toxaemia, which caused physicians to concentrate almost exclusively on monitoring women for labour complications, rather than working to improve the overall health of mothers and infants.

Women's diet, during pregnancy and otherwise, while still often insufficient and not equal in nutritional value to that of their husbands, was largely more varied and heavily supplemented than traditional budget studies and social investigator reports indicated, largely due to the ingenuity of women as domestic managers. Women also suffered frequent, periodic bouts of deprivation and desperation that were likely damaging to both their health and their children's health. The reasons for women's self-denial and for unequal food distribution in the home are multiple and varied. An examination of the historiography of the discourse surrounding intra-

family food allocation and women's diet among late twentieth-century historians exposes gaps in explanations previously offered by historians for women's non-consumption. Neither the "breadwinner effect" nor gender oppression, or the variations on these two themes, fully explain why women regularly refused personal consumption as an economic strategy. Further social pressures which promoted the practice of food denial were the centuries-old cultural traditions of associating meat with men and sugar with women, pseudo-scientific beliefs about the female digestive system being "delicate" and child-like, and the widespread associations, reinforced by Victorian middle-class behaviour, between fasting and femininity. The desire to ape middle-class behaviour and values contributed heavily to the practice of self-denial of food by creating a general working-class preoccupation with respectability that was prioritised above meeting one's dietary needs and compelled women to purchase household goods at the expense of personal nutrition. The focus on middle-class dining habits and practices placed women in the role of server rather than meal consumer in a manner never before made so distinct. The shift in market structures also created a new standard of respectability well above that of the 18th and early 19th centuries which created much personal anxiety for women that food-denial seemed to ease, both by giving women the impression that they were "freeing-up" resources to expend on household goods that were the trappings of respectability, and by creating a sense of control that is commonly associated with disordered eating.

Ultimately, food refusal and unequal distribution were heavily reinforced throughout the long nineteenth century because they do appear to have value, real or imagined, as long-term economic strategies. Food refusal, when practiced to maintain respectability, helped secure a support network of neighbours and local merchants on which women could rely during economic difficulties. When practiced ostentatiously

within the home, mothers' self-denial seems to have secured the affections and economic loyalties of children, making her the preferred parent and the recipient of the income of their young-adulthood.

The nutritional deprivation suffered by working-class girls, regardless of whether or not feeding was gender-biased, caused women to suffer disproportionately through health problems associated with giving birth. Rickets, one of the most visible of all nutrient deficiencies and highly prevalent in nineteenth-century Britain, complicated births and contributed to maternal and infant death and morbidity. While the findings of this section, based on data collected from three London hospitals (Guy's Hospital, St. Thomas's Hospital and the General Lying-In Hospital) are consistent with Irvine Loudon's work suggesting that contracted pelvises (caused by rickets) were responsible for between 1% and 11% of total maternal mortality in the second half of the nineteenth century, they also suggest a statistically significant association between rickets and labour complications. The analysis of cases from the General Lying-In hospital did not reveal a significant correlation between rickets and infant mortality, but the results suggest there may be a relationship between these two variables that a study of a larger sample set would be able to determine conclusively.

The relationship between nineteenth-century women's diet and infant health is finally explored through a study of spina bifida in Wales in an attempt to discover why rates of spina bifida were higher in urban areas of Wales than in rural areas during the first half of the twentieth century. The findings of this research suggest that the dietary changes that followed rural to urban migration and the change from an agricultural lifestyle to a market-integrated industrial lifestyle for a majority of the Welsh population reduced women's intake of folic acid leaving their children susceptible to neural tube disorders for which they had a genetic predisposition.

Future Directions

Of primary importance regarding future research would be a study of systematic nutritional discrimination against nineteenth-century female children using the approach this thesis has taken of seeking out and examining personal accounts and descriptions to determine if a feeding bias was, in fact, in effect. Although the preliminary findings of this paper did not uncover evidence of this kind of behaviour, it would be extraordinarily worthwhile to supplement the mortality and anthrompometric data in an effort to draw conclusive links as to whether or not women's health and mortality disadvantages could be directly linked to the systematic deprivation of girls, to perhaps create a consensus among those economic and demographic historians in disagreement.[700]

There is much work to be done on maternal nutrition and infant health in the long nineteenth century, and I am certain that as medical records become available for the first decade of the twentieth century, historians will be able to examine childbirth cases in greater detail. Larger studies of rickets and its effect on maternal and infant death and childbirth complications could be undertaken, along with similar research into spina bifida, in Wales and England, as well as in Scotland and Ireland, where genetic susceptibility makes the disease more prevalent. Nineteenth-century Wales, with its egalitarian distribution of family resources and its isolated, family-based economies juxtaposed with its rapidly developing urban-industrial areas would make very fertile ground for a close study of intra-family food distribution and neural tube disorders. What would be truly exciting would be a study of detailed labour records, indicating the duration of pregnancy for each patient, which would allow for

[700] See Bernard Harris, " Gender, Health and Welfare," 157-160 and Horrell, Meredith,and Oxley, 94-95, for overviews of the positions taken by various historians on this issue.

differentiation between premature infants and low-birthweight babies. Such information would lead to a much more accurate investigation into the impact of insufficient maternal nutrition on infant mortality at the turn of the twentieth century. Further work on the economic impact of debilitation from childbirth would also be a very interesting development on the work presented here. Ultimately I hope this work shows how the issues of women's nutrition and childbirth experience can be analysed in a historically and culturally sensitive manner. By focusing on working-class primary sources and using a comparative and inter-disciplinary approach, combining economic, anthropometric, medical, gender, as well as political and food history, I have reached fuller conclusions regarding the difficult questions of intra-family resource distribution, and their historical effects on women and children.

Appendix A

participant	age	married	nourishm	syphilis	rickets	infdeath	neodeath	matdeath	complica	infhealt	housing	no.child	brthwght	birthweight2	stillborn	prolapse
1	18	1	2	0	0	0	0	0	0	2	0	1	123	123	0	0
2	30	1	0	0	0	0	0	0	0	2	0	4	131	131	0	0
3	22	0	2	0	0	0	0	0	1	2	2	2	128	128	0	0
4	27	1	2	1	0	0	0	0	0	2	2	4	126.5	126.5	0	0
5	24	1	2	0	0	0	0	0	0	2	2	1	120	120	0	0
6	33	1	2	1	0	0	0	0	0	1	2	1	97.5	97.5	0	0
7	29	1	2	0	0	0	0	0	1	2	2	7	123	123	0	0
8	19	1	0	0	0	0	0	0	1	2	2	1	119	119	0	0
9	36	1	2	0	0	0	0	0	0	2	2	5	111	111	0	0
10	24	1	2	1	0	0	0	0	0	1	0	2	86	86	0	0
11	27	1	1	3	0	0	0	0	0	1	2	1	88	88	0	0
12	32	1	1	0	0	0	0	0	0	2	2	7	130	130	0	0
13	25	0	2	1	0	0	0	0	0	1	0	2	118	118	0	0
14	29	1	2	0	0	1	1	0	1	2	0	4	82	82	0	0
15	22	0	2	3	0	0	0	0	0	1	0	1	108.5	108.5	0	0
16	39	1	1	0	0	0	0	0	0	1	2	6	79	79	0	0
17	30	1	2	0	1	1	1	0	1	1	2	3	46	46	0	0
18	24	3	2	0	0	0	0	0	0	2	0	2	134	134	0	0
19	23	1	0	1	0	0	0	0	0	1	1	1	136	136	0	0
20	17	1	1	0	0	0	0	0	1	0	0	1	97	97	0	1
21	19	0	2	0	0	1	1	0	1	1	0	1	123	123	0	1
22	26	0	2	1	0	0	0	0	1	1	0	1	108	108	0	0
23	.	1	1	1	0	0	0	0	0	1	0	6	118.5	118.5	0	0
24	24	1	2	0	0	0	0	0	0	2	0	2	136	136	0	0
25	22	0	2	1	0	0	0	0	0	1	0	1	118	118	0	0
26	22	0	2	0	0	0	0	1	1	1	0	1	110	110	0	0
27	21	1	2	0	0	0	0	0	1	2	0	2	155	155	0	0
28	39	0	3	0	1	0	0	0	1	0	0	1	100.5	100.5	0	1
29	32	1	1	0	0	0	0	0	0	0	0	7	124	124	0	0
30	32	1	2	0	0	0	0	0	0	2	0	1	107	107	0	0
31	18	1	1	0	0	1	1	0	1	1	1	1	0	.	0	0
32	25	1	2	0	0	0	0	0	0	2	0	3	104	104	0	0
33	23	1	1	1	0	0	0	0	1	1	1	2	136.5	136.5	0	0
34	32	1	2	1	0	0	0	0	1	1	0	2	120	120	0	0
35	25	0	0	0	0	1	1	0	1	1	1	1	100	100	0	0
36	28	1	2	0	0	0	0	0	0	0	0	3	80	80	0	0
37	19	0	2	1	0	0	0	0	0	0	0	1	136	136	0	0
38	24	0	2	0	1	1	1	1	1	1	0	1	96	96	0	1
39	38	1	0	0	0	0	0	0	0	2	0	4	136	136	0	0
40	20	1	1	0	0	0	0	0	0	1	0	1	120	120	0	0
41	22	1	2	1	0	0	0	0	0	1	0	2	116	116	0	0
42	18	0	2	1	1	0	0	0	1	2	0	1	118	118	0	0
43	42	1	2	1	0	0	0	0	1	1	0	2	143	143	0	0
44	18	0	2	0	0	0	0	0	0	2	0	1	129.5	129.5	0	0
45	41	1	2	0	1	0	0	0	0	2	0	3	114	114	0	0
46	33	1	2	0	0	0	0	0	1	2	0	2	100	100	0	0
47	31	1	2	0	0	0	0	0	0	2	0	5	119.5	119.5	0	0
48	25	1	2	3	0	0	0	0	0	1	0	1	103.5	103.5	0	0
49	29	1	2	0	0	0	0	0	0	2	0	3	129	129	0	0
50	26	0	2	1	0	0	0	0	0	1	0	1	96	96	0	0
51	41	1	2	0	0	0	0	0	0	2	0	11	100	100	0	0
52	33	1	1	0	0	0	0	0	1	2	0	5	124	124	0	1
53	19	1	2	1	1	0	0	0	1	2	0	2	113	113	0	1
54	23	0	2	1	0	0	0	0	1	2	0	1	120	120	0	0
55	32	1	2	0	0	0	0	0	1	2	0	3	135	135	0	0
56	19	1	4	4	4	0	0	0	1	2	0	1	118	118	0	0
57	41	1	4	4	0	0	0	0	0	2	0	6	131	131	0	0
58	30	1	4	0	0	0	0	0	0	2	0	5	99	99	0	0
59	32	1	2	0	0	0	0	0	0	2	0	6	0	.	0	0
60	26	1	4	0	0	0	0	0	0	2	0	1	0	.	0	0
61	21	1	4	0	0	0	0	0	0	2	0	1	101	101	0	0
62	28	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0

General Lying-in Hospital Data Set

SPSS key

For:

Marital status, nourishment, syphilis, rickets, infant death, neonatal death, maternal death, complications (forceps, c-section, labour lasting longer than 24 hours, or listed as “difficult labour”), stillborn and prolapse

1-yes

0-no

3-unclear or conflicting information

4-no information

For:
Infant health: 1-bad 0-no comment 2-good
Housing: 1-bad 0-no comment 2-good
Marriage age in years
Birth weight in ounces
Number of child - parity

Appendix B

Crosstabulation and Chi-squared analysis investigation the relationship between rickets and labour complications

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
rickets2 * complica	61	96.8%	2	3.2%	63	100.0%

rickets2 * complica Crosstabulation

			complica		
			.00	1.00	Total
rickets2	.00	Count	37	18	55
		Expected Count	34.3	20.7	55.0
		Std. Residual	.5	-.6	
	1.00	Count	1	5	6
		Expected Count	3.7	2.3	6.0
		Std. Residual	-1.4	1.8	
Total		Count	38	23	61
		Expected Count	38.0	23.0	61.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.898[b]	1	.015		
Continuity Correction[a]	3.941	1	.047		
Likelihood Ratio	5.885	1	.015		
Fisher's Exact Test				.025	.025
Linear-by-Linear Association	5.802	1	.016		
N of Valid Cases	61				

a. Computed only for a 2x2 table

b. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2. 26.

Rickets and Complications: 2 N/A cases removed (rickets 2)

Significant: at both likelihood and fishers exact test
Complications higher than the expected count for complications
Women with rickets and no complications less than the number expected

Appendix C

Crosstabulation and Chi-squared analysis of the relationship between rickets and uterine prolapse

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
prolapse * rickets2	61	96.8%	2	3.2%	63	100.0%

prolapse * rickets2 Crosstabulation

			rickets2		
			.00	1.00	Total
prolapse	.00	Count	52	3	55
		Expected Count	49.6	5.4	55.0
		Adjusted Residual	3.5	-3.5	
	1.00	Count	3	3	6
		Expected Count	5.4	.6	6.0
		Adjusted Residual	-3.5	3.5	
Total		Count	55	6	61
		Expected Count	55.0	6.0	61.0

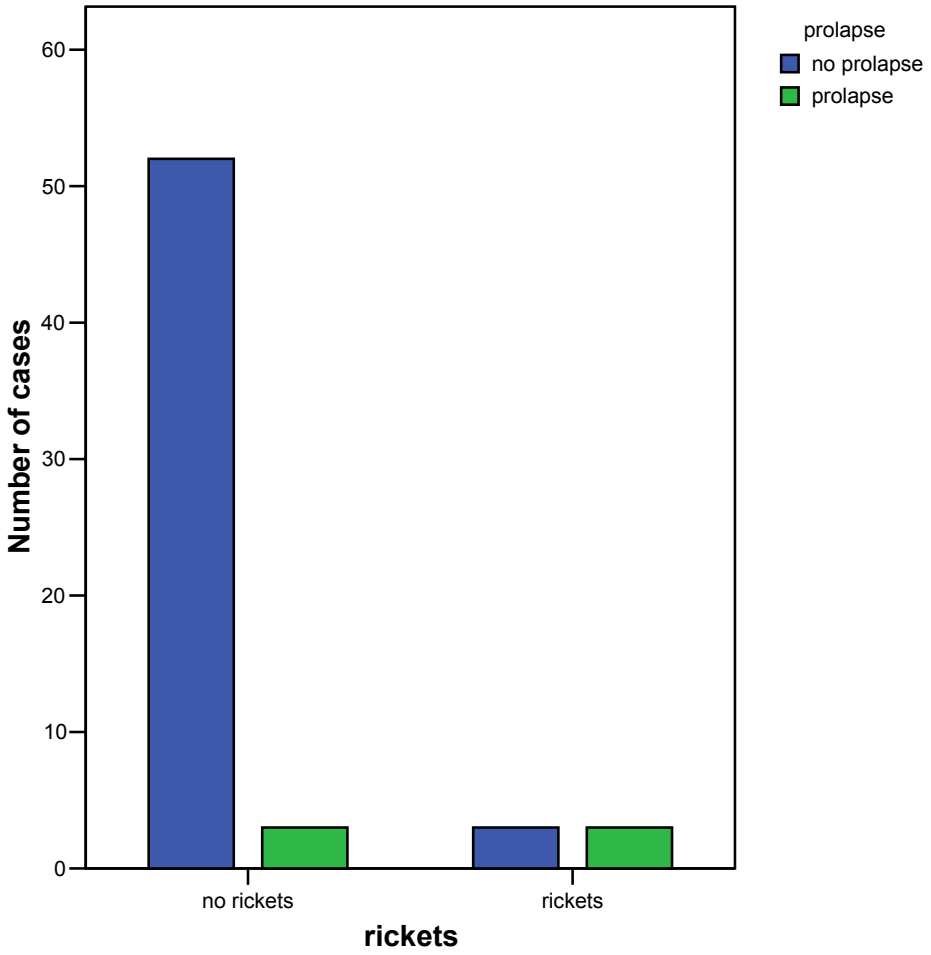
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	12.104[b]	1	.001		
Continuity Correction[a]	7.602	1	.006		
Likelihood Ratio	7.615	1	.006		
Fisher's Exact Test				.010	.010
Linear-by-Linear Association	11.906	1	.001		
N of Valid Cases	61				

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is .59.

Significant: at both likelihood and Fishers exact test
Rate of prolapse higher among those with rickets than the expected count for prolapse
Women with rickets and no prolapse less than the number expected


prolapse
no prolapse
prolapse
Number of cases
60
50
40
30
20
10
0
no rickets
rickets
rickets

Appendix D

Chi-squared analysis investigating the relationship between rickets and infant death

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
rickets2 * infdeath	61	96.8%	2	3.2%	63	100.0%

rickets2 * infdeath Crosstabulation

Count

		infdeath		
		.00	1.00	Total
rickets2	.00	50	5	55
	1.00	4	2	6
Total		54	7	61

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.130[b]	1	.077		
Continuity Correction[a]	1.198	1	.274		
Likelihood Ratio	2.325	1	.127		
Fisher's Exact Test				.136	.136
Linear-by-Linear Association	3.078	1	.079		
N of Valid Cases	61				

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is .69.

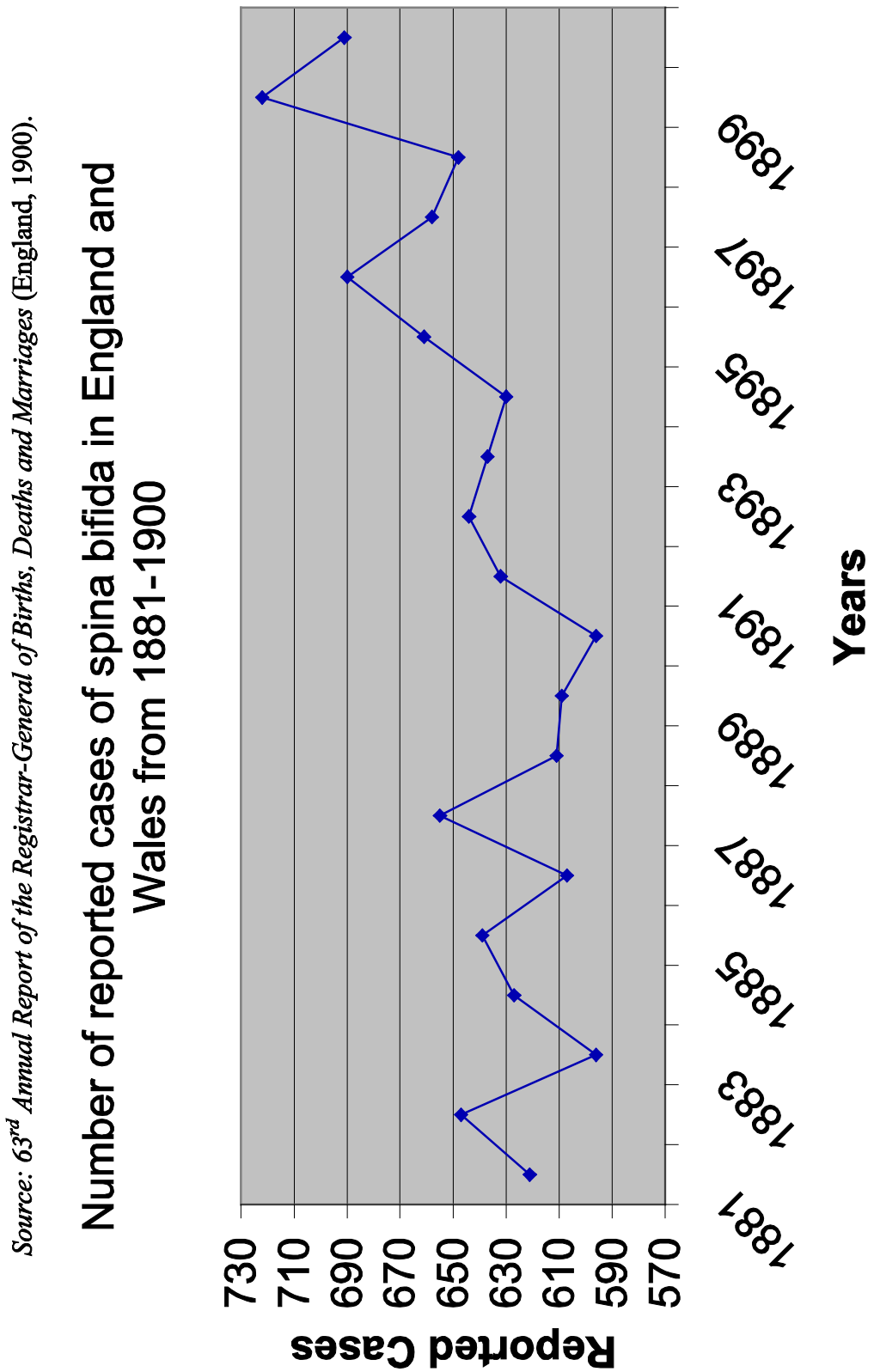
Appendix E *Source: "The Graphic," 40/1,048 (28 Dec 1889), 800.*



Appendix F *Source: Co-operative Society People's Yearbook (1926), 315.*

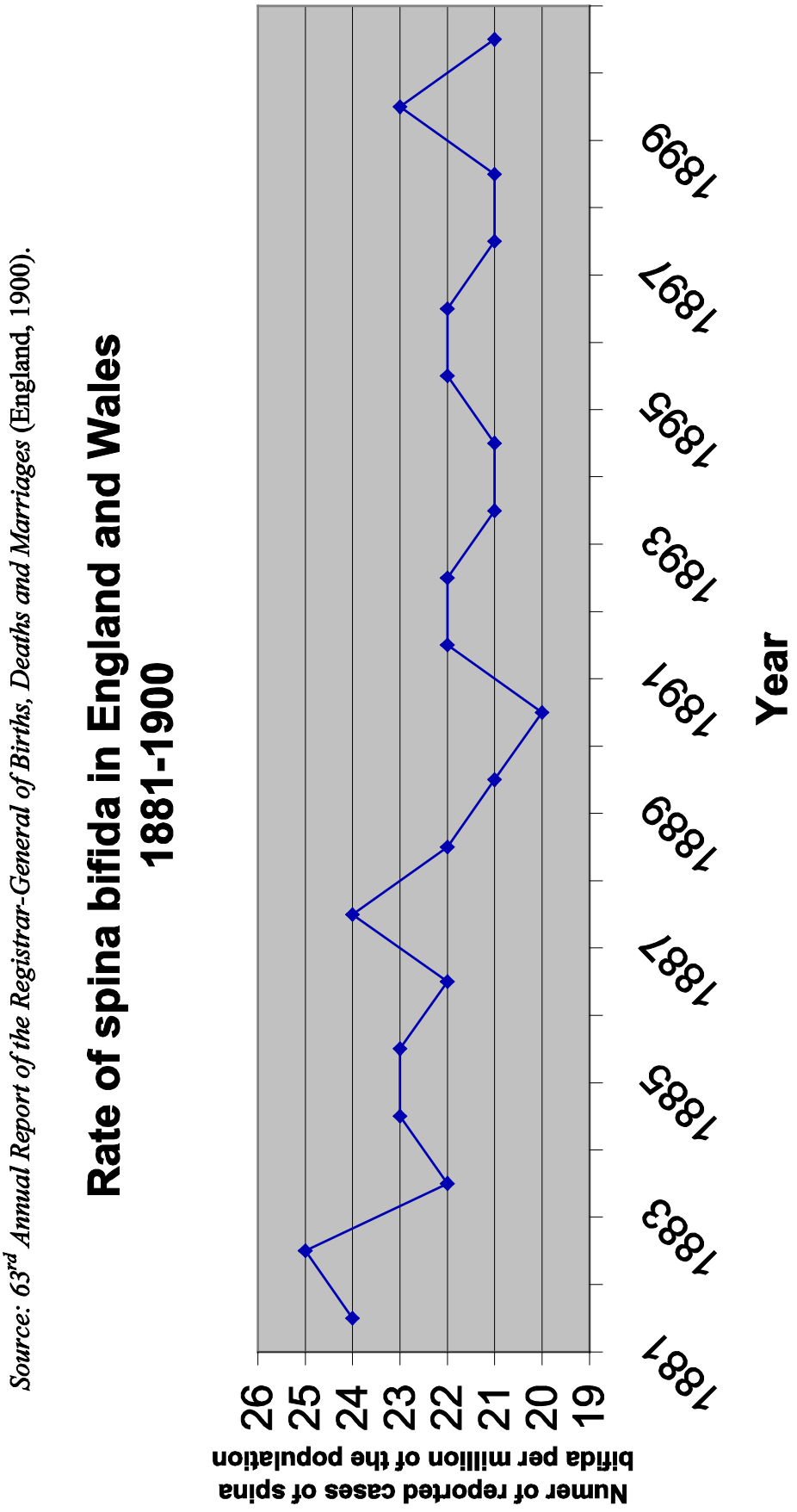


Appendix G



Source: 63rd Annual Report of the Registrar-General of Births, Deaths and Marriages (England, 1900).

Appendix H



Source: 63rd Annual Report of the Registrar-General of Births, Deaths and Marriages (England, 1900).

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